Decisions taken at the 10th Session of the ICEED

21-22 September 2010

İstanbul

ICEED10-Decision 01: ICEED Countries decided to establish a Task Force which works out the priorities of the Members, and find resources, and prepare joint projects. Task Force shall be gathered within 2 months after the 10th Session of ICEED. Each member shall designate a representative to the Task Force. Designation of the Task Force shall be done in 1 month. The communication of the Task Force will be carried out mainly via correspondences. The Task Force will start with the following proposed topics:

- ✓ Extension of Flash Flood Guidance System (FFGS) to the ICEED countries
- ✓ Using radar products in early warning systems.
- ✓ More efficient use of EUMETSAT and SAF products in weather forecasting, early warnings and climate studies.
- ✓ Calibration of the instruments.
- ✓ Quality Management Systems.

ICEED10-Decision 02: The ICEED Countries express their interest to exchange experts and students on weather forecasting, NWP, early warning, climate and climate change studies. The countries shall inform the Task Force on their training needs and capacity to host experts and students within 3 months. The Task Force shall investigate possible funding mechanism for exchange.

ICEED10-Decision 03: The ICEED Chairperson shall invite all members to exchange their migration plans to TDCF and identify their current status and difficulties in this regard. The Chairperson will seek support from the Task Team on Regional Migration to TDCF of Working Group on Technology Development and Implementation (WG/TDI) for providing assistance to the members.

ICEED10-Decision 04: The ICEED Chairperson shall address the Director-General of ECMWF and the Chairperson of ACCS to raise the issue of providing the non-member states with the ECMWF products related to the early warnings.

ICEED10-Decision 05: ICEED Countries decided to strengthen the cooperation between countries concerning the provision of the climate services including the VRCC activities under the Pilot phase of WMO RA VI RCC Network.

The host countries of VRCC will inform the RA VI Task Team on RCC on their activities.

ICEED10-Decision 06: ICEED Countries decided to establish a web page for the ICEED. Turkish State Meteorological Service will operate and host this web page.

ICEED10-Decision 07: ICEED Members took note the monitoring and management of the GCOS at regional level and decided to review the GCOS Regional Action Plan until next meeting.

Report of the 10th Session of the ICEED

21-22 September 2010

İstanbul

1. Registration of participants

Participants from 10 South-East European (SEE) National Meteorological and Hydrological Services **(NHMSs)** were present at the meeting: Bosnia and Herzegovina, Bulgaria, Croatia, Former Yugoslav Republic of Macedonia, Moldova, Montenegro, Romania, Serbia, Slovenia, and Turkey. Representatives from three countries were missing: Albania, Greece and Hungary. Lebanon, Jordan, Syria and Israel were invited as observer countries. In addition to the representatives of SEE NMHSs, also representatives of the World Meteorological Organization (**WMO**), the WMO Global Climate Observing System (GCOS), the European Center for Medium-Range Weather Forecasting (**ECMWF**), and the European Organisation for the Exploitation of Meteorological Satellites (**EUMETSAT**) were present at the meeting.

2. Opening of the session

The session started at 9:30 on 21st of September 2010 and was opened by Dr. Klemen Bergant, Director of Meteorological Office at the Environmental Agency of the Republic of Slovenia and current president of ICEED. On behalf of the host, the Turkish State Meteorological Service **(TSMS)**, welcome address was expressed by Mr. Mehmet Çağlar, the Director General.

Mr. Mehmet Çağlar, Director General of the Turkish State Meteorological Service was appointed as the new president of ICEED. He took over the chairmanship of the meeting and also expressed his welcome to the directors and other representatives of South-East European NMHSs as well as representatives of WMO, WMO-GCOS, ECMWF, EUMETNET EIG and EUMETSAT.

3. Adoption of the agenda of the 10th session

The proposed agenda was unanimously adopted by the participants.

After adoption of the agenda, a bress briefing was held. Short information about the meeting and its importance was given to the press by Mr. Mehmet Çağlar. Mr. Georgi Kortchev, Director General of National Institute of Meteorology and Hydrology of Bulgaria; Mr. Ivan Čačić, Meteorogical and Hydrological Service of Croatia and the President of the RA VI (Europe); Mr. Enes Sarač, Director of the Federal Hydrometeorological Institute of Bosnia and Herzegovia; and Dimitar Ivanov, Chief of Regional Office for Europe of the WMO also expressed their thoughts to the Press.

4. Short report of the 9th session, 10-11 December 2009, Ljubljana, Slovenia

Dr. Klemen Bergant, Director of Meteorological Office at the Environmental Agency of the Republic of Slovenia presented the main outcomes of the previous ICEED session, which was held in Ljubljana, Slovenia, 10-11 December 2009, and organized by the EARS of Slovenia.

5. Overview of the progress in the SEE NMHSs between the 9th and 10th ICEED Sessions

Representatives of the 10 NMHSs gave their reports on the progress at their institutions between the two ICEED sessions.

6. WMO RA VI activities related to the SEE NMHSs

Chairman invited Mr. Ivan Čačić, Meteorogical and Hydrological Service of Croatia and the President of the RA VI to present WMO RA VI activities related to the SEE NMHSs. Mr. Ivan Čačić gave brief information about the status of the RA VI new management and working structure. Mr. Čačić told that RA VI Management Group had its third meeting and finalized the establishment of the work structure of the subsidiary bodies by endorsing a number of Task Teams related to specific deliverables. He shortly gave short information about the working groups and introduced the members of the task teams. He said the most in kind contribution to these teams is from Turkey with nine experts, then Romania with six, Hungary, Bulgaria, Montenegro and so on. EC-LXII urged the PRs to facilitate the participation and voluntary contribution of the TT experts. In his presentation, he stressed that strategic planning process should continue in view of the need to align - the regional Strategic/Action Plan with the new WMO Strategic Plan (2012–2015). He said to support the implementation; the Members are encouraged to develop their national Action Plans so it will be inspration for National Plans in line with the regional Strategic Plan. He also talked about priorities and challenges of the region. Among the priorities, he underlined RA VI will play a major role in the Global Framework of Climate Services **(**GFCS) and RCC Network activities; strong capacity building regional programme to overcome the existing disparity abilities of the NMHSs; enhancement of the role of the NMHSs in the disaster risk reduction; common methods of defining and determining the socio-economic benefits of RA VI NMHSs capitalization of the already existing partnerships with European meteorological infrastructure (EUMETSAT, ECMWF and EUMETNET); effective capacity building assistance by closer cooperation with relevant regional organizations (e.g., European Commission), financing institutions (e.g. World Bank) and other international and intergovernmental bodies and improving the links with the Mediterranean sub-region of RA VI. He said Turkey is an important glue and a partner to facilitiate this acitivity. Mr. Čačić mentioned also South Eastern Europe Disaster Risk Management and Adaptation Programme-SEEDRMAP and SEECOFs among important RA VI/SEE assets and achievements. He explained SEECOF IV is planned in autumn 2010 as a face-to-face event. It is envisaged to continue with 2 SEECOFs per year, targeted at winter and summer seasons, one forum in online mode and one as a physical meeting, including training, capacity building and climate change session. As for major challenges, he emphasized the importance of data policy, relationship between the NMHSs and the private service providers; implementation of the Single European Sky and related effects on the provision of aeronautical meteorological services.

Mr. Ivanov, the WMO represantative for Europe, would liked to say something on working groups RA VI established last year. He highlighted that the idea of new structure is to have flexibility and to address really important matters that all the members of RA VI would benefit. First meeting was held in Offenbach. It was on service delivery and partnership. This group set format of these meetings with the idea that we need to change the way we work in regional association and we need to deliver and work according to Region's needs. Previous practice of having one meeting per year is just to produce one report would not help. This first group has very good example. They are going to work on the identified challlenges for example, socioeconomic benefits, all members need to demonstrate the benefits of their services to the government in order to ensure proper financing, good visibility and so on.

There is a very focused task team on developing on common methodology and on assessment socioeconomic benefis. He called the Directors of the ICEED countries' NMHSs to actively participate in working groups/task teams activities since the all the members of task teams are from SEE countries. It is very important to ensure the program that we are developing for the intersession period 2010-2030 will be fulfilled.

Mr. Čačić added another thing the working group will collaborate very closely with the Commissions particulary for Commission for Basic System and also other Commissions also the Commission of Agrometeorology so I triggered connection between task teams. There is a horizontal connection to avoid duplication and to get to the point what is important. It is important to understand mechanisms of the WMO. WMO has three pillars. It is Commission, Regional Association and Secretariat. Commissions are vehicle of whole ingredients and substances and implementation for these are needed for RA. Needs what are issued to the Commission, I think this understanding with Commission and RA is extremely important for this meeting with RA Presidents and entertainer Commissions is important to avoid duplication and to get real action from entity whose mission should not take part of something they are not needed to do.

Chairman said the WMO represantative touched upon on a very good point that task teams are established and the members of task force should attend the meeting regularly not time to time.

Mr. Čačić stressed key issue is not meeting, key issue is work. It was foreseen this work should be done by correspondence mostly, it will be working time in the Service. The question was not to let people to go to meeting, to give time and resource for work.

7. Science and technology development and implementation

7.1 EUMETSAT Third Generation Satellites:

Chairman invited Mr. Bruno Mullet, working at MTG system, to give presentation about EUMETSAT future geostationary satellites. Mr. Mullet explained evaluation of EUMETSAT Geostationary Satellites, overview and benefits of METEOSAT THIRD GENERATION (MTG) Satellites. He said that MTG Satellites are successor of METEOSAT SECOND GENERATION (MSG) Satellites and MSG is spinning satellite while MTG is three axes stabilized satellite. He continued to provide more information about MTG satellites and their payloads that MTG has imaging and sounding satellites. MSG will have Sentinel payload from GMES. Imaging satellites will be successor of SEVIRI including lightening imaging, DCP and Search and Rescue and Sounder satellites will have Visible, IR, near IR and UVS (Sentinel). He summarized performances of Satellites that full Earth disc imaging will be carried out every ten minutes repeat cycle having one Km solar channel resolution and two Km thermal channels resolution. Also there will be fast imagery called Rapid Scan with twenty minutes of cycle and 500 m and one Km resolution for four channels. IR channels has with sixty minutes cycle and four Km resolution and there are 1700 channels in long wave and mid IR. He gave information about Lightening Imaging saying that Lightening Imaging will be global coverage measuring optical emission of discharges cloud to cloud and cloud to ground. He said that it is planned that first MTG imaging satellite out of four will be launched in December, 2017 providing at least twenty years of operation while first Sounding Satellite out of two will be launched one and half year

later after the first imaging satellite with the rapid scan and full disc scan capabilities. He stressed that MTG will have longer duration than MSG. He explained ground segment configuration that there will be several ground segment stations including TCC for command and control, dedicated mission data acquisition station to receive satellite payload data and mission operation facility for planning and performing operations. He gave brief information about the products generation that image navigation and rectification and Level 0 to Level 1 products will be generated at the central facility while Level 2 products will be generated at the central facility and at the decentralized SAF centers. He mentioned that data dissemination to the users will be via Eumetcast and user services will be similar. He also said that data acquisition site diversity is needed to receive download data in Ka band is which affected by rain. Then he overviewed the differences between MTG and MSG dissemination that MSG has 3 MB/Sec data reception and dissemination in HRT and LRT while MTG has 400 MB/Sec processing and archiving near real time. He said that since dissemination will be too costly, dissemination rate will be reduced to 100 MB/Sec. He explained performance of MTG Satellites that new channels will have better spatial and radiometric resolutions:first Meteosat Satellite had only three channels in Visible spectrum, MSG has more channels in near IR and IR spectrum in addition to Visible channels of first Satellite and MTG redefines these, adds new channels and includes four channels for rapid scan with 500 meters resolution. He explained mission benefits of MTG satellites that MTG imaging will provide more information about air quality monitoring, better column precipitable water estimation, improvement of retrievals of cirrus clouds, more information about cloud microphysics, and better fire detection. He explained IR Sounder (IRS) that longwave and middle wave are presented with 1700 channels with better vertical and horizontal resolution of Moisture, Wind and Temperature and three dimensional perspective of atmosphere to fill the gap of ground and polar orbiting sounders. He said that sounders will cover complete Earth disc operationally over six hours. As the council agreed, Earth disc will be divided into four zones to make sure European area (zone 4) is covered frequently (every thirty minutes) with the scan strategy that zone 3 is scanned five times per 6 hours,zone 2 four times per 6 hours and zone 1 three times per 6 hours. This willensure that all zones will be have three consecutive sounding with a repeat cycle of thirty minutes providing better instability and nowcasting information, three dimensional moisture and Atmospheric Motion Vectors (AMV), more information about low level moisture which will allow better depiction of Hydrological Cycle to improve hydrological models and better precipitation forecasts, to improve forecast of convective initiation processes and more info about climate such as trace gases and Ozone. After that he summarized Lightning Imaging and UV Sounders that Lightning Imaging will have capacity for full tracking of lightning providing insight into evolution of active convective areas / storms. Lightening Imaging will permit to validate convective initiation forecast, to support climate and air chemistry; intercloud and cloud to ground lightning information will be complement to ground lightning measurements to improve air traffic safety, to provide information about the impact of thunderstorms on climate change, and to help short range forecast and verification of nowcasting. He said that UN Sounder will scan mainly European areas in three bands, UV, VIS and near IR with the resolution of eight Km and primary products will be of Ozone, Nitrogen and Sulfur dioxide and Aerosol. He also mentioned that it is confirmed that Turkey is covered fully by UN Sounder. He finished his presentation saying that MTG is much more complex satellites system.

Mr. Bergant commented that there will be a lot of scientific developments in regards with MTG and asked if upgrade of current receiving stations are needed to receive data and products.

Mr. Mullet explained that MTG data dissemination will be an evolution of Eumetcast dissemination system which is downloading data with DVB standards. If someone wants to receive full HRT data, larger antenna is required, however, to receive LRT data current systems do not need to be upgraded but processing power need to be increased considerably.

Mr. Čačić expressed that policy of Eumetsat that products and outcomes will be followed by SAF to help NMS to digest products.

Mr. Mullet explained that evolution of the SAFs is a part of MTG budget such that MSG SAF will evolve to cover MTG processing.

