**15th SESSION OF THE INFORMAL CONFERENCE OF SOUTH-EAST EUROPEAN NMHSs DIRECTORS (ICSEED-15)**

**ZAGREB, CROATIA**

**6-7 October 2016**

**Hosted by** **Meteorological and Hydrological Service of CROATIA**

**DAY 1 / 6 October 2016**

Registration of participants

(List of Participants ICSEED15, Appendix 1)

Participants from 18 South-East European (SEE) and Near East countries’ National Meteorological and Hydrological Services (NMHSs)were present at the meeting: Bosnia and Herzegovina (*FHMZ Federation of B&H* and *RHMZ Republic of Srpska*), Bulgaria, Croatia, Cyprus, Former Yugoslav Republic of Macedonia, Greece, Hungary, Israel, Jordan, Kosovo (UNSCR 1244), Moldova, Montenegro, Romania, Serbia, Slovenia, Turkey and Ukraine (as observer).

World Meteorological Organization (WMO) was represented by Mr. Milan Dacić, (Chief of Regional Office for Europe), Alasdair Hainsworth (Chief of Disaster Risk Reduction Services Division), Xu Tang (Director, Weather and Disaster Risk Reduction Service), Paul Pilon (Chief of Hydrological Forecasting and Water Resources Division), and Ivan Čačić (President of RA VI). Ms. Sari Lappi, project coordinator of EC-funded IPA project “Building resilience to disasters in Western Balkans and Turkey”, also took part in the meeting. The Croatian NMHS, organizer of ICSEED15, appreciates the financial support from this project (Appendix I).

Opening of the session

The session started at 10:00 on 6-th October 2016 when Florinela Georgescu, Executive Director of the National Meteorological Administration of Romania and the chair of ICSEED since last Session, opened the meeting. Dr. Nataša Strelec Mahović, Director of the Meteorological and Hydrological Service of Croatia, welcomed the participants and also Mr. Ivan Čačić, President of Regional Association VI WMO, Mr. Xu Tang on behalf of the WMO Secretariat and Mr. Milan Dacić as Representative of WMO Office for Europe.

Approval of the Agenda and the Minutes from the ICSEED-14

The proposed Agenda of the 15-th ICSEED Session was accepted without any objections (Appendix II) as well as Minutes from the ICSEED-14.

Appointment of the new ICSEED chair

According to tradition, director of hosting NMHS Dr. Nataša Strelec Mahović has been appointed as a new chair of the ICSEED and continued to chair the Session.

Presentations of the invited lecturers

Mr. Ivan Čačić, in his report on RA VI (Europe): “**RA VI Achievements and Future Plans**”, highlighted some of major challenges visible in Europe today as are lack of financial and staff resources, difficulties of NMHSs to maintain and sustain basic functions, increasing role of the private sector in service delivery, increasing requirements for compliance with data policies, technological and institutional gaps between the developed and developing NMHSs, and also how much coping with issues related to the economic conditions affects the NMHSs .

Some priorities in front of NMHSs are implementation of WIGOS and WIS, enhancement of Services as are PWS, DRR / EWS, aviation, climate and related services and, as very important, enhancement of regional/subregional cooperation and partnership (for example between EMI-*European Meteorological Infrastructure* and RA VI MI) but also enhancement of interregional cooperation and partnership.

Mr. Čačić also explained the decision of the 4th RA VI MG Meeting, (Lisbon, Portugal, 21 – 22 April 2016) that RA VI Regional WIGOS Centers (RWC) should be established as a network of *contributing* NMHSs. A *proof of concept* should be established as a phase in setting-up of RWC-Network. The proposed RWC for the Adriatic Sea area, established as a virtual centre, will complement existing WIS DCPC for the Adriatic Sea area and Croatia will be leading in this regard.

EC WG DRR (EC Working Group on Disaster Risk Reduction) recommends developing new projects such as a South-East European Multi-Hazard Early Warning Advisory System project with a perspective to collaborate with other regional projects.

It is envisaged that - as more Members undertake the implementation of the Strategy for Service Delivery - the experience gained will further refine and guide the work of the Secretariat in assisting other Members improving their levels of service delivery to their stakeholders.

In harmonization of service quality on pan-European level and enhancement of interregional cooperation and partnership (*in particular with RA I and RA II*) special effort has been performed towards establishment of WMO Eurasian Office in Minsk, Belarus (*following Cg-17 Decision*).

There is also high potential for extension of EMI towards RA VI Meteorological Infrastructure, if possible starting with some EUMETNET programmes (*e.g. Opera, Ema*).

A strong response to technological and institutional gaps between the developed and developing NMHSs in RA VI would lead towards harmonized services.

Dr. Paul Pilon, Chief of Hydrological Forecasting & Water Resources Division in WMO in his presentation talked about **„Integrated Flood Management (IFM): the experience of the Associated Programme on Flood Management (APFM)”**

Flood impact records show that the number of flood fatalities is gradually decreasing thanks to, among others, better early warning. Flood damages, however, appear to be increasing because of insufficient attention to prevention, economic growth and lack of flood sensitive land-use planning (lot of goods and infrastructure are piled on small parts of areas).

WMO has great interest in IFM because National Hydrological Services are responsible for providing services in support of national needs and are actively involved in the planning, development and management of water resources projects. That is why WMO has a mandate to advocate for the widespread adoption of IFM at the basin, national and international levels (Resolution 20 (Cg-XV)), and assist its members in flood management policy, strategy development and capacity building. WMO Hydrology Commission decided to assist setting up of a HelpDesk for Integrated Flood Management for the benefit of Members.

Flood Management is water management that is strongly linked to land management and people. That is why Integrated Flood Management refers to the integration of land and water management in a river basin. That means that IFM is interdisciplinary, flexible and participatory and gathers a great number of stakeholders as are: developers, drainage authorities, water/sewerage service providers, insurers, emergency services, local authorities, strategic industries, dam/reservoir operators, irrigators, farmers/forestry and environmental regulators. Other multidisciplinary aspects of flood management are: environmental, economic, social, legal and institutional aspects.

**Associated Programme on Flood Management** is the programme based on extrabudgetary resources, mainly coming from donors such as (in the past) the Governments of the Netherlands, Japan, Germany and Italy, and currently Switzerland (through FOEN) and USAID. Its mission is to support members/countries in implementing IFM.

WMO’s activities support NHSs (including NMHSs) in their functions, as specified in the WMO Technical Regulations, in particular:

* Collecting, transmitting, processing, archiving and maintaining quality control of data and the data collection process
* Making data and products accessible to users, when, where and in the form they require (e.g. hydrological forecasts and warnings)
* Assembling water-related data and hydrological information and ensuring their accessibility for the use of non-governmental, international and private sector organizations
* Coordinating with agencies which are responsible for using water-related data and hydrological information
* Informing potential users of available information and resources, and assisting them to make the best use of it
* Participating in the planning, development and management of water resources projects

The process of transferring flood risk mitigation from theory to practice,includes development ofwarnings, civil defense planning, raising awareness and education to risk structural measures (and maintenance), land use planning, basin management, flood forecasting and flood mapping.

It is essential to promote IFM to prevent the disaster from repeating itself. It could be achieved by reducing risk exposure (flood risk management), building back better and developing and enhancing end-to-end early warning systems.

APFM can help through HelpDesk that gives advices on flood management through a training, capacity building, advocacy material, building a network of institutions supporting a multi-disciplinary approach, giving hands on assistance to Members, preparing project proposals and in implementing flood risk management projects. The HelpDesk can be reached on web address: <http://www.apfm.info>

The activities of the APFM can be grouped in three main categories:

*- Compilation of guidance material*publications, manuals and tools on specific aspects of flood management (all available for download from our websites)

*- Capacity building*implementing advocacy or specific trainings on IFM at the national or regional level.

*- Strategic advice through the HelpDesk on IFM*, a user-friendly platform where users can access relevant information and request our assistance in finding the right resources and know-how, or to get capacity building training workshops, or to get assistance in developing flood management strategies at the national level. Regional pilot projects have been undertaken in:South Asia (community-based approaches), Africa (flood management strategies), Central and Eastern Europe (flash floods).

In the discussion that fallowed it was repeated that NMSs should be strong link to water communities. It is great benefit that most of SEE countries traditionally have hydrological and meteorological services joined and working together in the same institute.

It was also mentioned that in the hydroplants and reservoirs, water management is very important feature, and it is also extremely important to find balance between power production and flood reduction. However, power plants do not have to necessarily fallow national policies but commercial ones.

It is also important to consider flood management as a political question because flood can and usually does cause international harm.