7.2 Regional Projects of ECMWF

Mr. Manfred Klöppel, Scientific and Technical Assistant to the Director-General of the ECMWF introduced regional project of ECMWF. He began to his presentation showing the improvement of forecasting scores of the ECMWF by a time series graphic. He told that they are able to forecast ten days ahead in a quite reasonable score in 2010 compare to early 1980s. At that time, they were forecasting 5 days ahead. He mentioned the member states and cooperating states. There are 32 states supporting them, 18 member states and up to now 14 co-operating states. He said Israel will join cooperating states very soon and talks with the former Yugoslav Republic of Macedonia and Bosnia and Herzegovia are going on well. Polland is considering applying for the full membership. We are in negotiation with Tunisia. Slovenia, Hungary, Croatia and Iceland that are from cooperating list are going to apply for the full membership and he thinks at this time next year they will have four new members. He summarized ECMWF's role as a component of European Meteorological Infrastructure. Mr. Klöppel informed participants about key developments and events of the ECMWF. Among them he underlined their new forecasting system and increased horizantal resolution and intention to increase vertical levels, their good early warnings for several major severe weather events including tropical storms, recent heat wave in Russia and torrential rains in Pakistan. He gave short information on new amendment in ECMWF Convention entered into force this June. He told that, for example, the Director of the ECMWF has become the Director General of the ECMWF and one of the main reasons of amendment was to allow countries for member states. He also mentioned an important project proposal of the ECMWF named ERA-CLIM. The proposal selected for FP7 funding is about climate monitoring. In the project ECMWF will continue reanalysis work. A reanalysis for the whole 20.Century's data as Era20c will be performed. He emphasised the contributions from countries about data especially historical data for the Era20c and asked for the data available even historical data from the participating countries for reananlysis work. He added they have an important role in GMES, reanalysis is important for the GMES and next co-project within GMES will be a climate-co project, climate monitoring and definetely the EC has indicated that they are very much interested in our reanalysis work. We will quite important there. He told that they produced a corporate ECMWF video. It is on their website and youtube. They are just in process of revising their current long term strategy, now in 2006-2015 and next will be 2011-2020. In their drafted list, early warning of severe weather events will be their highest priority; there will be no modification in their prime objective. He said they produce news

letters; it is on ECMWF website and also sent out. He encouraged participants to have a look at the ECMWF home page and follow news.

After the presentation, Mr. Bergant emphasised the usefulness of the ECMWF data to have medium range warning and products of extreme weather indexes. He asked whether he knew about the special resolution of the ERAclim project reanalysis data. Mr. Klöppel replied he would inform him later on this issue.

Mr. Čačić congratulated them on excellent products and successful warning of early indicators flood events they experienced. He told concerning reanalysis ERA20c, there would be a lot of surprises in climate perception. Mr. Klöppel told that reanalysis confirms global warming trend. Mr. Čačić mentioned together with warming there is not much humidity related to the area what we had. That means it will be severe but not too much for precipitation involved in these severe events.

Mr. Ivanov asked Metwiev expansion to countries that are part of DRR project and avaliability of data related to warning products for non-member states, co-operating states. Mr. Klöppel said that currently co-operating states can get these products and as regards non member states, we are following the Oslo Decleration and it was up to ECMWF Member States to decide on our data policy. So far everthing is not available. For the warning, it was not the case and they are working on that issue and that needs Council Decision. As for Metview, it is coming there soon, coorperate states will get it.

Mr. Bergant proposed to send a signal to ECMWF Council Data that warning data could available to be accessible Non-European, non-member countries would be good message from our community to the ECMWF council. Mr. Klöppel replied that there were two possibilities for this. It was to send a letter either to the ECMWF Director-General or to the Chairman of the Advisory Committee of Co-operating States.

Mr. Čačić should be also a conlusion of Advisory Committee of Co-operating States because whenever it is the situation with warning, this is the general rule that data id free of charge somehow. Even EUMETSAT you can use data and product, it is concerned dangerous situation. Mr. Klöppel it is the case now. The country approaches, Directory General is requesting additional data because of the crisis then it is provided. Mr. Čačić said I am looking forward to see it in documents of Advisory Committee.

Chairman said this issue should be one of the decisions we are going to tak today or tomorrow and then raised in the ECMWF Council Meeting.

Mr. Bergant had additional comment: as Mr. Klöppel said there are only two options. This data are already available to the co-operating states. A good signal should be this recommendation letter by the ICEED Chairman.

7.3 WIS/ WIGOS Regional Maritime Meteorology Centre (RMMC)

Mr. Čačić mentioned this issue in his previous presentation related to WMO RA VI Activities. He talked about activities in the area of marine meteorology and activities for establishing the RMMC of the Meteorogical and Hydrological Service of Croatia. The proposal for the creation of such a centre of excellence located in Croatia, has been, for the first time,informally discussed at the Conference of South-Eastern-Europe NMHS's Directors (ICEED), held in Dubrovnik (Croatia) in May 2006. He continued his presentation giving

information on activities related to recognition for Marine Meteorology in Croatia under the WMO Information System (WIS) as an official Data Collection or Production Centre (DCPC) for the Eastern Adriatic.

8. Capacity Building

8.1 WMO Regional Instrument Centre (RIS) for SEE

Presentation prepared by Drago Groselj, Head of Calibration Laboratory and responsible for the activities of WMO Regional Instrument Centre was made by Klemen Bergant, Director of Meteorological Office of Slovenia. Mr. Bergant said most of their activities during last one year focused on ongoing EC financed project titled "Regional cooperation in South Eastern Europe for meteorological, hydrological and climate data management and exchange in support of disaster risk reduction" (DRR/SEE Project). He explained activities on enhancing the capacity of the NMHSs of the Western Balkans for standardized calibration and maintenance of observational instruments included in the Project. He underlined the main objective of the activity is to ensure sustainable quality of the meteorological and hydrological data produced and exchanged in the region. The activity was divided in two parts. First one was an assessment mission to each target country which actually took place from November 2009 to May 2010. This was followed by Training Workshop on Calibration at the Regional Instrument Centre in Slovenia in May 2010. He talked about the situation on calibration issues in the region: The stiuation is very diverse. There are some NMHSs in the region without calibration laboratory in their structure: Albania, Bosnia and Herzegovina, Former Yugoslav Republic of Macedonia, Kosovo (under UNSCR 1244/99) and Montenegro. On the other hand Croatia, Serbia and especially Turkey have very good laboratories with traceable reference standards and uncertainty evaluation. Turkish calibration laboratory is also accredited according to the ISO/IEC 17025 standard. Traceability of reference standards to the national or international level is clearly recognized in Meteo services with calibration laboratory. In some cases traceability is linked to our RIC (pressure, humidity), but due to logistic problems (customs) traceability is commonly linked to national metrological institutes. In those laboratories traceability is disseminated to the instruments under calibration. Only one intercomparison of basic metrology parameters (temperature, humidity abd pressure) using calibration kit was organised by RIC in 2007. Due to different reasons, there were only two participants in this ILC (Croatia and Hungary). Mr. Bergant continued his presentation giving brief overview on the training and discussions and suggestions during these activities. He said that the most important one would be a need to set up a calibration kit for basic metrology parameters for on-site testing of field measuring instruments. Meteo services without calibration laboratory would use this kit for instruments field testing. RIC Ljubljana would be responsible for periodical recalibration of travelling standards. Another possibility would be that RIC Ljubljana offers also a free of charge calibration of field measuring instruments to certain limited extend. He noted that RIC Ljubljana would organize a round robin intercomparison of basic metrology parameters using calibration kit in the future and added RIC could help NMHSs who had plans to establish calibration laboratory in the future in developing calibration system and procedures and automatisation in calibration.

Chairman noted that calibration issue would be one of the cooperation area in the region and a decision on this topic is needed and it would serve to help standartization process in calibration.

8.2 Calibration Laboratory at Turkish State Meteorological Service.

Chairman invited to Mr. Hamza Aydın CESSUR to introduce the Calibration Laboratory in TSMS. Mr. Cessur told that the TSMS Calibration Center (Kalmer) worked in accordance with TS EN ISO/IEC 17025:2005 standards and had been accredited since 30th of April, 2010 in the fields of temperature, relative humidity, pressure and wind speed. Other the TSMS laboratories not accredited yet but working in accordance with TS EN ISO/IEC 17025:2005 standards are Precipitation Laboratory and Ssolar Radiation Laboratory. He gave an overview on the organizational chart, environmental conditions and stuff of the Laboratory. He presented the reference devices and medium providers and scope of accrediation for temperature, relative humidity, pressure and wind speed. He also mentioned the inter laboratory comparison results of the laboratory. He emphasised that the laboratory is one of most prestigious calibration laboratories among country in its fields of measurements and it is aimed to be respected, prestigious and successful laboratory not only in the country but also in an international level.

Mr. Bergant from Slovenia expressed the TSMS have a very good capacity in this calibration field and asked whether there is any possibility to help neighboring countries. Mr. Cessur answered that they have some experiences and can help on how to build the laboratory, selecting and installing devices, costs and accrediation process.

Chairman noted once again calibration laboratory could be one of coorporation areas. He added that their laboratory provide services not only at national but also at regional and international level and offered help to neighboring countries.

Mr. Ivanov from the WMO, asked how the TSMS occupied its national system because it has very large network of stations, mostly automated stations, whether the TSMS manage regular check up of calibration exersice. Mr. Cessur explained that the laboratory established two years ago and they dealt with the accrediation process last year and at the same time they started calibrations but they didn't finished yet. Regular calibration process will take several years.

Mr. Čačić stressed that it is important to have these laboratories as much as they can in countries. He heard some meetings with the laboraties in the last presentation, also for interlaboratory comparabilities or whatever, there should be operative meetings business as usual if they could build in this direction. Mr. Cessur said it would be very useful.

8.3 SEE Virtual Climate Change Centre

Chairman invited to Mr. Predrag Petkovic to present activities of the SEE Virtual Climate Change Center (SEEVCC). Mr. Petkovic presented the issue on behalf of Mr. Goran Pejanovic, the Assistant Director of the Center who prepared the presentation. He began his presentation saying that he will give short information on the progress of the Center activities since last year. He briefly mentioned background of SEEVCC and the updated information about partners. He explained that partnership with Oxford University is under consideration and MoU is expected to be signed (determined) late in October. He said it will include issues related to climate assessment. Mr. Petkovic talked about WMO VI RCC Network and Serbia's participation in all of three RCC nodes with the responsibility of SEEVCC. He explained that research and development focus is on the creation of regional earth modelling based on atmosphere-ocean coupled system with dust and hydrology components. Using collected climate data, the center creates monthly and seasonal maps of mean temperature and accumulated precipitation. He told that they gather temperature and precipitation data from

around 450 stations in SEE domain. Their main data source is European Climate Assesment and DataSet while some data are collected from climate bulletins and synops, as well. Using climate data they create climate monitoring products: monthly and seasonal maps of 2m temperature anomalies and accumulated precipitation percentage of normal. He added that climate data and climate monitoring products are used in various validation of seasonal forecasts and in SEECOF process. Mr. Petkovic talked about the coupled atmosphere-ocean RCM used for regional seasonal forecast for 7 month ahead. Model integration started on 16th of each month having 41 ensemble members, initial and boundary conditions ECMWF Global Seasonal Forecast with resolution of 35 km for atmosphere and 20 km for ocean. They produce maps of ensemble mean of monthly and seasonal precipitation, 2m temperature, 2m temperature anomalies, precipitation percentage of normal and monthly SST for the Mediterranean Sea. These products are available on the website on the twentieth of every month. He illustrated some examples of seasonal ensemble forecasts. He said anomally correlation cooefficient for validation is calculated for three forecast cycles starting from June 2009 to August 2009 for each forecast month individiually and the RCM had better scores than ECMWF except in January when both models did very poorly. Based on this, RCM gives added value to global model and it can not improve in cases where global model underperforms. He also talked about non-hydrostatic multiscale model global forecast and operational Dust REgional Atmospheric Model (DREAM). For climate projections they use coupled atmospheric model RCM using initial and boundary conditions from SYNTEX-G Global Model. In later parts of the presentation, he showed impact studies using RCM projections. He said model compared 17 stations of vine growing area in Serbia and model had some bias which was corrected using statistical model bias correction method. Results showed that at the end of the century climate of present vineyard areas (100-200m) will be shifted at higher altitudes (1000m). He highlighted that one of main components of their model is hydrology. They have coupled atmospheric model which already contains land surface model with dynamically driven hydrology model, Hyprom. It consists of two parts: HYPROM 2D for surface runoff and HYPROM 1D for river routing. He added that model could be used both for short and long range forecast and is capable for flash flood events modelling. He concluded his presentation saying that the website (www.seevccc.rs) is available with operational graphical products: climate data, climate monitoring products, seasonal and dust forecasts. With establishing MARS data base, all fields will be available in gridded format and all were used in recent SEECOF3 and would be available on SEECOF4 during next November.

Mr. Manfred Klöppel from the ECMWF was pleased to see that their products were used in regional seasonal forecast. He gave information that they are going to release the next version of seasonal forecast model in higher resolution. Mr. Klöppel asked who were the main users of the SEEVCC regional seasonal forecast and whether they had any commercial user. Mr. Petkovic replied that they still did not have any commercial users. There are some talks ongoing with several stakeholders. Their distance heating company in Serbia started to use that product and had contract with them as they had earlier been using their ECMWF products and old traditional numerical weather forecast products in met operations. They have short-medium range forecast section and long range forecasting under meteorological operations section. This company has contract with them for years on that issue. Last year for the first time they began to implement dynamical downscaling in order to predict long range forecasting. But the contract is expected to be signed in early October and negotiations will start. They have another issue connected to this. They do not have this year a position on their budget for incoming funds. Serbian Government deducted it for this year. Mr Petkovic highlighted that with adoption of a new law on Meteorological and Hydrological activities,

RHMSS, will gain the status of legal entity, like some sort of public company, so they will gain possibility to use that part of that account and funds for equipment and training.

Ms. Carolin Richter from the GCOS said that she is pleased to see they use observations of precipitation and temperature information from German Meteorological Service (DWD) in the SEEVCC and surface observations based on GCOS Surface Network, GSN and quality network as well.