After discussion Mr. Alasdair Hainsworth, Chief of Disaster Risk Reduction Division in WMO started his presentation **“Implementation of Cg-17 Resolution 9 – Links to international agreements”**. Mr. Hainsworth first gave a wider picture on constituting this resolution.

Sendai Framework for Disaster Risk Reduction was signed by governments and is addressed to governments but yeti it is not very often communicated as such.

Sendai Framework for Disaster Risk Reduction 2015-2030 has four priorities for action to prevent new and reduce existing disaster risks:

- Understanding disaster risk;

- Strengthening disaster risk governance to manage disaster risk;

- Investing in disaster reduction for resilience;

- Enhancing disaster preparedness for effective respond, and to "Build Back Better" in recovery, rehabilitation and reconstruction.

It aims to achieve the substantial reduction of disaster risk and losses in lives, livelihoods and health and in the economic, physical, social, cultural and environmental assets of persons, businesses, communities and countries over the next 15 years.

National targets and indicators will contribute to achievement of outcome and goal of the present Framework. The seven global targets are:

1. Substantially reduce global disaster mortality by 2030 (aiming to lower the average per 100,000 global mortality rate);
2. Substantially reduce the number of affected people globally by 2030 (aiming to lower the average global figure per 100,000);
3. Reduce direct disaster economic loss;
4. Substantially reduce disaster damage to critical infrastructure and disruption of basic services;

(5) Substantially increase the number of countries with national and local disaster risk reduction strategies by 2020;

(6) Substantially enhance international cooperation to developing countries;

(7) Substantially increase the availability of and access to multi-hazard early warning systems and disaster risk information.

States have to enhance and strengthen MHEWS(Multi-Hazard Early Warning System) (par 14, 25), to develop and invest in regional multi-hazard early warning mechanisms (par 34-c) and give support to strengthen and implement global mechanisms on hydro-meteorological issues.

The international cooperation for DRR(Disaster Risk Reduction) is important. To enhance such cooperation it is also crucial to promote real time access to reliable data, make use of space and in situ information, including geographic information systems (GIS).

There are 17 sustainable development goals adopted a year ago and ones of special interest for NMHSs are goal nr. 13 – climate action and nr. 11 – sustainable cities and communities.

Targets for goal 13 (climate action) are:

* Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries
* Integrate climate change measures into national policies, strategies and planning
* Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning
* mobilizing jointly $100 billion annually by 2020 to address the needs of developing countries in the context of meaningful mitigation actions and transparency on implementation and fully operationalize the **Green Climate Fund** through its capitalization

Relevant targets for Goal 11 (sustainable cities and communities) are:

* significantly reduce the number of deaths and the number of people affected and substantially decrease the direct economic losses caused by disasters, including water-related disasters
* reduce environmental impact of cities, including by paying special attention to air quality and municipal and other waste management
* mitigation and adaptation to climate change, resilience to disasters, and develop and implement holistic disaster risk management at all levels

In the later discussion was explained what is the goal of Res. 9 and how to achieve it. The goal of Res. 9 is to standardize the identifiers for cataloguing extreme weather, water and climate events. Thus, Res. 9 will assist in identifying the key elements we need to measure to link losses (or damage) to climatic and synoptic events.

One of ideas is to establish International Network for Multi-Hazard Early Warning Systems (IN-MHEWS). This network should be focused on MHEWS based on Standard Operating Procedures (SOPs) plus Impact-based Forecasting and Risk-based Warnings (IBF&RBW).

Key objectives of IN-MHEWS are focused on integration and crosscutting activities and provision of coordination and advisory mechanism that brings stakeholders and experts from different sectors and hazard clusters together. In specific, these objectives are:

- Identify effective strategies and actions to promote and strengthen MHEWS

- Facilitate sharing of good practices and making available to governments and key stakeholders policy-relevant guidance to enhance MHEWS and related services

- Promote synergies and partnerships between and among stakeholders at national, regional and international levels and local levels

- Advocate usefulness of MHEWS in regional and international platforms and among key stakeholders, including donors and across all sectors.

International Conference on MHEWS (IC-MHEWS) will be held in Cancun, Mexico (22-23 May 2017) and will identify effective strategies and actions needed to promote and strengthen MHEWS.

Mr. Daniel Kull then talked about **„Activities of the World Bank in Europe and Central Asia (ECA)“**. In the beginning, Mr. Kull gave a short overview on World Bank Group.