8.4 EM Virtual Climate Centre

Following SEEVCC presentation, Mr. Ismail Demir came to the podium and enlightened the participants on Eastern Mediterranean Climate Center (EMCC) activities. He expressed that the TSMS took initiative at the meeting of Implementation of Pilot Phase of RA VI RCC Network held on 20-21 October, 2008 in Geneva, Switzerland in order to carry out the following responsibilities**:**

- Monthly or quarterly bulletins analysing and interpreting GPC products
- Monthly maps of TT, RR
- Eastern Mediterranean dataset.

Mr. Demir continued his presentation introducing the Center's website (www.emcc.dmi.gov.tr). He said the website started to give service in 1 June 2009. Target countries were selected according to the RA VI except Egpyt. Egpyt is included although it is not in the WMO RA VI. He mentioned the circular and regulations made after creation of the website. Currently climate monitoring and seasonal forecast services are provided for seven countries in the region. Its content will be enhanced gradually. Base map is prepared by the ArcGIS 9.3. He expressed the first service is about monitoring. 2m temperature and precipiation have been monitoring for previous month. They use the 130 stations' data of the TSMS for Turkey and NCEP reanalysis data for outside of Turkey. Resolution of NCEP reanalysis data is 2.5 °. He explained monitoring data has been reprocessed, spatially enhanced and mapped by using ArcGIS Spatial Analyze Tool and Inverse Distance Weighted (IDW) interpolation technique. After the technique applied, cell sizes become 3x3km. Products are updated every month. End of the each month, the products are delivered via ftp. As soon as 3 products are copied to the server, website is automatically updated. He said second service is prediction. Four maps are prepared: 2m temperature and precipatation anomaly maps for each of three moths and average of these three months. ECMWF seasonal forcecast data is downloaded for drawing seasonal forecast map over the EMCC region. After using ArcGIS Spatial Analyze Tool and Inverse Distance Weighted (IDW) interpolation technique, cell sizes become 27 km - 3 km. Seasonal forecast is updated every month for the next 3 months He also underlined that monitoring data could be easily downloaded from the website. He showed some examples of products provided on the website. He also talked about their regional climate model studies and plans to put model outputs in the website. Two different regional climate models have been run to obtain possible changes in future climate of Turkey. These are, RegCM3 of the International Centre for Theoretical Physics (ICTP) and PRECIS of Hadley Centre of the UK Met Office with a resolution around 25 km. He highlighted another EMCC service: The training courses on the web site menu which refers to the website of the WMO RA VI Regional Training Center in Turkey. More than 370 people were trained in the Center on topics of climate, regional climate models and other meteorological issues. He ended his presentation illustrating scientific papers related to studies on regional climate models and climate indices they put under the Research and

Development Section of the website menu for the benefit of users. They also have been archiving all monitoring and prediction products on the EMCC website.

After presentation, Mr. Ivanov from the WMO reminded the current stiuation of the regional network of the RCCs. He said these two virtuel climate centers are contributing to regional network. Last year Regional Association adopted a resolution on RCC Network. We are in pilot phase until the end of 2011. These two services therefore are not actual services; they are prototypes of services yet because the designation of the centers was done by CBS jointly with the Commission for Climatology. It is expected all these centers in pilot phase will reach level of designation by the end of 2011; this is our target date in our regional plan. He added these two services are very good examples for regional components of future global framework and very well structered presentations. It is good to encourage using these centers' services and thus values and usefulness could be estimated and users could provide feedback how to improve services.

Chairman stated that close cooperation between these two virtuel climate centers could be considered on how to improve services, generation of products, extension of users, etc. and this issue could be placed on ICEED10 decisions.

Mr. Čačić called for an initiative to feed relevant task teams which Netherlands, Germany, France and Russia leaded. It is important to feed them with the substances. It could be recognized and then the feedback gone in good direction.

Chairman of the ICEED10 announced that they will establish a website for ICEED and ICEED10 presentations will be there.

8.5 Drought Management Centre for SEE

Mr. Klemen Bergant presented what was actually done by the Drought Management Centre for SEE (DMCSEE) last year. The presentation was prepared by Mr. Gregor Gregorič, DMCSEE Coordinator. At the beginning, he gave short information on DMCSEE which was established by the initiative of WMO, UNCDD and SEE countries. He said, in 2007, they held a kick-off meeting and they all agreed very good and very positive goals of the Center but they never found sustainable financial solutions for the center. When they applied for hosting the Center, the Slovenian Governmment promised to fund for basic activities of the center. However, it was not for larger activities for the entire SEE region. Within TCP SEE programme which is coordinated by the EC, they found possibility to get some funds for financing some activities of the DMCSEE. In 2009, the DMCSEE was successful in the application of a TCP SEE project. Project was approved with a total budget of 2.2 M€. That is now in the process. He contunied that unfortunately, not all countries are able to take part in the project and some countries are not eligible to be included in this EC programme like Turkey. There are 9 countries and 15 partners from these 9 countries.

There are some problems on how to users of IPA funds in countries who are approaching to the EU. In the summer of 2010, all administrative issues were solved and the last partner contract to enable use of IPA funds was signed. Consequently, there is about half a year of delay in the realisation of the project.

For the TCP SEE projects regular partners meetings have to be organized. The second meeting of the DMCSEE TCP project consortium was organized in February 2010 and the

third in June 2010. Formal DMCSEE project meetings are combined with some training. First training was on climatological practices in Budapest between 1st and 5th February 2010. Course devoted to climatological homogenization and interpolation methods. They tried to learn how to interpolate point data and prepare maps of drought indices which can be exchanged and intercompared. This could potentially be used for preparation of regional climatological and drought monitoring products.

Third meeting of DMCSEE TCP project consortium and second training on irrigation scheduling systems Ljubljana were held in 7th – 11th June 2010. Participants tried to learn how to prepare meteorological data and use WinISAREG model to assess crop needs for irrigation and crop yield reduction in case of water stress.

Mr. Bergant told that DMCSEE also took part at the the BALWOIS Conference held in Ohrid between 25 and 29 May 2010. In a special DMCSEE session, 20 oral presentations were given at this conference. He mentioned there is a workshop in those days on drought risk assessment for the agricultural sector in Ljubljana that their Agency is hosting. This is part of regional programme of the DRR project. Training event organized by the WMO and the UNDP in the framework of the Regional Programme on Disaster Risk Reduction in South East Europe and financed by EC DG Enlargement. He continued his words talking on current status of the TCP project. They are finalizing report on implementation of SPI index on regional. It is expected by the end of September 2010 in preparation by their Agency. They are finalizing report on drought archive, chronology of impacts and mitigation measures for the SEE region still in progress and it is expected in October 2010, this activity is leading by the Agricultural university of Athens. They are preparing implementation of optimum irrigation scheduling software. There was a training completed in June, some guidelines and further instructions are in preparations by Soil institute “N. Pushkarev” from Sofia. He said just for information next TCP project meeting is scheduled in November.

Beside regular activities within the TCP project, some countries are not able to participate within the DRR SEE project. They tried to find solution to get involved at least some of these countries. Bosnia and Herzegovina and Turkey are eligible within the EC DG Enlargement projects but they aren't involved in the TCP project with the end side to use some part of financing to engage their experting to work of the Center. Secondment of staff to DMCSEE in the framework of WMO/DRR project, two experts - one from Bosnia and Herzegovina and one from Turkey have been nominated by their PRs to assist the DMCSEE and to prepare drought monitoring products for their countries. Both experts will start their stay in EARS headquarters in Ljubljana in last week of September and finish the stay in the middle of December 2010. He also drew participants' attention DMCSEE monthly drought bulletins available on website of the DMCSEE, www.dmcsee.org. This is product that is somehow one of the first regional product of the center. He conluded his presentation there is always place for improvement, he would really like to encourage the SEE NMHSs and their experts to take a look on the bulletin and give some feedback what would you like to improve, what to see in this bulletin, what maybe should be changed, how to help you to get some better information.

8.6 Regional Flash Flood Guidance Centre for Black Sea and Middle East Regions (FFGS)

Mr. Sayın talked about Flash Flood Guidance System (FFGS) for Black Sea and Middle East Region which is supported by WMO, TSMS, USAID, HRC and NOAA. FFGS is designed to

collaborate in the Black Sea and Middle East region countries to come together within a regional center to provide FFGS real time products.

He explained the WMO initiated this FFGS. The WMO Congress XV in 2007 approved the implementation of a Flash Flood Guidance System (FFGS) project with a global coverage, developed by Commission for Hydrology (CHy) jointly with WMO Commission for Basic System (CBS) in collaboration with the US National Weather Service, the US Hydrologic Research Centre and USAID/OFDA. On 25 February 2009 WMO signed a Memorandum of Understanding (MoU) with USAID, HRC, and NOAA on the implementation of the project. Based on the Memorandum of Understanding, WMO, HRC and USAID agreed to start preparations for the implementation of the project in the Black Sea and Middle East Regions.

He said countries to be included in a first phase of the global project were decided in the initial workshop held in Istanbul on 29-31 March 2010. These are Armenia, Azerbaijan, Georgia, Turkey, Iraq, Syria and Lebanon. Romania and Bulgaria are seen as potential candidates in a possible later phase of the project. The project will be phased over a five year period, with the bulk of the development and implementation activities occurring during the first three years. The last two years of the project will focus on training, system evaluation and validation of system outputs.

Mr. Sayın specified the objective of the project is to contribute towards reducing the vulnerability of regions around the world to hydrometeorological disasters, specifically flash floods, by developing and implementing flash flood guidance systems to strengthen regional capacity to develop timely and accurate flash flood warnings. Development and implementation of a regional flash flood guidance and early warning system in the Black Sea and Middle East Regions are planned in the project. The approach will entail development of infrastructure first on a global scale to then support the development of the regional implementation of technology, training, protocols and procedures to address the issues of mitigating the impacts of flash floods. He illustrated design concept of the FFGS.

Mr. Sayın emphasised that flash floods are very significant disasters globally. They have highest number of deaths per people affected. More than 5,000 people perish annually but there are no discernible trends for loss reduction. There are no flash flood warnings for vast populated areas of the world. Local expertise and of regional cooperation are needed. There is little in situ data in small regions. Large-river flood-warning strategies are ineffective for flash floods. Climatic changes in many regions resulted in increased intensity storms. He listed natural causes of flash floods as intense rainfall from slow moving thunderstorms or tropical systems; orographic rainfall in steep terrain and soil saturation or impervious land surfaces. He described flash flood guidance is the amount of rainfall of a given duration over a given basin that is required to generate bankfull flows at the outlet of the draining stream. He explained how FFGC will work and mentioned the FFGC have two cores: One of these is computational and the other is adjustments and warning.

He ended his presentation with a proposal. He said that Turkish Meteorological Service would like to work with ICEED members for the extension of Black Sea and Middle East Flash Flood Guiding System (FFGS) to the ICEED region. It will be very beneficial for the region.

Mr. Bergant asked that according to scheme proposal on how FFGS regional center to issue warnings, whether the responsibility to issue warnings remained on national level so that only some guidance will be given by the center to the NMHSs and then NMHS will issue the

warning or the regional center itself will issue the warnings. He explained the reason why he asked that these warnings are communicated to civil protection and rescue units and usually in countries NMHSs are responsible for this communication and they are kind of single voice to prepare warnings**.**

Mr. Sayın said that there will be two phases for warning. First, products are generated by the regional center and products will be provided to NMHSs and secondly each NMHS will issue warning depending on their governmental structure.

Mr. Čačić said that there is a lot of need for this kind of collaboration. He suggested they just could conclude more possibility of involment this center to the ICEED area in the second day of the meeting.

Chairman closed the session and invited to participants to the dinner hosted by TSMS.

DAY II: Wednesday, 22 September 2010

9. Service Delivery

9.1 Meteorological RADAR Network

In second day, meeting continued with presentation of Mr. Fırat Beştepe. He started his presentation giving definition of radar, basic principles of radar and usage areas. He mentioned weather radar systems in general. He continued talking about weather radar history of the TSMS. In 1970s and 1980s, TSMS was using analog meteorological radars which are exhibited in TSMS museum in Ankara now. However, the modern weather radar era in Turkey started in late 1990s. With the tender in 1997, Gematronik Company installed a Doppler radar in Ankara in 2000. This C-Band Doppler Radar was quite early sample of fast switch type polarimetric radars in the world. Afterwards with the Project of TEFER (Turkey Emergency Flood and Earthquake Recovery), three more C-Band Doppler Weather Radar systems were installed by Mitsubishi – Hazama Consortium in Istanbul, Zonguldak and Balikesir provinces in 2003. In 2006, TSMS decided to extend the weather radar network with new C-band Doppler radars and established a feasibility commission composed of experts from relavant disciplines in TSMS. This commision fulfilled a long-term study and presented a very comprehensive report in June 2007 forming the developement process of TSMS radar network. According to the feasibility report, in addition to existing 4 radars, 16 more C-Band Doppler Weather Radars in total are planned in order to cover all parts of the country. As a first step after feasibility study, TSMS went out to a tender for six C-band Doppler Weather Radars in 2008 and Vaisala Company got this tender. Within the scope of the contract signed between TSMS and Vaisala in December 2008, the installation of two out of six C-band Doppler Weather Radars were completed and set into operation recently. As of today, with two new Vaisala radars, the number of operational radars in the TSMS Radar Network reached to 6; three of them are dual, the other three are single polarization. He showed radar locations (operational, stationary and scheduled radars) over Turkey and talked about detailed features of radars. He illustrated the coverage analysis of 10 radars, 6 operational and 4 scheduled, in intensity mode. He said it could easily be noticed the beam blockage in mid parts of Turkey and they hoped to be able to see radar composite images of these 10 radars before the summer of 2012. He explained the steps for radar product generation from EM signal to end user product.

He talked about future plans of the TSMS that TSMS primarily aimed to cover all country with 20 in total C-Band Doppler Radars as soon as possible. Within the scope of contract signed with Vaisala in December 2008, two of six C-Band Polarimetric Doppler Weather Radars were already installed and set into operation recently. Within the scope of same contract the remaining four C-Band Doppler Radars are going to be installed until mid-2012 according to the schedule below:

Antalya (2011)	: C-Band Polarimetric Doppler
Adana (2011)	: C-Band Polarimetric Doppler
Trabzon (2012)	: C-Band Doppler
Samsun (2012)	: C-Band Doppler

Mr. Beştepe mentioned that the biggest difficulty in Turkey for weather radar operations is the complicated and irregular topography and accordingly the beam blockage. In this sense, the TSMS plans to fill the gaps in the C-Band Radar Network with short range X-Band Radars. He finished his presentation showing some sample radar images.

Mr. Čačić thanked the speaker for comprehensive presentation on weather radars. He posed following questions:

1. Were the TSMS driving these radars from one center or each part of radar they had staff for doing this?
2. What were the TSMS's plans for X band radars to fill the gaps?

Mr. Beştepe replied that they don't have any technical people at radar sites. They completely and fully operate their radars from Ankara, the steam room of their system is Ankara. They could easily access all the system remotely; they could starts tasks and change the parameters of tasks. They are controlling radars from Ankara, one center. As for the answer of second question, he said it is not determined yet to use X band radars. They are considering that option. They have been searching some solutions for the beam blockage. 20 radars may not be enough to cover all parts of Turkey. C band may not be suitable to put every point of Turkey. They may need to put some short range radars and X band radars can be a solution for this problem. However, before X band radar installation, a feasibility study is needed. After that, they could think about extending their radar network. Lastly, he said X band radars are quite good option for gap filling.

Mr. Bergant adressed Mr. Bestepe that he mentioned some of newer radars have dual polarization and asked how they use information from these radars' measurements and whether they have operational products or they are just experimental. Mr. Beştepe said that main usage of dual polarization is hydrometeorological classification. It is quite important distinguish whether it is rain and hail. By using data of single polarization it is not possible.

Ms. Richter told him that he mentioned they planned 20 radars and currently they have 2 polarimetric radars. She asked how many else are supposed to be polarimetric. Mr. Beştepe explained that they recently scheduled 6 radars. Two of them are open now and four of them will be opened. Two of four will be dual and the other two will be single. They didn't decide on other 14 radars. When they go out for a tender they will do more comprehensive study about types and locations of radars. Location may change. They can't install the radar at the

location they choosed. They need permission from military and some communication authorities.

Mr. Čačić asked whether they have any problem in using frequency. Mr. Beştepe told him they have small problems time to time but they fix.

9.2 Regional LAM Models

Ms. Meral Demirtaş presented TSMS activities in terms of regional LAM models. Her presentation outline is international memberships on numerical weather prediction, model used at the TSMS, adding value to model output, model applications and computer infrastructure. She briefly mentioned the TSMS have been the charter member of the ECMWF since 1975 and consortia partner of ALADIN since 2008. She talked about which purposes they are using the models. For medium and long forecasting they use ECMWF based systems: ECMWF Global Model IFS output for ten-day forecasts, ECMWF deterministic model EPS gives them some probabilistics, some extreme forecasts and indications. They also use ECMWF seasonal forecasts. For short range forecasting, they use currently ALORO-based version of ALADIN. Since 2004 they have been run MM5 and they have some tasks running on MM5 and some customers addicted to it. They are also exploiting WRF ARW. Since Turkey are surrounded by seas on three sides, they have to do something on wave forecasting too. In addition to what they get from the ECMWF on wave forecasting, they do some local models as well. They are also investigating another model, SWAN. It requires multi processing capabilities. She touched on lightly side effects of the ECMWF products. ECMWF side effects. Their forecasts use so much the ECMWF products since2005. It is difficult to beat them. Whatever you give them, their first proiority is always the ECMWF. You go introducing them regional model products and they are in more detail and more focusing on short forecasting they still first look at ECMWF. That is what I meant by side effects. Following this, she illustrated the domain they use and talked about ALORO operational configuration: 60 vertical levels and resolution of 4.5 km. it's non-hydrostatic, they employ digital filtering. It helps helps for the insoloties to get rid of unwanted noise. They have been running the model twice a day, 00 and 12 UTC. Forecast range is 48 hours. Initial and boundary conditions are provided from Meteo-France ARPEGE model. Second model they run is MM5. She said in a way it is good to have second model. Regional models aim to give some more detailed structure. Regional models are known more exaggerate expected precipitation. MM5 has three nested domains. She said regional models are slaves of global model, you need to be careful how you run global model. Regional models are feeded by global models. Vertical resolution of MM5 is 41 levels and forecast integration is 72 hours. Initial and boundary conditions are provided from ECMWF IFS model. Run times are 00, 06, 12 and 18 UTC.

She also gave details about their wave forecast model: METU3 which was developed by a collaboration with the METU as a part of a research project. It's been run since 2003. Currently they used ECMWF IFC 10 m. wind as initial conditions but they tested with MM5 too. Forecast range is up to 3 km. They provided some products (10 m wind speed and direction, wave height and direction, mean wave period) for marine forecast and TSMS Marine Division made use of these products, put it on the Internet side, etc. 1-D Kalman filtering is applied to ECMWF's 2m maximum and minimum temperatures from day D+1 to D+5. It has been used widely in areas such as: daily maximum minimum temperature forecasts and agricultural applications such as freezing warnings for farmers. As for verification, they verify interpolated model parameters with the corresponding observations.

She said they have some model applications: highway forecasting system (MM5-based), marine weather services (METU3-based), aviation applications (MM5 based) and various military projects (classified-restricted). She highlighted weather forecasts for highway travellers as an example to their model applications. She showed their related website. It is very user-friendly. You define travel time (day and hour) and locations and it gives you weather conditions (temperature, wind direction and speed, sky information, relative humidity, percentage probability of precipitation).

She lastly mentioned what infrastructure they use to make all these forecasting and products. She listed SGI ALTIX 4700 basic characteristics as NUMA architecture, Intel Itanium2 Tukwilla CPU, 512 cores each at 1.7 GHz, approximately 3.4 TFlops peak performance,1TB memory, Linux operating system, Intel, PGI and GNU compilers, gigabit ethernet & SAN network and CXFS file system.

After presentation, Mr. Manfred Klöppel from the ECMWF took the floor and said that he was very pleased to see how much and intensively they used the ECMWF products. He noted the application she mentioned about highway travellers and others. He asked whether they had any intention of going into direction of atmospheric composition or something like that. She said their Research Department is doing some work on those. They are collaborating with them. They tell what model products they need and NWP division provide them (currently MM5 based wind information). She said they currently are not in that specific area as a division.

Mr. Predrag Petkovic from the Serbia asked what would be the domain and special resolution for SWAN model. She said SWAN is too computationally demanding, it is not well scaled on the nodes you might be using. Their first aim is to use three domains as in their other model works. Currently they are investigating small lake areas to see whether they could proceed from there. It is still under investigation.

Last question was from Mr. Ivan Čačić. He asked how many people are working in their division. She replied those she acknowledged at the end of her presentation doing these works.

9.3 SEECOF (SEE Climate Outlook Forum)

Mr. Dimitar Ivanov from the WMO Regional Office for Europe gave the presentation on that agenda item. He began his presentation saying that the SEECOF is a very good example of regional collaboration and cooperation and important subject of regional climate outlooks. Cooperative arrengements initiated. History of RCOFs initiated in 1996 at a Meeting in Victoria Falls, Zimbabwe and gained momentum as a regional response to the major 1997–1998 El Niño event. RCOF Concept moved to other regions with different names. WMO and a number of national, regional and international organizations (e.g., NOAA, IRI, Meteo France, World Bank, European Commission, etc.) had supported the growth and expansion of the RCOFs. He said his favorite one is the Caribbean RCOF (CCOF). RCOFs' task is to use collaborative approach in response to demand climate outlooks for three and sixth month forecasts in different regions. RCOF is a response to limited resources of individual countries to produce this type of products. National and Regional capacities are different but certainly inadequate to face the task alone. The ownership of RCOFs lie largely with national and regional players. There is a need for support different regional organizations and donors. He mentioned there is a new thing about RCOFs. It is how to coorporate climate change agenda

in RCOFs. So far, RCOFs was about seasonal however it could be expanded. Regional assessments of observed and projected climate change, including the development of downscaled climate change scenario products for impact assessments, could be included in the product portfolio of RCOFs. RCOFs have been recognized to have potential contributions to the UNFCCC/SBSTA Nairobi Work Programme (NWP) on Adaptation to Climate Change. CLIPS/RCOFs have been included in the UNFCCC Compendium of Methods and Tools in support of climate adaptation. RCOFs formed a core component of WMO Action Pledge to the NWP on climate information, products and services for adaptation. He continued by summarizing history of SEECOF. From 2008, three SEECOF meetings were organized. SEECOF products of outlook itself have two parts: one is on expected temperature conditions and the other is on rainfall. Very brief statements are produced by these contributing member countries' experts based on inputs of global and regional centers. He said in the XV. Meeting of the RA VI in 2009, the Association agreed that the RA VI RCOF efforts need to be sustained in the longer term as required, and urged the Drought Management Centre for South-eastern Europe (DMCSEE), South-east European Virtual Climate Change Centre (SEEVCCC) and Members in the sub-region to continue further their support to the SEECOF process. The Association urged all Members with interests in the Polar Regions to actively contribute to the relevant efforts to identify the priority user requirements for climate information in these regions. He said new structure of subsidary bodies of WMO Hydrology and Climatology Working Group (WG-CH) established the task team of RCOFs. Task teams is leading by Dmitry Kiktev from Russian Federation.

Unlike to the first two SEECOF meetings, SEECOF3 was organized as an online event. Working was through electronic means, web sites of WMO and Met Service in Serbia and the work tool was exchanging e-mails. The problem was with funds of course. The event supported by the Chairperson of the WMO RA VI and greatly supported by the Met Service of Serbia and SEEVCC in Belgrade. The on-line collaboration conducted three steps with target date for preparing of the consensus statement is 28 May 2010:

Step 1 - For the first time, qualitative verification based on input from members. It was on the SEECOF-2 Winter forecast (December 2009 – February 2010).

Step 2 - assessment of the current state of the climate including large-scale climate patterns worldwide and assessments of its likely evolution in the course of the next months.

Step 3 - building the consensus outlook for the Summer 2010

There was excellent moderation by the Co-chair of WG-CH, SEEVCCC leading experts, resource persons from Meteo-France and Roshydromet. However, there was no training session and limited interaction with the users.

For the future, he said they are already planning the SEECOF4. It will be a quite long period, 8 days. It is tentatively scheduled for 23 – 30 November 2010 and will be hosted in Belgrade by RHMS Serbia. There will be a strong capacity-building component, WG-CH were planning a very intensive 5-day training for climate experts. Very good interaction with users, outreach. They manage to use funds of DRR/SEE project. Since the period of project implementation is extended, there will be some funds available for this event. They are expecting very active participitation from all member countries. He also added that there is a moving from seasonal forecast towards a future consensus on regional climate change over SEE. Individual results vary but there are some apperant common signals warming like

increase in the frequency of extreme climate events and drier climate in summer. His friends said there is a consideration about diversity of approaches of building these scenorios and SEECOF could play a crucial role in promoting colloborative and complementary approach. He ended his presentation giving brief information on operational strategy of SEECOF for the future. He said regular meetings of SEECOF sessions should continue, at least once a year, or two events per year, one of them can be online. A regional mechanism to coordinate SEECOF is required. More active participitation to GPCs and RCCs facilities are expected. A regional mechanism to coordinate SEECOF is needed. Consensus on the most effective timing of SEECOF and its operational products (seasonal rainfall) what are format of these products. There is a need for better involment of stakeholders (users, policymakers, and media). Whatever produced they should be communicated. WMO/RA VI guidance and support provided through the WG-CH and dedicated task team, capacity building/training events in Pre-COF sessions should contunie; the key to progress is to keep doing it not to stop at this stage.

He also would have liked to say one word about the question on establishment of SEECOF Trust Fund asked yesterday. He said this is one option for sustainable development of SEECOF. However they postponed a little bit this process. They manage to find some other funds. For the time being, starting of next year after the end of current project with the EC, they will need to think about ensuring sustainability of SEECOF process.

Mr. Čačić took the floor and asked him to explain on dealing with SEECOF-4 expenses, what are in connection with premises and all this and whether 5-day training is affordable for the funds avaliable. Mr. Ivanov said that cost of face to face session is about 35-40 thousand Euros according to experience from the previous sessions. This included support all participants apart from resource persons. These people normally come on their own. But we have consultants and lecturers. Mr. Ivanov continued that they manage roughly to secure this budget for the EC project, coming October event. This project only covers Western Balkans and Turkey, non-EU members. They also manage to cover participation of neighbouring countries. Because it is a regional event and exchange between Western Balkans and Turkey is very important for the success. For the lenghth, this is what is planned by our climate experts and we think it should be a training event for 5 days. In future there might be shorter capacity building events focusing on specific issues but this is basic general event on interpretation climate products. Because from point of view of the Met. Services, it is not easy to release somebody away from duties for such a long period. However, it is yet to finalized, if countries think it is too ambitious, we can exhange some wievs on this. We try to make it more concise but november event is a solid training event.

Mr. Bergant supported the approach of Serbian Met. Service. He said it is important to meet experts face to face but there can be a combination one online event preface and one face to face. For training there are more and more possibilities on Internet. Small Met. Services have problems to send a person for 8 days. Maybe there is a space for optimization.

Chairman announced that the first draft of decisions were already written down and he proposed to establish a group from Mr. Čačić, Mr. Ivanov, Mr. Bergant to discuss on them.He said other participants could join the group. After group work, draft decisions will be distributed to all participants for their consideration.

10. Partnership

Meeting resumed after the drafting group completed work on decisions. Chairman said it took some time to draft the first decisions and invited Mr.Dimitar Ivanov to do his presentation.