 “Twin goals” of WBG is to end extreme poverty and promote shared prosperity. Its mission is to be a source of financial and technical assistance to developing countries. WBG gives different kind of loans to clients in Europe and Croatia. IDA – Credits & Grants (grants = free money) are given to Kosovo, Kyrgyz Republic, Tajikistan. IBRD – Loans are given to Albania, Armenia, Azerbaijan, Belarus, Bosnia and Herzegovina, Bulgaria, Croatia, Georgia, Kazakhstan, FYR of Macedonia, Montenegro, Poland, Romania, Russian Federation, Serbia, Turkey, Turkmenistan and Ukraine. The blend of these two different loans is given to Moldova and Uzbekistan.

Recently Europe was also faced with great losses and poverty that floods cause. In Bosnia and Herzegovina flood 2014 took 15 % of Bosnia and Herzegovina GDP and in Serbia the cost of flood was 5 % of GDP. The estimations are that in one major flood could be lost almost 20 % of BDP.

In many regions NMHSs’ capacity is not adequate and was considerably degraded in some countries during the last 25-30 years. This is the result of great reductions in hydrometeorological observations that follow the transition in these countries. Now there is a huge need for hydrometeorological network, especially because of more and more visible climate changes, and we also have to think about modernization. Modernization investment must be substantial to achieve transformation in institutional strengthening, modernization of observation infrastructure and forecasting and enhancement of the service delivery system.

Sustainable operations and financing requires:

* Clear demonstration of the importance of observational and data processing infrastructure
* Rigorous and widely understood demonstration of the socio-economic benefits, both public and private
* Systematic basis for prioritizing the use of available funding for infrastructure and service development and improvement
* Economic evidence for additional investment in climate services infrastructure

The most important lessons learned in the process of financing and modernizing hydrometeorological networks in ECA are:

* Invest in capacity, from management to technical
* Ensure long-term operations and maintenance (O&M) commitment
* Strong user interface leads to better and more sustainable services
* User capacity as important as provider capacity
* Prioritize public services – open data approach best
* Consider sensitivities, challenges and opportunities of public-private partnership
* Approach fee-based services with great caution
* Leverage international and regional systems
* Leverage and coordinate international and domestic partners

In the discussion that followed Mr. Kull explained that in the financial ministries of every country should be a person that is in charge for WGB. He also said that the processing time from claim to giving a loan is approximately 5 months.

Mr. Pieter Groenemeijer, as representative of European Severe Storms Laboratory (ESSL), presented the “**Research and Trainings at the ESSL”**

ESSL is seated in Wessling, Germany on the premises of DLR (German Aerospace Center), with non-profit subsidiary focused on science and training in Wiener Neustadt, Austria.

The ESSL is non-profit organization in association with members like NHMS, EUMETSAT, research institutes, individual scientists and (re-)insurance sector. Its statutory purposes are to perform and support severe weather research at a European level, management and development of the European Severe Weather Database (ESWD) and organization or support of the European Conference on Severe Storms.

European Severe Weather Database ([www.eswd.eu](file:///C%3A%5CUsers%5CEliteBook-user%5CAppData%5CLocal%5CTemp%5Cwww.eswd.eu)) is pan-European database of severe weather reports (tornados, severe wind gusts, large hail and extreme rainfalls) that contains 102 000 data collected in cooperation with networks of storm spotters, NHMS, and individuals. In later discussion it was mentioned that the most of the data are missing from South Eastern Europe. Information gained that way should go through quality control (operated by ESSL quality control, Voluntary Observer Network (VON) or NHMS). Reliable sources include conclusive photo and/or video material (with accurate time & location) and certified storm spotter reports.

The data set is inhomogeneous in time and space so one cannot directly derive trends from the data but one can use ESWD data to find out under which atmospheric conditions severe weather occurs. Considering ESWD data in relation to climatology the first steps have just been made mostly through STEPCLIM project (Severe Thunderstorm Evaluation and Predictability in Climate Models). ESSL also works in climate researching and forecasting.

The data from ESWD are used in forecast verification, monitoring of extreme event occurrence (nationally - at weather services and at Regional Climate Centre Offenbach Node on Climate Monitoring/RCC Node-CM RA-VI), in validation of nowcast and forecast methods (satellite, radar, NWP) and in risk modelling studies.