10.1 SEE Disaster Risk Reduction Project, Evaluation of the First Phase and Comments on the Second Phase

Mr. Dimitar Ivanov, Chief, WMO Regional Office for Europe said the SEE-DRR was mentioned several times during the previous prensentations and it is the most important project in the WMO sub region, VI RA. He aimed to remind the participants what is the framework. He said this is a EU DG Enlargement Multibeneficiary IPA Projects. It is run by Directorate General of Enlargement of the Commission. Beneficiaries entitled are 7 seven countries. There is an additional beneficiary, Kosovo (under UNSCR 1244/99) which is not in the UN system. The countries from Western Balkans and Turkey are eligible for the project. They are non-EU members. Among them, 3 countries already applied for the EU membership. Croatia is very close to EU membership. Probably next year, it will be a member. Other countries are potential EU members. This was the answer of the question asked why Moldova is not a Party to the DRR Project because it is not eligible country in the EC IPA Programme. Contracting inventority is EC DG Enlargement. There are 2 implementing agencies, WMO and UNDP. Overall budget of the action is approxiamately 2 million Euros. In the Commission terms, it is called action not project. This is spread 1 million for implementation of the WMO action and 1 million for the UNDP action. Time frame initially was 1 year but then it is extended to 2 year, it will end in April 2011. He showed the geographical area of the IPA. He continued shortly mentioning expected results. Mr. Ivanov told that he would like rather concentrate on overview of the progress of project in his presentation. UNDP has worked on their own activities which are mostly with Civil Protection Agencies in the participating countries while WMO, activity number 2, worked mostly with National Meteorology Offices and there are several activities which WMO and UNDP worked together. Some of you participated in coordination meetings of the Project Executive Committee which included all permanent represantatives of the participating countries and you already heard some of my complaints about this project. He said it is a extremely complex project. There are too many work packages (6 work packages) and we have too many tasks under each work package required a lot of coordination with the beneficiaries. If you looked at breakdown structures of the actitivites there are more than 150 individual items we need to report on progress to EU Commission.. First two of six work packages are implemented in WMO coordinated mostly DRR Programme. 3, 4 and 5 were coordinated by Regional Offices of the UNDP. 6 is overall management of the project. Then, he proceeded work package by work package to report participants what is the progress of implementation.

Work Package 1 (WP1) is regional and national DRR policy dialogues. It includes four subactivities. National policy dialogs, the SEECOF is included under this regional component. Multihazard early warning system training and regional approach to DRR, development regional road map. It is very important in order to receive the EC financial support for this project to stress on regional. They can only finance the IPA regional programme. This is actually multibeneficiary component of the IPA programme. He mentioned what is the status of implementation today. He explained work of international consultants hired by WMO and UNDP. They went to countries to have prepare national policy dialogs which are assessment missions. 7 country missions were conducted from April to August 2010. These consultans provided Mission reports with recommendations. National Policy Dialogues (NPDs) on DRR already started so four of those have been conducted,

NPDs of Albania, BiH, Croatia, and Kosovo (under UNSCR 1244/99). There are 4 National Policy Dialogues (respectively, Montenegro, Turkey, FYR Macedonia and Serbia) outstanding. Those are meetings of all stakeholders in disaster risk management including led by responsible ministers (this is generally Ministries of Interiors but there were some differencies among countries), sivil protection services, military, police and red cross. UNDP which is leading to UN agencies in this dialogs, National Met. Services and Hydrology services and all others concerned with national system on disaster risk management. They should be high profile events and they produce concise national statements on disaster risk management with recommendations which are presented to the Government with proposed followed actions. He suggested participants to take note that NMSs are involved in this dialogs so be prepared to provide your inputs to the final document. At the end of this exercise, 8 national reports will be ready for each country with recommendations to improve disaster risk management in each country.

Second component in this package is SEECOF and it is already discussed in detail therefore not necessarily to repeat this. Regional Training Workshop on Multi-Hazard Early Warning Systems (MHEWS), this one is first task they completed. It was held in October 2009 in Pula, Croatia, conducted together with ISDR. It was highly successful event with provided for dialog for NMHSs and sivil protection counterparts. Regarding events and deliverables on the regional approach to DRR, this is outstanding part of the project. At the end of project, we need to present a regional DRR road map to be send to all national counterparts and ministries for a regional coordinated approach towards disaster risk management. This is going to be conducted in two phases. One is to have a regional consultation meeting with all partners in the WMO. Under partners, there are the European Meteorological Infrastructure Agency, ISDR Regional Cooperation Council (RCC), DDPI and some other players. Biggest event in the project will be high level regional DRR strategy meeting. We need to schedule it but most probably it will be around March 2011. We are in coordination with the RCC in Sarajevo. We are also concerned we have our own agenda on disaster risk management. We are trying to make this regional event on ministerial level.

Moving to Work Package 2, it is entitled development of floods and droughts risk assessment capacities which have three sub activities: two workshops and a concultancy on a proposal for establishment of centralized information repository. First task is Flood Risk Assessment Training Workshop which will be done next week in Istanbul. The other event is being conducted this week in Slovenia. The task of two workshops is to provide training to those NMHSs staff which will be involved in risk assessment. This is in conjuction with the UNDP because risk assesment involves two components: one is exposure to hazards and the other is vulnerability. WMO is mostly on the side of exposure and UNDP on the side of vulnerability so this is a combined training using dedicated tools and software for this type of activity of risk assesments. For the risk assesments, NMHSs should play very important role by providing data for the assesment of weather, water and climate hazards. After the workshops, there will be a consultant hired by the WMO and another one by the UNDP to make country visits and talk what are the needs to develop capacity for risk assessments in each country. This will be presented as a concise report to be considered for face of the project.

As for the Work Package 3, it is already on the capacity building of NMHSs. It is mostly related to extend the membership to European Meteorological Institutions. Idea of this package is that some of the countries have not financial possibility to join European Meteorological Infrastructures (EMIs) because there are quite high fees for membership, particularly initial single payment for previous investments so the EC in principal encouraged

the integration to EMIs and then it was decided they can support financialy to integration EMIs. There are tree subcomponents: first is ECMWF, next is EUMETNET and the last is METEOALARM.

Membership to the ECMWF is already being discussed during these meeting that three targeted countries, Albania, BiH and FYR Macedonia are supported by the project to initiate the application process by providing guidance on how this process should be conducted. Two of the countries had successfully initiated the process; they sent letters of intent to ECMWF Council. In May this year, the Council regarded their applications very positively and allowed Directorate of ECMWF to start negotiations with these 2 countries. Albania is much behind the schedule. Albania may not be able to manage it due to time restriction of ECMWF Council Meeting. They aren't going to be able to use possibility to join two organizations within the project framework. What is outstanding is trying to involve Albania in the process and to complete application of BiH and FYR Macedonia. Hopefully, for Council Meeting in December 2010, which means that status of cooperating states to the ECMWF can be obtain these two countries early 2011. The project provides initial single payment and first annual contribution to the ECMWF.

Similar stories with EUMETNET, difference from the ECMWF, the membership to the EUMETNET is cheaper. Funds are available for same three countries plus Montenegro. Turkey also is not a member of EUMETNET. They are doing their own efforts to join EUMETNET. We expect Montenegro, BiH and FYR Macedonia are able to join to the EUMETNET through the project.

Integration to the METEOALARM system, there are five countries (Albania, BiH, Montenegro, FYROM, and Turkey) targeted in this activity. This activity is conducted with the support of the Austrian Meteorological Institute because they are the integrator of the METEOALARM so there was country visit by the MA Project coordinator of five countries to identify what is needed to join METEOEALARM. They had report and action plan for 3 countries that they are going to submitted to targeted countries in next week or two. Joining METEOALARM is not simple because you need to adjust your warning system to the METEOALARM procedures and standarts which meant identifing regions in the country for which warning are issued to establish similar criteria for the threshold values of the hazardous phenomena and introduce standart coording procedures. In order to support process WMO provided one computer for each 5 countries. These computers were arrived already to each country through the UNDP because WMO is paying for the computer and delivered by UNDP and this created some administrative difficulties. They are trying to solve the issue. He showed METEOALARM web page and they were trying to make this project area part of METEOALARM and map should extend a little bit to cover Turkey. Bulgaria colleagues are also undertaking their effort to join METEOALARM on their own because they are already implemented national level METEOALARM criteria. He reminded that METEOALARM i not a warning system, this should be clearly understood that responsibility of warning is national. METEOALARM is a awareness product. One of technical problems in expanding METEOALARM is that in addition to English, textual information should be provided in the national languages and this have some technical implications.

Mr. Ivanov continued his presentation talking about the next Work Package which is on enhancing institutional and technical capacity for data assimilation, management and information sharing. There are 4 subtasks. They did adjustment of project document and they proposed one additional subtask related to EUMETSAT. First subtask is on improving the

capacity for visualization of different products. This is with the help of the ECMWF and their METVIEW software. Countries were identified during the assesment stage of pre-project phase. Countries who don't have a modern and sophisticated visualisation software are targeted here and again Albania, BiH, Montenegro, FYROM are to receive METVIEW from the ECMWF. This was almost completed apart from actual installation of the package in this Met. Services. There was a very good training by the ECMWF which was paid from the project on the use of METVIEW and also MAGIC sofware. One pc is also coming to each of four countries. ECMWF is waiting for the new release of METVIEW. It would be much cheaper than current one. Next month, METVIEW will be ready for the countries to installation. Next subtask is dedicated to enhance capacity for maintenance and calibration of meteorological instruments again based on assessment that some countries didn't have capacity to provide systemation maintanence calibration. They completed assessment reports for five targeted countries and very good training in Regional Instrument Centre, Ljubljana in April 2010 that participants received information for this event yesterday. One specific task related to Drought Management Centre is to second of experts from SEE countries to the Regional DMC in Ljubljana. This is going to start next week after the training, one expert from BiH and one from Turkey. They will work in Ljubljana for three months. One specific task is related to Kosovo (under UNSCR 1244/99) assessment of their institutional technical capacity for supporting disaster risk management activities in Kosovo. They have difficulties in dealing with Kosovo's UN agency because they were limited by the UN Security Council Resolution 1244/99 so within the possibilities to work with Kosovo, Kosovo is not a WMO member and not recognized as a country by many other countries so what is possible to do is to have assesment mission to Piristina and also to involve Kosovo in some experts from Piristina in some of the capacity building activities which is well coordinated and is going to happen also for the coming training events. But little could be done before the political question about Kosovo is resolved.

New proposal is to enhance access to EUMETSAT data and products. This is done with EUMETSAT under so called DAWBEE project, DAWBEE data acsess to Western Balkans and Eastern Europe. EUMETSAT changed their policies to provide free access to developing countries in the region so those who can not afford to pay the fees for membership or for licence agreement something like this. Based on new policy, EUMETSAT decided to support to use EUMETSAT data in those countries who are lacking this capacity, this is done through by DAWBEE project. It involved delivery of EUMETCAST system, very simple system of receiving and processing computer and 3 sofware packages for METEOSAT data processing which is actually very capable package developed in Slovakia. WMO part of this component is to support a training event which will be last week of October in Darmstat on the use of DAWBEE stations and interpretations of METEOSAT information focused on disaster risk management support. WMO invited all project countries to nominate one expert to participate in this training. They are also discussing with EUMETSAT to send one expert on pre-installation visit to each country to help with siting and preparation of siting to installation of DAWBEE station. This will be finalized with fully operational DAWBEE stations in 4-5 countries before end of this year.

On the training work package, he mentioned the list of completed worshops except the one that on the use EUMETSAT data and products which will be held in October 2010 in Darmstadt.

As for Work Package 6 on managing, monitoring and evaluating the action, this is to explain what is the structure of management of the project. They have Executive Committee, it had

three meetings so far and one more maybe before end of project. They established the project website which provides full information about the project. they have quarterly reports issued to the EC on the status on implementation. There are two monitoring missions sent by the EC of independent monitoring agency to asses the management of project. EC is not very easy to work with and in the course of project it became clear that some adjustments to the description of project activities, expected results and the budget are needed which have been done recently. They are waiting for final approval by the EC on proposed adjustments.

Informal Conference of South East European Directors (ICEED) meeting was included in project description and it is part of coordination but unfortunately these meetings aren't financed. We mentioned them as good forum to discuss the project because all the participating countries are the part of ICEED so maybe for the future face to face we can also think of some support through project to ICEED itself.

He mentioned different illustration of capacity building events, training, workshops and the number of participants per country so far. It was not bad 65 people trained in different areas.

Number of missions to different countries, all these coordination like procurement tickets or insurance of the perdiems, all is done by WMO in some cases.

He listed some of outstanding missions. These are:

- Workshops on risk assessment – to be completed by early October 2010
- Consultancy on risk assessment – between November 2010 and February 2011
- EUMNETSAT training workshop – October 2010
- SEECOF 4 – November 2010
- Completion of application process to ECMWF (AL, BH, MA) – milestone – December 2010
- Completion of application process to EUMETNET (AL, BH, FM, MN) – milestone November 2010
- Integration to Meteoalarm (AL, BH, FM, MN, TR) – action plan expected from EMMA coordinator – milestone March 2011
- Regional meeting – SEE DRR Roadmap – in collaboration with all regional partners – UNDP, ISDR, RCC, DPPI; tentatively March 2011.

He highlighted the lessons learned and said these are very initial of lessons, there are many lessons to learn. This is the first that kind of project in the WMO with multibeneficiaries and the EC. Initial lessons are as followed:

- Significant preliminary coordination needed for successful conduct of missions – national coordination not always as expected (e.g., UNDP country visit to Serbia, act.1.1);
- Implementation period – longer than initially expected (extension already approved by EC);
- Redesign of some activities is needed in order to improve performance; EC approval expected;
- Very difficult coordination with Kosovo (UNSCR 1244/99)–Kosovo cannot participate in some of the activities as planned;
- Difficult coordination with Albania – improvement expected after special WMO mission; coordination with WB very useful;

- Implementation of some activities – strongly dependant on national Governments and external institutions like ECMWF – outcome difficult to predict;
- Need for better project management (full-time project manager) and better involvement of the coordinators of the IPA beneficiaries.

For the future, he said they needed to try to use this avenue through the EC and the IPA mechanisms and to keep the momentum and build upon results of first phase. They are trying to establish another project within the next finish period and these are proposed main focus areas:

- Risk assessment – based upon the proposals developed in phase 1
- Design of Multi-Hazard Early Warning Systems – a regionally harmonized system of national EWSs
- Continuous capacity development – institutional and technical
- Advance regional cooperation in climate change adaptation

He said they have very good chances to establish to second project or phase 2 because according to the Multibeneficiary Environment and Disaster Risk Reduction Sector Plan the first and fourth sector priorities are very much fit to what they did and that's why they already developed a proposal which will be submitted under the IPA Multibeneficiary Environment and Disaster Risk Reduction Sector Plan starting from 2011 with estimated budget 1-3 million Euros, they don't know how much of this will be allocated to their project. They already initiated the discussion with ISDR to combine efforts and have a joint project. This is very important when designing the project, the regional component should be leading one, because IPA MP can not support projects focused on national developments.