*European Storm Forecast Experiment* (ESTOFEX) is a group of volunteers consisting of forecasters and researchers who provide convective forecasts online since 2002 which are used as additional information by forecasters of virtually all European NHMS.

*European Storm Forecast Support* (ESFS) is a Working Group that aims to improve severe storms forecasting across Europe with goals such as:

producing daily convective forecasts for Europe (similar to ESTOFEX), developing a framework for the verification of these forecasts, accommodating communication between ESFS forecasters by periodic teleconferences and a virtual platform for discussion, compiling a document on best practices and other training material in forecasting severe convection and supporting national forecasts and warnings.

For ESFS in its current stage is important to build critical mass of interested weather services. For now, first expressions of interest were given from: MeteoSwiss, FMI, SMHI, IMGW. If you are interested, you should contact Pieter Groenemeijer to receive the document describing initiative. In response to numerous requests ESSL will offer trainings at NHMS locations starting in 2017, using the Testbed web-interface.

ESSL would welcome additional NHMS members. Members fee depends on nominal GDP per capita and/or size of organization and it is cca € 100 – 1200 per year for SEE NHMS. In later discussion was stated that ESSL hopes to be able to rotate the forecasters from different NMHSs and also that members itself should perform quality control.

European Conference on Severe Storms will be held in Pula, Croatia, 18-22 September 2017 in cooperation with DHMZ (Meteorological and Hydrological Service of Croatia). Topics will include: forecasting, nowcasting, radar, satellite, impacts, climate studies, storm dynamics and flash floods. For questions about ESSL, ESWD, trainings, or the conference contact: inflow@essl.org.

Prof. dr Florian Pappenberger, ECMWF, represented “**ECMWF - the new 10-year strategy“**.

ECMWF’s purpose is to develop a capability for medium-range weather forecasting and this centre is complementary to the National Meteorological Services and works with them in research, numerical weather predictions, supercomputing and training.

One of major and permanent ECMWF goals is forecast quality improvement. By 2025 forecast targets are: *e*nsemble predictions of high impact weather up to *two weeks* ahead, predictions of large scale patterns and regime transitions up to *four weeks* ahead and global-scale anomalies up to a *year* ahead. To achieve such goals there are multiple components needed as are: observations, high resolution ensemble, Earth-system, scalability, funding and people.

In the field of collaborations ECMWF is:

* Partner with universities and research institutes – Open IFS
* Strategic partnerships in Earth observation
* Pooling expertise to improve scalability of data assimilation
* Providing collaborative data bases
* Regional modelling co-operation

In summary, the common goals for the next 10 years are:

* to keep the high level of operational forecasts AND research,
* development of forecasting high-impact weather, regime transitions and global-scale anomalies,
* integrated ensemble at high resolution
* Earth-System model at all time-ranges
* scalable computation
* environmental information services: Copernicus project

Earth-system model, mentioned above, concentrates on atmosphere with the goal of increasing resolution on 1 km or even 0,5 km in next five years.

In the discussion that followed, Mr. Pappenberger explained that the expectations are that in 10 years or so the heat waves and wind gusts would be more narrowly predictable.

As every ECMWF forecast assembles 40 000 000 observations from Europe, there is still no computer big enough to capture numerous observations in high resolution and now ECMWF works hardly on scalability.

Copernicus programme (EU Programme managed by the European Commission) will bring to climate change service which will be responsible for information on monitoring and predicting climate change and help to support adaptation and mitigation strategies.

EFI (Extreme Forecast Index) is one of most popular ECMWF products but it will still be a challenge to many to get adapted to this model. That is why the training courses will be organized and it will be also necessary to engage ECMWF members in training the trainers among them to work on this courses.

One of the questions was what about the new members’ policy and Mr. Pappenberger announced that the new members’ policy should be issued this autumn.

One of major task in front of NHMSs, ECMWF and many others working in hydrology and climatology is how to communicate uncertainties and particularly dangerous are early warnings.

The other task is to find the way how this large amount of data would be delivered to members. Among data is especially or almost impossible to deliver all kind of visualisations – using *cloud* *technology* might be a solution when transferring of data is in question.

Country presentations

After the presentation of invited lecturers, **the first part of** **country presentations** was delivered.

- for Bosnia and Herzegovina:

* + Federal Hydro-meteorological Institute
	+ Republic Hydro-Meteorological Service of Republika Srpska

Both services expressed great mutual satisfaction with mutual collaboration on some EU IPA projects (for example, project for Bosnia River Basin) without involvement of politics.

- Bulgaria

Radar network in Bulgaria, with five meteorological radars, is managed by the Bulgarian Air Traffic Services Authority and Hail protection services.

One of information offered by National Institute of Meteorology and Hydrology is early warning systems in case of natural disasters and industrial accidents (including nuclear accidents).

NIMH organizes and performs scientific investigations in the field of meteorology, agrometeorology, hydrology, management and use of water resources in Bulgaria, executed through projects financed by EU programs, WMO, National funds, public and private organizations and companies. Ongoing projects related to bilateral and multilateral international cooperation are: ALADIN, Enhancing capacity for flood forecasting in the Bulgarian-Turkish part of the River Maritsa and River Tundzha, DMCSEE, ORIENTGATE, ECOPORT8, TEN ECOPORT, ARDAFORECAST, WATER, SAAP4FUTURE.

- Israel

Israel will join Meteoalarm in 2017 which was welcomed by all participating members. Among plans of Israel Meteorological Service is improving precipitation, flood and severe weather forecasts. NMS of Israel also publishes *raw*, automatic data every 10 minutes.

This presentation ended the 1st day of the ICSEED Conference.

**DAY 2 / 7 October 2016**

**Second part of country presentations** continued almost to the end of the 2nd day as follows:

 - Greece

It was highlighted that marine information is extraordinary important when rescuing refugees as well as well developed lighting detection network and warning alerts for extreme weather (strong winds, high or low temperatures, thunderstorms, severe rainfall, fog).

- Cyprus

A main effort is to work on automatization. It is interesting to say that one of two radars is in private sector. One of ongoing projects is Dust Model in collaboration with Serbian Hydrometeorological Service.

- Kosovo

Hydrometeorology Institute of Kosovo established database of meteorology, hydrology, climatology and environmental data (air, water and soil quality). Creating separate website for Kosovo hydrology is work in progress.

- Jordan

Experiments in weather modifications - producing rain by using airplanes and chemical substances.

- Macedonia

Macedonian NHMS publishes free data on its website and is strongly aware that the cross border cooperation is mandatory.

- Montenegro

Finished projects ECRAN (partner states were: Albania, Bosnia and Herzegovina, Croatia, Kosovo, Macedonia, Montenegro, Serbia, Turkey and Iceland) and LEAP (beneficiaries of this project are all the countries of the Western Balkans and Turkey). Ongoing project now is DANUBE CLIM, CORE and WBIF project: Improvement of Joint Flood Management Actions in the Sava River Basin .

- Moldova

Now works on World Bank project on weather risk management. Meteoalarm is now in test mode and it will be fully operational from 1st January 2017.

- Romania

National Meteorological Administration works hard on modernization of weather data delivery. In the 2007-2015 period, activities related to the modernization of meteo- and agrometeorological networks have been performed. At the moment, the maintaining of the radars is quite big problem.

- Serbia

16th ICSEED Session will be held in Belgrade. The date is yet to be decided.

- Slovenia

In finished project all meteorological stations were automatized and drought risk project has just been approved. Although all data were opened there is still added value on which Slovenian NHMS can earn.

- Ukraine

As observer had not a presentation.

- Turkey

Turkish state meteorological service (TSMS) has 24/7 meteorological service at 73 airports and 17 radars (covering very hard, sharply and suddenly changing topography and several microclimatological regions in Turkey). TSMS also provides information on cloud to ground and inter-cloud lightning and on location, number and intensity of lightning - such data are provided for sectors as aviation, energy, disaster management and insurance. TSMS also has a very well designed and equipped calibration centre with 8 calibration laboratories (temperature, relative humidity, pressure, wind speed, precipitation, solar radiation, electrical and wind direction).

ICSEED future plan

An establishment of the virtual centre for South-East European Multi-Hazard Early Warning Advisory System, with a perspective to collaborate with other regional projects, is strongly supported.

ICSEED-16 Session will be held in Belgrade, Serbia (with the date yet to be decided)

Other business and conclusions

- Ms Florinela Georgescu asked members, which hosted ICSEED Sessions, to send archive documentation from the sessions (agreements, minutes, country reports etc) to the chair. Dr. Nataša Strelec Mahović suggested the establishment of a cloud where archive documentation will be available for all Members. It was then said that the archive of ICEED documentation from the sessions already exists in Turkey which collects all such documentation. List of the previous hosts of ICEED meetings is represented in Appendix III.