In brief, we already defined our initial draft for the new action with IPA and with same beneficiaries, with same number of regional partners and with another 18- 24 months focusing on 5 activities. The difference between phase 1 and phase 2 will be that phase 1 mostly on capacity building while phase 2 will be more on implementation disaster risk management and improvement of the disaster risk management in the Region. That's why regional risk assesment capacities will be used to make risk assesment and then we would like to have a design of regional multihazard early warning system. In simple words, just looking at map where these radars should be located to cover the region based on what we currently have as information from the countries and identify the gaps and try to fill these gap but not through this project. However, this is a design not actual radars or the infrastructure because we can't think about the infrastructure with this amount of money. Infrastructure should be supported by other mechanisms like Word Bank and other donors. This was another paralel development. It has enhancing capacity of beneficiary countries in monitoring and forecasting of hazardous weather, water and climate phenomena. For example, very extensive training programme with the possibility to provide long term training for experts from the region to the leading centers like ECMWF or others which is missing in the first part of the project. Climate change adaptation should be incorporated in the project more actively. Work with SEECOF is one of the avenues but there are some other plans. For institutional capacity, we expect DRR or early warning systems to improve national regulations related to disaster risk management in particular the role and operation of NMHSs in these efforts.

In discussion, Ms. Demirtas from TSMS mentioned local municipalities' active response in disaster management is very crucial and asked whether they make suggestions to countries to make some necessary recovery or kind of shortcuts within this framework. Mr. Ivanov said

that whole disaster management involved several stages. Final response is at local level and it is really lacking of capacity of training and lacking of awareness. This is supposed to be part of National Policy Dialogs and forums. It really needs to address the issue from the the regulator level to down to local authorities level where the response is. There are many stakeholders you needed to first make aware how to use this information and how to organise the response in terms of what local people should do in the field. Because you may have a good warning but this means disasters annualy happened so there should be some response. Their components as NMHSs are really focused on early warning in these efforts but working with the UNDP and ISDR, actually this is how to address disaster risk management. ISDR eventually will be part of this phase and they really work to the level of local authorities. This is all in the Hyogo Framework Programme. This is really very complex process and a lot to be done. Within the budget we received, we try to focus on the responsibility of NMHSs.

Mr. Čačić had the floor and said maybe to reflect to those, of course, we needed to define who the partners of NMHSs are and what the standarts of operative procedures are. That was it. He thought what he would like to propose because there are some documents already produced for national policy dialog. Concerning Croatia, we would like to share with you recommendations which are 13 of them and maybe you use them as a good template to have some, not empty paper for your dialogs. There are some efforts and content already there. It is open he would like to share with the participants what others have to fulfill this national dialogs and he said he can send them by e-mail.

Chairman thanked Mr. Čačić for his offer and proposal and said they would take into consideration it. Mr. Ivanov told that it is a good proposal and they have 3 reports finalized so set of recommendations could be sent to those who will have their national dialogs next month. They are Montenegro, Turkey, FYROM and Serbia. But the technology is that the UNDP is the leading part the National Policy Dialog. NMHS is sitting next to it. There is represantative of the WMO attending all these dialogs. Draft set of recommendations are already prepared by the UNDP taking into considerations formulated by consultant who visited each country. But you could see Crotian version as a very good example, very good draft.

Mr. Čačić took the floor again and added that there was a proposal at the beginning and they were not happy with the proposal and then they put their inputs and all their inputs were included so they need to be proactive in this not to act others to do for themselves.

Chairman emphasised that in Turkey, meteorological activities are conducted by the TSMS and hydrological activities ae conducted by the DSI and then another organization, AFAD works in disaster activities in coordination with local goverments and ministeries and with other organizations. Institutional or organizational arrengements are clearly defined in Turkey and then corporations are very close among institutions.

10.2 South East Europe Transnational Cooperation Programme (TCP SEE)

Dr. Klemen Bergant, Director of Meteorological Office at the Environmental Agency of the Republic of Slovenia gave the brief information on TCP SEE. He said Dimitar thought it would be interesting to share their experiences when trying to get some funds for DMCSEE and they found some possibilities within the TCP SEE that is financed by the EC. He is there to present what is the possibility for some of the countries may find this useful. There are several transnational cooperation programmes promoted by the EC and these programmes

used to be called INTERREG programmes, so just to give the participants a little bit of background of these INTERREG programmes transformed to the TCP. Of course, one very interested for participants, is TCP for SEE. More information can be obtained via website http://www.southeast-europe.net. There is a list of countries eligible for these funds and almost all countries from the SEE region are eligible with an exemption of Turkey. The main goal of this program actually is to develop transnational partnerships on matters of strategic importance on the regional level with an aim to improve the territorial, economic and social integration process and to contribute to cohesion, stability and competitiveness of the region. There are different priority areas on which you can address your application for the projects.There are four areas of intervention within this SEE TCP:

1. Facilitation of innovation and entrepreneurship
2. Protection and improvement of the environment. This was more important for the NMHSs.
3. Improvement of the accessibility
4. Development of transnational synergies for sustainable growth areas.

Each area is further divided into several interests. To take a short look of these areas of intervention, for priority axis 2 which is interesting for them, they can see to improve integrated water management and flood risk prevention. This is the area they can find some area for flash flood project. Another intervention area is to improve prevention of environmental risks including dangerous weather events like droughts and so on. Third area is to promote cooperation in management of natural assets and protected areas and fourth area is to promote energy and resource efficiency that they already heard some ideas for cooperation on these fields. To tell information on project calls are published on TCP-SEE web page. Until now there were 2 calls already completed, first information about 3rd call is expected this autumn (call is expected to be published next spring 2011). Each call has its own priorities. Different calls do not necessarily have same priorities or same areas of interest. For example, the second call when they were trying to get some funds for so called "Sava River Project" did not have the area of intervention related to water management and flood risk prevention among priorities. Consequently, projects containing flood risk assessment had little chance for success in this call. It might happen that the area you are interested is not really announced within the call. Therefore you need to follow carefully what is the call of EC included and what is actually important when you are trying to address these funds. First of all, the leading partner, that is not compulsory but it helps much, is from the EU member country. The project should cover most of SEE area. If there is a proposal covering one or two countries, the chance of project to get funding within this mechanism is pretty low. Project for TCP should have transnational character and should be executed within transnational approach.

Not only institutions with knowledge and expertise like Met Services or universities should be included in partnership. It is very important that project team or project partners are also from decision-making bodies and institutions, relevant for policies and strategies of regional development on-board. Project proposals included this aspect have a priority in the EC. Project call usually is devoted into two phases. First phase sometime looks very general but important. You should prepare yourself very carefully. First phase is expression of interest. You should prepare a very short description (cca. 5 pages in length) with the topics you interested, what you would like to get finances for. You need to describe proposed outputs and deliverables, partnerships and estimation of budget clearly. If you manage to go second phase then this project partner and budget are very binding. You don't have much space for changes in the second phase when you prepare detailed proposal. It is very important in case

of success in 1st phase, applicant (project lead partner) is constrained to partnership and budget stated in areas of intervention (EoI). Large deviations may be the reason for rejection during 2nd phase. Although it is not difficult to prepare EoI, lead partner should approach preparation seriously. It is recommended to have a preparatory meeting with potential project partners, get in advance their written "formal letter of intent" to participate in the project, and put a special care in preparation of budget estimation. It is an advantage if you have already formal agreement for project partners that they will corporate in this project. Budget need to be defined very clearly in the first phase, otherwise you could not have the chance to improve it in the second phase. In the second phase, you actualy need extensive description of project outcomes, budget, time plan and so on. It is only for those projects that are invited to enter 2nd phase (again – importance of good preparation and justification of EoI). Normally, less than 30% of proposals are invited to enter into 2nd phase that means you have high chance to get funding for the project. If you try to use this mechanism it is very important for the leading partner very extensive knowledge on EU project preparation and management is needed. If this is not available in the leading partner institution like in their case it is highly recommended to engage an external expert or consulting firm with experience that would help you in project preparation. Becaue the process is really demanding.

He would like to stress when you get funds project management reporting to the authorities and reimbursement procedures are extremely demanding. A big work to fulfil all these regulations and to get reimbursement for your cost from the administration point of view this is enormous work. Bad side is that it can take up to 1 year to get reimbursement (situation is different for IPA countries). It is not easy earned money. You need to put a lot of effort to get money as he said before it is almost essential that lead partner ensures help of external project management consultant already in preparatory phase if you don't have a department with good knowledge on the management EC project in your institutions. These costs for external consultans are eligible within the project so you can fund for it.

10.3 GCOS (Global Climate Observing System)

Dr. Carolin Richter presented the activities of GCOS. She said she wished to explain what is so important for her to give some messages to SEE NMHSs community. As they might noticed distributed text which telling them already what she intented to do and what she wish that they may consider as one of their draft decisions. This is actually that she would like to see her GCOS implemented on national level. She stressed that you can not do global things without kind of taking care of regions and national levels. This is concerning the "G" in the GCOS. Regarding the "O" for observation, this is actually what she is leading you back to beginning of food chain. You can not monitor, you can not outlook and you can not have climate watch without observations, we are at very beginning. So GCOS you might notice that GCOS is not only a WMO program but in fact they are multisponsored so they aren't only taking into account of observations from Met. Services which are really important and very well organized. Only operational services actually are our core and backbone of observations. WE also look into the requirements of UNEP of the International Oceanographic Commission of UNESCO they want to achieve climatic observations. We also have a non UN organisation sponsoring them which is ICSU. We have a world community of scientists behind telling us that's what we would like to see globally observed. Ms. Richter mentioned that after listening carefully the presentations yesterday she slipped another slide about what she learned from the ICEED. The participants of the ICEED10 provided her really good base for her intentions. She noted your services are taking care of long-term records from your region available, some of your services are more than hundred years old; you have historical data rescue efforts which is very important for climatic observations; you are taking care of lots of renovation of

surface networks (automatisation efforts); you are generating high-quality (calibrated) data/observations with your accreditation efforts; you are running of climatological programmes; you have a lot of national activities on climate change issues and you established climate change centers; you have domain (atmosphere, ocean, land) cross-cutting activities (marine institute, ocean for tomorrow). They all constituted very good base for a GCOS Regional Action Plan.

She explained continuous improvement and assessment cycle of the GCOS as an all domain system. She said they were only Met Services based it is reaching out to ocean to marine observations to all buoy network reaching out of terrestrial network to soil moisture and so on. Atmosphere, ocean and land we have scientists working on those issues, science panels, the participants might recognize we are working in a kind of cycle so we are starting to think about what needs to be measured. We call it "essential climate variables (ECVs) " or we can call climate monitoring variables simply. We have a plan how they wanted to observe it of implementation plan we are thinking about how to do it, we've got principles, guidelines and regional action plans that would be National Met Services' part. How do they do it by whom? It is by network owners. GCOS does't not have a network, National Met Services got networks. Met Services are providing to GCOS information on their data so the network owners are NMHSs, research organisations and every one who is measuring data. We've got data analysis centers which are generously supported by the WMO, we've got CPS lead centers. We also think about our whole system, panel of scientists and our annual meetings on what else is missing and how to improve our system so we are working closely together with WCRP and IGBP. GCOS have been contributing - sister systems that are Global Terrestrial System, the Global Ocean Observing System, WMO Future Integrated Global Observing System which isn't improved yet. We also have Former Weather Watch together with GAW. She said the part of National Met Services in the GCOS national coordination and GCOS cooperation mechanism, you might have learned from this approach that we ask regular intervene normally at EC of the next submission that would be congress. GCOS would like to have a focal point in each country usually at Met Services because Met Services are the strongest part at observations and coordinating national climate observations. GCOS have 23 countries that nominated a person. This is a resource you have to invest person who dedicates some of his/her time to coordinate climate observations in your country. They got two countries they appointed GCOS national coordinator. They are Moldova and BiH. She said they are waiting others to join. ICEED10 participant might consider this in your draft decisions. She said this is one of her main messages. Then she illustrated the GCOS CVs list that they just got updated. There are 15 in the atmospheric, 15 in the terrestrial and 15 in the oceanic domain. Some of them are satellite based and some others in-situ based. ESA Climate Change Initiative Programme launched 70 billion for projects who is taking care of right products to satellites of ECVs. This is the first time someone is really taking care of climate observations and driving long term records from GCOS shopping list. There is a lot of movement and momentum going on in GCOS right now. She said we have an implementation plan the participants can download it from GCOS website which is updated. The report is taking into account everything which required by the UNFCCC which is leading directly to Conference of Parties (COP). GCOS is reporting regularly to the COP. They were in Copenhagen last year and they will be in Cancun this year.

We don't take not only Met Service but all groups, domains and research scientists and institutions who have expertise in climate observations. She said we have progress report of GCOS cycle after five years. We are looking at whole plan and comparing what happened. Outcome within the time frame of 2004–2008, just 25% made good progress of all our

activities. 75% did not make much progress. This is due to all reasons mainly resources but sometimes the conrast achieved things in a time frame of five years might take longer that we have to investigate on it. Someone said once that GCOS is conscious for climate observations I can tell you how good you are doing climate observations. We could do better.

She said global is always difficult. What she needs is going down to regional scales. That was already decided by one of the COP ten years ago. Then GCOS staff got resources from the UNDP and fund from the GEF to set up workshops at regional level. They started with the Pasific Islands in 2000 and then went on to the Americas in 2002, to the Africa in 2006. There was one regional action plan which took place in Leipzig in 2005 for Eastern and Central Europe. 27 nations assembled and decided on how to do regional climate observations. She showed list of action plan projects. One of them is to establish EuroGCOS taking care of regional climate observing system implementation. The other project is on improving the GCOS surface and upper air observing networks in Eastern and Central Europe which was achieved quite successfully and approved. That is happened so actually since it was Met Services that are very strong having national interest to improve the networks. As a conclusion, there was one out of 12 actions decided in 2005 that we're very succesful. It was about to conduct training in the use of satellite data for climate monitoring based on the satellite application facility. The reason for this is lack of key persons in whole process. People changed, Met Services' responsibilities changed. There is always a question of how to be funded. It is not just funding the system itself and it is also funding an meeting because you sit together to meet and discuss what to to so just paying meeting of 20 people even though just resources were lacking in the past so we have to come up with strategy how to support those efforts. She said she would be honored if you insert that in your decision finding that the Directors may wish to reasses which projects are still important and to be undertaken to be completed. It might be useful to look into those existing projects because there is documentation around and to asses if they are still important after 5 years and if they need to be changed. They may even wish to add new projects. Regional action plan, they may consider it as a living document. They can delete one of the projects because they became absolute or too expensive or you wish to add even more new projects. It is very important that who would take the lead; what kind of mechanisms are needed to be installed in the regional Europe, East Europe to have those action plans followed up and monitored. This is just kind of high level desicions; all the details need further discussion. She don't expect from them to decide on details on regional action plan. She thought it is important if you find a general statement that you think it is a good idea to have climate observing system monitored and managed on regional level. She would very welcome the decision which would be taken up now at this meeting.