- ICEED countries should strengthen collaboration among themselves and with international entities as WMO, ECMWF, EUMETSAT, EUMENET, ECOMET etc.

- common problem among all ICEED members is lack of money and staff or both

- establishment of a virtual centre for South-East European Multi-Hazard Early Warning Advisory System

- the way of better communication among Members should be established – all Member countries would have better insight on mutual interests and situation

- right now WMO works on extranet which will be easily accessible by other countries

**ANNEX 1**

**15th Session of the Informal Conference of South-East European NMHSs Directors (ICSEED-15), 6-7 October 2016, Zagreb, Croatia**

**LIST OF PARTICIPANTS**

|  |  |
| --- | --- |
| **Participants** | **Attending** |
|  | ***Name*** | ***Country*** | ***Position*** | ***Institution*** | ***Email*** | ***Project kick-off*** | ***ICSEED*** | ***CAP workshop*** |
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| 17 | Elena Mateescu | Romania | Executive Director  | National Meteorological Administration  | elena.mateescu@meteoromania.ro | x | x |  |
| 18 | Florinela Georgescu  | Romania | Executive Director  | National Meteorological Administration  | florinela.georgescu@meteoromania.ro | x | x |  |
| 19 | Klemen Bergant | Slovenia | Director | National Meteorological Service | Klemen.Bergant@gov.si | x | x |  |
| 20 | Oliver Romevski | the former Yugoslav Republic of Macedonia | Director | Hydrometeorological Service | oromevski@yahoo.com | x | x |  |
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| 23 | Pieter Groenemeijer |  | Director | European Severe Storms Laboratory e.V. (ESSL) | pieter.groenemeijer@essl.org | x | x |  |
| 24 | Florian Pappenberger |  | Director of Forecasts | ECMWF | florian.pappenberger@ecmwf.int | x | x |  |
| 25 | Daniel Kull |  | Humanitarian-Development Attaché,Senior Disaster Risk Management Specialist | World Bank Group - Geneva | dkull@worldbankgroup.org | x | x |  |
| 26 | Petteri Taalas |  | Secretary-General | World Meteorological Organization | sgomm@wmo.int | x |  |  |
| 27 | Milan Dacic |  | Chief, Regional Office for Europe | World Meteorological Organization | mdacic@wmo.int | x | x |  |
| 28 | James Douris |  | Project Officer | World Meteorological Organization | jdouris@wmo.int | x | x | x |
| 29 | Alasdair Hainsworth |  | Chief Disaster Risk Reduction Services Division | World Meteorological Organization | ahainsworth@wmo.int | x | x |  |
| 30 | Xu Tang |  | Director, Weather and Disaster Risk Reduction Service | World Meteorological Organization | wds@wmo.int | x | x |  |
| 31 | Paul Pilon |  | Chief, Hydrological Forecasting and Water Resources Division | World Meteorological Organization | ppilon@wmo.int | x | x |  |
| 32 | Sari Lappi |  | Project Manager | WMO/FMI Project Office | slappi@wmo.int | x | x | x |
| 33 | Ivan Čačić |  | President of RA VI | World Meteorological Organization | cacic@cirus.dhz.hr | x | x |  |

**ANNEX 2**

**15th SESSION OF THE INFORMAL CONFERENCE OF SOUTH-EAST EUROPEAN NMHSs DIRECTORS (ICSEED-15)**

**ZAGREB, CROATIA**

**6-7 October 2016**

**Hosted by** **Meteorological and Hydrological Service of CROATIA**

|  |
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| ***Thursday, 6 October, 2016*** |
| 0900-0915 | Registration of participants |
| 0915-1000 | **Opening:*** *Director of the National Meteorological Administration of Romania, ICSEED Chair*

**Welcome addresses:**  *- Dr. sc. Nataša Strelec Mahović, Director of the Meteorological and Hydrological Service of Croatia***High Representative welcome addresses:*** *Mr. Ivan Čačić, President of Regional Association VI WMO*
* *Mr. Xu Tang, WMO Secretariat*
* *Mr. Milan Dacić, WMO Representative for Europe*
 |
| 1000-1010 | **Approval of the 15th ICSEED Session Agenda*** *ICSEED  Chair*