In discussion, Mr. Čačić commented that there are several projects existing in the past concerning experience what we have in usage of satellite data for climate monitoring. It was very useful and all countries were participated, not only participated but after three years, we actually started the process what is continuing in DWD for higher level of exploitation in satellite.We still think about this basic workshop for the new comers. This was a project of GCOS together with the WMO and EUMETSAT, they understood their role. It's quite possible at the beginning to foresee that this could be done. There are about 10-15 of these projects. He suggested in our conclusions we will speak about task force or something just like just to consider the issues to see what is affordable for us to start and to work with. Because we have strong key players. GCOS was really established key player what can help in that. He invited all participants to utilise GCOS presence there and also for the benefit of National Met. Services.

Bulgarian delegation asked for more detail about the action plan on inventory oceanographic observing needs for the Black, Adriatic, and Baltic Seas. Ms. Richter said that that was status actually. It was about of implementing operational networks in three basins coordinated by GOOS. The project is still active but somehow it's never lifted, as far as she understood, it is there is lack of coordination in this community because they are not operationally organised. This is actually the trap. The idea actually was EuroGOOS and EuroGOOS was kind of limping a little bit as well. There was a discussion in IOC in 2009. There was a EuroGOOS item that needs pushing, sometime train vagons are very heavy to push to move.

Bulgarian delegation thanked for the answer. He said meteorological services and oceanographic institutes in the Black Sea, they have long term collobaration and cooperation but sometime they are working seperately especially in the area of these activities. He thought we have to find right mechanism for collaboration between these two institusions especially in the area related to establishment of the observation of systems. It is one of the problems in our region. Ms. Richter said it is why you need a regional focal point for coordination of specific issues because it needs who is right in those regional projects. Bulgarian delegation said maybe WMO and IOC have to take leading role because the national focal point is not very easy issue. Different organizations are involved in these activities. Maybe one of possible solutions is to work closely with the JCOM. Some of the countries had national JCOM committies. JCOM brings together marine meteorologists to share and to work together. Some of countries they have already JCOM Committies in place.

Chairman expressed that we have to focus on Ms. Richter recommending taking a decision on working together with GCOS. Decision statement would be like that "ICEED members took note that GCOS monitoring and management at regional level and decided to work for closer collaboration with GCOS".

Mr. Ivanov we have an action plan with little or no progress at the end of 5 years. It is a regional plan and there are components for each country, for instance surface and upper air stations. We should ask each member of ICEED to review the action plan and to identify what are the tasks for each country and identify what is missing, what type of data or all listed actions that have been already agreed. This is the effort to review the plan and start consideration of implementation. In next ICEED meeting this could be a part of agenda that would be a progress review or additional plan how to expertise the implementation of this action plan.

Chairman suggested to change the his previous statement proposal as "ICEED members took note the importance of GCOS management at the regional level and decided that each country will review implementation GCOS action plan until the next meeting of ICEED members."

Mr. Čačić added that we have already projects in the SEE Europe. We are not starting from the beginning. We had already some arrengements and plans. For instance, data rescue, this was one of plans concerning GCOS. I would like really to review projects left behind that will not executed after Leipzig. Ms. Richter told the participants not to worry about funding. First we have to come up with new action science plan; we can find some funding mechanisms to proceed.

11 Efficient Management and Good Governance

11.1 ISO 9001:2000 Quality Management System Activities of TSMS Mr. Recep SARITAŞ presented the topic. He shortly explained the content his presentation. He said ISO (International Organization for Standardization) the world's largest developer and publisher of International Standards. ISO is a network of the national standards institutes of 163 countries, one member per country, with a Central Secretariat in Geneva, Switzerland, that coordinated the system. ISO is a non-governmental organization that forms a bridge between the public and private sectors. ISO has developed over 18000 International Standards on a variety of subjects, providing practical solutions and achieve benefits for almost every sector of economic activity and technology, and some 1100 new ISO Standards are published every year. ISO (International Organization for Standardization) is the world's largest developer and publisher of International Standards. ISO 9001:2000 revised in 2008, thereinafter refer to ISO 9001, and ISO 14001:2004, which gived the requirements for, respectively, quality management and environmental management systems, are among ISO's most well known and widely implemented standards ever. They are used worldwide by businesses and organizations large and small, in public and private sectors, by manufacturers and service providers, in all sectors of activity. He showed the table which gives the number of certificates worldwide. There are almost 1 million certificates. The growth from December 2003 to December 2007 is 48 %, and 70% of Certificates belonged to the top 10 developped countries and rapidly developing countries such as China and India. He also illustrated the table relating to the ISO 9001:2000 certification growth from end of 2003 to end of 2007 in some European countries including Turkey. According to the table, 45 percent of worldwide total is belonged to the these countries.

He mentioned the adoption of a quality management system should be a strategic decision of an organization. The design and implementation of an organization's quality management system is influenced by its organizational environment and the risks associated with that environment, its varying needs, its particular objectives, the products it provided, the processes it employed, and its size and organizational structure. The quality management system requirements specified in ISO 9001 are complementary to requirements for products. ISO 9001 specified requirements for a quality management system where an organization:

- needs to demonstrate its ability to consistently provide product that met customer and applicable legal requirements, and
- aims to enhance customer satisfaction through the effective application of the system, including processes for continual improvement of the system and the assurance of conformity to customer and applicable statutory and regulatory requirements.

ISO 9001 promotes the adoption of a process approach when developing, implementing and improving the effectiveness of a quality management system, to enhance customer satisfaction by meeting customer requirements.

He continued his presentation talking about process approach. An activity or set of activities using resources, and managed in order to enable the transformation of inputs into outputs, could be considered as a process. The application of a system of processes within an organization, together with the identification and interactions of these processes, and their management to produce the desired outcome, could be referred to as the "process approach". He explained the model of a process-based quality management system. Customers play very important role and customer requirements are the input of the process. From time to time management should measure, analyse and improvement the customers satisfaction, and provide resource needs for the continual improvement of quality management system. He

listed acqusitions by ISO 9000 standard series as effective management, efficiencies profitability, market share, assurance planning, and communication.

He talked about implementation of quality management system (QMS). He said top management had a decision in late 2004 to introduce in and to implement QMS ISO 9001 for the Organization, TSMS. TSMS had first group training on QMS in late 2004 after establishing QMS Working Group representing 6 Departments at Headquarter and 23 Regional Directorates (RDs). Then after completing documentation they had first internal audits and first management review. They had an application for getting getting QMS Certificate from the Turkish Standardization Institute (TSI), finally they got the certificate fulfilling the requirements of TS EN ISO 9001:2000 at 5 July 2007 for 3 years. They had surveillance audits by TSI auditors in June 2008 and 2009 not only at Headquarter but also at different RD's. They revised documents for adoptation of TS EN ISO 9001:2008, after completing revising documentation, internal audits and management review, they had another application to the TSI for renewal of certification in May 2010, at the end they renewed the certification for fulfilling the requirements of TS EN ISO 9001:2008 at 02 August 2010 for 3 years again.

He mentinoned the organizational scheme of QMS of TSMS. They have management represantative and quality management officers as well as representatives of 6 departments at headquarters and 23 Regional Directorates. They have almost 60 auditors for internal audits. The quality management system documentation shall include documented statements of quality policy and quality objectives, quality manual, documented procedures and records required by ISO 9001. Documents determined by organization to be necessary to ensure the effective planning, organization and control of processes. He said processes of QMS of the

TSMS could be divided into three groups:
I- Processes related to management responsibility: Strategic Planning, resource management and management review (3 processes)
II- Processes related to Product/Service realization:

- *Observation Prosesses: synoptic/climatological obs., rawinsonde,*
- *Forecasting Processes: Meteorological forecasts, numerical forecasts, TAF, Agricultural Froze Forecasts,*
- *Meeting and presentation of requirements of customers related to Data/Product/Service (9 processes)*

III- Supporting Processes: Internal audit, design and development, process related to customer complaint, education, repairment and maintenance of equipment etc. (7 processes).

He said they have quality policy, quality objectives, quality manual at the first level of the TSMS. They have one quality manual, one organizational manual, 20 documented procedures which six of them are essential for the certificates, those are one procedure for controlling documents, controlling the records, one is for internal audit, one is nonconfirmative products and one is corrective and preventive actions and they have 19 procedures and so on. Mr. Sarıtaş mentioned the training status of TSMS. Beside the training activities they also have workshops for quality management improvements since 1980. They were together with the representatives of 6 departments in the headquarter and represantatives of 23 regional directorates. During these workshops they shared their experiences and problems and also discussed the improvement opportunities for the issued applications of the system.

He said internal audits have been performed in accordance with documented prosedure, 2 internal audits in 2007 and 2008, 1 internal audits in 2009 and 1 internal audits performed in 2010. In 2010, another internat audits will be performed. Audits are performed at Headquarter, all international/national airport meteorological services, all RD's Headquarters as well as rawinsonde stations and at least 2 synoptical/climatological stations of each Regional Directorate. The findings of Internal Audits are important input of Management Review Meetings.

Top management shall review the organization's quality management system, at planned intervals, to ensure its continuing suitability, adequacy and effectiveness. This review shall include assessing opportunities for improvement and the need for changes to the quality management system, Top Management Review (MR) meetings have been arranged twice a year in accordance with a documented prosedure, Prosedure of Management Review. QMS Performance Report has been prepared by QMS Office and sent to members of Top Management at least two weeks before than that meeting. The Performance Report for the management review includes information on results of audits (internal and external), customer feedback, process performance and product conformity, status of preventive and corrective actions, follow-up actions from previous management reviews, changes that could affect the quality management system, and recommendations for improvement. The output from the management review includes any decisions and actions related to improvement of the effectiveness of the quality management system and its processes, improvement of product related to customer requirements, and resource needs. The records of the management review meetings, including its outputs, are presented in electronic media for all Staff as well as Top Management members.

Mr. Sarıtaş said that they have 2 questionnaires for measurement of customer and staff satisfaction in their web site. In the results of the questionnaires, 49 percent of the participants replied the question of "from where you got meteorological forecasts?" that they got them from the TSMS and second largest group was from the TV. As for the question of how you got meteorological products/services, 54 percent of the participant answered that they got from the TSMS website." According to the results of customer satisfaction arranged on Internet in 2009 and 2010, TSMS reached 77 percent grade of satisfaction and they were planning to reach 80 or 85 percent in the coming two years. He lastly highlighted TSMS future plans on QMS: They will simplify the QMS, reduce number of processes, revise prosedures/working instructions, have Quality Manager directly under the top management (directly connected to General Director/Deputy General Director), reduce internal audits expenses by performing effective audits by well-trained/skillful auditors, performing audits once per two year and audits better focused on core questions in the checklist. Implementing other management systems in the frame of QMS, an environmental management system (ISO 14001) and a work safety and health management system (ISO 18001) by 2015 are other future plans of the TSMS.

Chairman asked whether there are any questions. Ms. Carolin Richter complimented TSMS on the QMS. She said she has to mention that she is used to be the quality manager of the German Met. Service for 2 years so she knew how diffucult it is to install QM procedures and that the staff very much not willing to take on some complimentary due to this efforts. She asked whether they trained Met Services in their region on QM issues, whether they went outside to Turkey went to Bulgaria or Macedonia, whether they could give their knowledge and expertise to other members of this group there. Mr. Sarıtaş replied that they couldn't do it so far but he hoped it could be in future if there are requests from countries.

Chairman suggested that one of the decisions of this meeting will be regional cooperation and collobaration areas in the region so which is quality management is very important.

Mr. Ivan Čačić said that it is important to say the services are going to this not to do what not to 80 processes they suggested to have only one and also they consulted our colleagues from Slovenia and got a lot very useful information and to make it as simple as it can and then motivation should not be to get certificated motivation should be to work better. What he learned from the colleagues that we are doing same but in a more organizational way.

Mr. Ivanov associated himself to congratulations the TSMS for developing and implementing QMS which was extremely important. He used to work for ICAO before the WMO in the aviation world on implementation of QMS for Met Service. It was mandatory for ICAO so there was no way out. There was 5 years between ICAO and WMO whether the WMO accepted same approach they would encourage WMO members to implement QMS, there had been some resistence in the WMO mostly due to expected costs of the implementation of QMS and hiring consultant, developing all the documentation but as Mr. Ivan Čačić said its actual effects are quite visible and extremely useful it was not only usefullness but service delivery concept in a competitive environment private service providers if you aren't QMS certified in some stage this will be your weak point to complete out other service providers so it is very good identified in the region at least a couple serviced that introduced QMS successfully and they could share the experiences with the others because if you start doing it without learning from others you could find the difficult way of doing it. This is good you already identified this as a priority. For the group he would like you to recommend coordinate actions with the the working group on service delivery, partnership. They also are going to address QMS on the AR VI as a whole. He thought in the preparation of documents in next congress there is already some upgrade of WMO position and requirements with regard to TSMS. For your group it is very timely to address one of the priorities.

Chairman stressed that cooperation in the field of QMS are considered in the draft decisions and will be brought together with other decisions to ICEED countries to help them and to work together if you have to upgrade or improve their system if they do not have how to establish a quality management system.