**Short report and approval  Minutes of the 14th Session****Appointment of the new *ICSEED Chair*** |
| **1010-1030** | **COFFEE / TEA BREAK / Group photo!**  | **20 minutes** |
| 1030-1100 | **RA VI Achievements and Future Plans*** *Mr. Ivan Čačić, President of Regional Association VI*
 |
| 1100-1130 | **Integrated Flood Management: the experience of the Associated Programme on Flood Management (APFM)** ***-*** *Dr. Paul Pilon, Chief, Hydrological Forecasting & Water Resources Division , WMO* |
| 1130-1245 | **Implementation of the Cg-17 Resolution 9** * *Mr. Alasdair Hainsworth, Chief Disaster Risk Reduction Services Division,DRR Office, WMO*
* *Mr. Jim Douris, Project Officer, DRR Office, WMO*

**Discussion** |
| **1245-1400** | **LUNCH BREAK** | **75 minutes** |
| 1400-1430 | **Activities of the World Bank in Europe and Central Asia*** *Mr. Daniel Kull, Senior Disaster Risk Management Specialist*

 *World Bank Group, Geneva.* |
| 1430-1515 | **Research and trainings at the European Severe Storms Laboratory*** *Dr. Pieter Groenemeijer, Director, ESSL – European Severe Storm Laboratory*

**Discussion****Wrap up** |
| **1515-1530** | **COFFEE / TEA BREAK** | **15 minutes** |
| 1530-1700 | **Country Presentations** – *achievements between two meetings and present actions*  Part 1  **Discussion**  |
| **1700** | **END OF DAY 1** |
| **1900** | **Sightseeing tour to Zagreb organized by the Meteorological and Hydrological service of Croatia** |
| ***Friday, 7 October, 2016*** |
| 0900-0930 | **ECMWF - the new 10-year startegy*** *Prof. dr Florian Pappenberger*, *ECMWF*
 |
| 0930-1030 | **Country Presentations** – *achievements between two meetings and present actions*Part 2 **Discussion** |
| **1030-1100** | **COFFEE / TEA BREAK** |
| 1100-1145 | **Country Presentations** – *achievements between two meetings and present actions*Part 3  |
| 1145-1245 | **ICSEED Future Plans***- Discussions and suggestions for common projects in SE Europe* Date and place for the next ICSEED meeting  |
| **1245-1400** | **LUNCH BREAK** |
| 1400-1430 |  Any other business**Conclusions** |
| **1430 -** | **CLOSURE of 15th Session of ICSEED** |

**ANNEX 3**

**ICEED (ICSEED) – Meeting Overview**

**1-st ICEED**

**Sofia, Bulgaria, 2001**

Signing of the basic document on co-operation

**2-end ICEED**

**Geneva, Switzerland, 2002**

- on occasion of WMO Congress

**3-rd ICEED**

**Athens, Greece, 2003**

Role of sub-regional NMHSs for coming Olympic games in 2004

**4-th ICEED**

**Bucharest, Romania, 2004**

Establishment of the document on the role and importance of

the ICEED sub-region within the WMO structure / policy

**5-th ICEED**

**Sarajevo, Bosnia and Herzegovina, 02 – 04 June 2005**

* ICEED Principles (11 articles)
* ICEED Operative Actions / Projects as the basis of the NMHSs

 cooperation and sub-regional programmers in the SE Europe

**6-th ICEED**

**Dubrovnik, Croatia, 2 – 5 May 2006**

* WMO sub-regional centers of excellence proposals

**7-th ICEED**

**Beograd, Serbia, 11 – 12 October 2007**

**8-th ICEED**

**Podgorica, Montenegro, 29-30 September 2008**

**9-th ICEED**

**Ljubljana, Slovenia, 10-11 December 2009**

**10-th ICEED**

**Istanbul, Turkey, 21-22 September 2010**

**11-th ICEED**

**Tel-Aviv, Israel, 10– 11 October 2011**

* changed name from ICEED to ICSEED
* new ICSEED principles
* decisions

**12-th ICSEED**

**Sofia, Bulgaria, 18-19 April 2013**

**13-th ICSEED**

**Banja Luka, Bosnia and Herzegovina, 28-29 April 2014**

**14-th ICSEED**

**Buharest, Romania, 5-6 November 2015**

**15-th ICSEED**

**Zagreb, Croatia, 6-7 October 2016**