10.4 Initiatives for Common Projects, Data and Products Exchange, Bilateral Agreements

Chairman said that they were going to proceed with the discussions about the project proposals. Each country expressed her opinion in general or specific terms. Delegation from Moldova took the floor first. She wanted to say as they are just a developing country and just starting improvement of network of observations and also the automatisation of hyrometeorological stations and radar installments. They are very open to cooperation and experience sharing in these fields. They have cooperation agreement with Romania and they wish MoU with other countries in the ICEED region. They are planning to start seasonal forecasts on operational base. She proposed online sessions or face to face workshops on seasonal forecasts as well as projects on climate monitoring and seasonal forecasts.

FYROM delegation said they are open to cooperation and collaboration with the SEE countries. For example they are interested in the projects specifically on QMS since FYROM put in law QMS for hydrometeorological operations and their experience is very limited. They

already discussed the issue with Slovenia and Crotia and would like to talk to Turkey as well. He mentioned other projects with respect to the capacity building, WMO project with the EC DG Enlargement Project is a good opportunity. In respect to policy in Macedonia, hydrometeorological services are in very critical stiuation because they need more information and expertice concerning policy, collaboration with different agencies especially in disaster risk reduction programmes. For bilateral agreement, they need to be finalized their former initiative with the TSMS. He said the participants can discuss some critical issues for the future cooperation, MoUs. They need to finalize MoU with Turkey, Slovenia and Romania. He said they are in good direction in the ECMWF process but they need some assistance from the Mr. Bergant who is the Vice President of the EUMETNET and Mr. Čačić, President of the WMO RA VI, in order to clarify the modality of cooperation agreement with the EUMETNET with respect to Macedonia.

A member of Serbian delegation asked for the floor and talked about the long range forecasting (LRF) that Moldova mentioned. He said it is already coordinated by the functions of SEE VCC and they are capable to provide support regarding the LRF. This is also coordinated by the SEECOF process. They support signing any MoU on exchanging knowledge and data to improve products.

Crotian delegation said they seek how to utilise WMO new information system which was very demanding at the beginning but it is time to do that. There was not mentioned here but it is needed how to utilise automatisation, how to make this ratio of between automatisation and decrease of technicians at met stations not to harm meteorological measurements. It is important in organizational matters of each NMHSs because they will shrink. It is important to discuss what tolerence they admit or not in this process. For instance clouds, in the automatisation there are no clouds may be they are too expensive instruments (satellites are complementory regarding to this). As the Director General it is very important to have vision how him/her service will look for 5-10 years regarding to this process. He would also like to utilise neigbour collaboration and exchange data and products. They have radar data how to make composit pictures. They are interested in automated calibration system for radar data. He suggested as a conlusion of the ICEED10 to define a task force that will work out priorities of the region that each of them can see their interests and benefits.

Chairman said that radar products using early warning system will be one of decisions so that withing these tasks they can also touch upon calibration of the radars, radar products. It will be beneficial for the region.

Mr. Čačić took the floor again and said radar systems are very expensive so they are interested in doing it in proper way. He meant that the entire configuration can have some general concensus in the subregion. He reminded to each of participants that during the SEE project feasibility study of organization of the services it has been clearly stated if their planning and implementation would be in a coordinated way of the countries, savings of getting equipment could be up to 40 percent. When they got new radar system it is important to see the neighbourhood to optimize in double utilization for the country and for the abroad.

Bulgarian delegation said they have to focus on national observing systems next year. Especially for his country, calibration of meteorological equipment is a problem. WMO Regional Intrument Center in Slovenia and the TSMS have very good experience on this issue, we could benefit from their experiences, knowledge, expertise with bilateral cooperation. They need to discuss how to use their national capabilities in order to develop

regional component of WMO Integrated Global Observing Systems. They need to collobarote in this direction. Met Radar system is important and Bulgaria has a very good example and also Turkey. It is another area of cooperation. The participation of the NMHSs in the projects funded by the EC is another important issue. According to his observation, Oceanographic Institutes are more active in participating in the EU projects. NMHSs' participation is one of the gaps. He suggested the WMO to take the lead and help them on active participation project preparation of EU projects.

Mr. Bergant wished to add some short information regarding EC projects issue that there is a special person responsible for this communication named Christoph Jacob paid through WMO, EUMETNET and ECMWF and that means EUMETNET members have a contact person on the level of WMO and EUMETNET to effect or lobby on the level of EC to get more information and get the ideas of their projects to be included in the calls of EC.

Chairman said EC projects particular FP projects are very important and have very good funds but they need to cooperate with universities and national scientific and technical authorities, it is called TUBITAK in Turkey. This meeting will direct them in this way to have more cooperation with universities and research institutes in nothin.

Mr. Čačić shared that Bulgaria is very skilful and active in NATO projects and they can learn a lot from their experiences.

Serbian delegation highlighted that the EC project of Romania was announced as the best estimated EU project within TCP and that they could give some expertise from their experince. He also talked about WMO Voluntary Cooperation Programme and said that they have a new announcement for all countries.

Delegation from Bosnia and Herzegovina said that the EC DRR project gave them the opportunity to become members of the EUMETNET and ECMWF. This was a biggest jump for their Service. Looking for internal cooperation, they have agreement almost with everybody but financial side is always a problem. They could have MoU or cooperation agreement but when they need to send somebody to somewhere or opposite everything stops. He thought only chance is to be part of a model project. He said man power is the biggest challenge. They can not employ people because of restriction which is the out of power.

Delegation from Montenegro supported BiH. She said thanks to WMO DG Enlargement Project they improved their technical capacity with this satellite station from EUMETSAT and also using Metview and Meteoalarm for the first time in their Institute. She underlined that they are open for cooperation. They are interested in exchanging radar data since they have no radars. They will sign new MoUs with Slovenia and Turkey.

The Serbian delegation said that they had already mentioned the core elements of what needed to be said. Regarding to radar issue, there is a project in Serbia financed by Ministry of Agriculture and Forestry. Within the project, they will install radar in the central part of Serbia by 2011.The radar will cover most of Serbia. The member of delagation stressed they needed to cooperate in making decisions on how to cover the gaps such as the one Mr. Čačić mentioned. He also offered help to other SEE countries as regards migration of TDCF.

After Serbia, Slovenian delegation took the floor and said they very much welcome the initiative for MoUs. They started to discuss with Montenegro as a Drought Management Centre and also VCCC for SEE. They have very concrete operational cooperation with Croatia. Sometime MoU is only a paper that really some concretization of the cooperation is needed and these concrete things sometime need money but sometime not much needed to make further steps. Another thing he mentioned that they will continue to offer their support and help through Drought Management Centre SEE and through WMO Regional Instrument Centre they hosted. They are very interested in different projects. The only problem is that they have very limited research capacity. They are doing their research and development through cooperation with universities and to get approval from their ministries to get involved some international projects, these projects have to be a very operational node they could get approval only if the results of project have either operational tools or if it is pure research they could not get support from the Ministry. By the opinion of their ministry, research should be done in universities. As a Vice Chairman of the EUMETNET, he offered his personel help to the members to assist in terms of approaching EUMETNET. As a Chairman of ALADIN General Assembly, he offered help those interested in joining the ALADIN Consortium.

Chairman said one of the proposals in the decisions was to establish a website for the ICEED countries. They could put groups for example NWP or radars so that people could exchange ideas directly one person to another.

Bulgarian delegation proposed to include in the decisions to put information about EUMETNET, Meteoalarm activities, etc. and some documents.

Romanian delegation agreed his colleagues to strenghten the cooperation and they are open to cooperation. Next year, they will need to upgrade their agreement with Moldova. He is interested in cooperation for the Black Sea especially the issue of wind potential because to be more involved in and it is real business in Romania. They have a very good school in meteorology organizing different training together with various international organizations. He said as ICEED countries they have some common problems like the economic crisis, they have to manage what they have because human resources and material infrastructure quite reduced in that period. Investment also will be reduced. He would like to discuss cooperation with private sector because many private companies ask for data and to provide forecasts to countries.

Mr. Čačić wanted to plug in what Romania said on private sector. As participants of the ICEED10, we talked much about capacity building, partnership and management view but what we did not do what you mentioned. It is private sector. Before that data policy was a hot topic for all over the world. It would be good to know at least who was doing what in the way of data policy. It differentiates between Services. It would be good to have a inventory on overview of this how each Service managing its activities to the public what is open what is not open, just to have this scope. Really this fragile relation with private sector how to utilise this and also data policy relation to the public it is related with legislation and how to maybe also I would like if you could have one place this laws of the ICEED countries to get experience with this and to upgrade our loss for better contents.

Chairman proposed that a questionarie could be sent ICEED countries to be filled it up for which kind of data is available for international projects.

Mr. Čačić mentioned that they had concensus in EUMETNET and Western Europe so called Oslo Declaration it would be good if we can send this declaration to think about. You can not unify because practices are very different but you could get more knowledge about that. He said Serbia, Slovenia and Macedonia are suffering from the activity of hail suppression . I will not take note Serbia he is doing something but for Crotia 1/3 of budget and 1/3 of the place. It is not negligible at all. We are forced our resources and our substances to something what we can utilise in better activities human resources, financial issues and capacity building.

Lastly Turkish delegation shared their views with the participants. He said TSMS are open to colloborate and cooperate with the ICEED countries. Some of the project topics would be collaboration in climate centers, radar products application, QMS, EUMETSAT and ECMWF products using in flood warning and climate applications. Flash flood is very important especially in our areas and ICEED countries have small area and if a country takes a flash it immediately push to another country. Problem is pushing to another countries early warning. For that reason we propose the extension of FFGC project to cover ICEED countries. ICEED countries shall contact with WMO to extent Mediterranean and Black Sea FFGS project with the ICEED countries. In my opinion, ICEED members should establish a Steering Committee for developing specific projects for ICEED members' needs in order to use EU or other international funds. Committee should make project recommendations in climate forecasting, flash flood forecasting and early warning. ICEED Directors should suggest different projects from Committee's proposals; prepare full projects and invite international organizations to participate like EUMETSAT, ECMWF, EUMETNET, etc. IPA and others like EU FPs, USAID,UNDP would be some of financial organizations. He said this was technical point and asked to Mr. Bergant who is Vice Chairman of the EUMETNET to show them the way how the TSMS could be a member of the EUMETNET and how they use EUMETNET projects.

Mr. Bergant said that the membership of Turkey is already discussed between the Executive Director of EUMETNET and the Director General of TSMS and there is some progress. There are two options actually: either you joined EUMETNET as a full member in which case you need to sign the economic interesting group agreement because since September 2009 EUMETNET established economic interesting grouping under Belgium law which gave legal entity to EUMETNET. Another option is to simply cooperate with one of the EUMETNET programmes. For example many countries would like to cooperate only with METEOALARM program. In this case, procedure is much more simple because Met Services sign only cooperation agreement with EUMETNET EIG and then you can simply cooperate in this program. If you join EUMETNET as a member you need to participate core programs, like Secretariat and European Composite Observing System, which of course bring some additional cost but also some benefits. As a member, you can influence decisions of EUMETNET Assembly of Members. He said he will prepare some paper document on how to approach EUMETNET with these two matters. He offered some additional help to Turkey joining the EUMETNET.

12 Discussion on Challenges and Opportunities in Front of ICEED Community

Chairman listed the topics to consider under this agenda item and invited participants to express their comment on World Meteorological Congress, Increasing Role of Private Sector and Possibilities for Cooperation, and Other Challenges and Opportunities.

Mr. Čačić said he thought a lot what common interest do we have with the private sector and where we can work together. I really found a magic good situation that what disturbs private

sector. They are really professionals but non-professionals on some matters.They are making noise in Internet and making headaches to all of us. For Croatia, they are very interested to work together with National Met Service to approach this noise as much as they can and then they can see NMHS as a partner. They told us, I was very surprised, we want to be a partner because we want to have credibility as your partner, as an advantage to the others. This is first thing. Secondly most probably we need not to fill all areas of user needs. what is not very essential for us what is not very specific for some parts, we can just give this part of market to the private sector. Of course, I am speaking very generally, I cannot implement of each country. I told them we will give you data for free but after you have to put logo on it. This is one of condition and they agreed. They are not willing to put everything on Internet from National Met Service because we are kicking of their profits but this is some kind negotiation between in sight of the country. All these leaded my country to tailor better legislation, to tailor what it is issue of single voice and what is core activitiy of NMHS.

Mr. Bergant fully supported the Chairman's idea on sending a questionary to ICEED countries on data policy. He said if we have tour-de- table to discuss data policy in our countries it will take a lot of time and some information will be forgetten. This questionary is a good idea. He added what Mr. Čačić said for assuring the quality of the meteorological services for private sector issue, when we prepared law for meteorological activities in 2006 we wanted to put inside kind of licence thing for the private sector who is dealing meteorological services so that they would need a license which would assure some quality of meteorological service but of course European Union is promoting free market. Our goverment kicked out this proposal from our law and their argument was that the market show who is the best and there is no need for this license thing. In conclusion, we did not manage to do anything in this regard formally.

13 Discussion on Expectations and Plans of ICEED Members Related to Membership in the Three EMI Pillars and to Other Consortia

Chairman introduced next item in the agenda on membership in the three EMI pillars and to other consortia. Mr. Čačić gave information particulary who are ...You have to understand that EUMETNET as a place for the politics NMHSs and Europeans builts. Everything is down...Politically and strategically it is extremely important to share that and to be present. Looking to the expenses to the EUMETNET it is far below of other bodies, ECMWF or EUMETSAT. Presence in this body really is sharing capacities, capacity building and also management of the services.
Mr. Bergant added a small comment on what Mr. Čačić said. EUMETNET is about doing things together and it is about sharing things. If you join EUMETNET it doesn't mean that you buy some services and that means you need to do your part to contribute to the joint activities which of course bring you benefits because then you are really doing this high level.

14 Requests for New ICEED "Membership" and Observers

Chairman proceeded to agenda item of requests for new ICEED "membership" and observers. There was not any request for it.

15 Outcomes of Meeting

Participants continued discussion on outcomes of meeting which means draft decisions. They considered draft decisions one by one. Draft decisions were adopted with minor changes.

16 Any Other Business

17 Date and Place for the Next ICEED Meeting

After some discussion, it was decided that Moldova and FYROM will talk eachother and decide who will host next ICEED meeting and when.

Chairman thanked all the participants for their contributions at the meeting and closed the ICEED10 expressing wishes for continued cooperation and implementing the adopted decisions.