

EUSDR Annual Report of the Third Year

EU Strategy for the Danube Region Priority Area 5 "To manage Environmental Risks"

co-ordinated by Hungary and Romania

EUSDR Report June 2014

Priority Area 5 To manage Environmental Risk

1. OVERALL PROGRESS

Priority Area 5 (PA5) not only deals with environmental risks like flood, drought, forest fires, storms, erosion, icing and water scarcity, but also with manmade risks. Further PA5 is also concerned with the operational cooperation among the emergency response authorities.

1.1. State of play

1.1.1. Progress made

2013 is the year of planning the Multiannual Financial Framework. The EUSDR provided us with enough possibilities to get acquainted with the planning process and to provide the planners with the methodology and the needed input from the professional side. However, the OP document reached a certain maturity, but by the time of this report it has been discussed and completed with the help of all of the steering group members.

The third year of the EUSDR brought a great change and a boost in the work of the PA5. After some personal changes in the Hungarian coordination, new and more effective ways of both the communication, both the ways of undertaking tasks has been developed.

As the long list of activities shows, PA5 had an active and fruitful period:

- Following the May-June 2013 flood on the Danube and the high level initiatives of HE M. Spindeleger, Commissionare J. Hahn, HE Corlatean, HE J. Martonyi and HE J. Áder PA5 has launched a "Flood Survey" to find out the needs of the DRS countries to improve their capabilities of coping with such extreme flood (for details of the "Flood Survey" and the resulting "Danube Region Enhanced Flood Management and Cooperation Plan" DREFMCP see below)
- 11-12 Sept 2013, Budapest (Danube Trans-boundary Water Issues Conference): a large event with high political representation and with 230 registered participants; PA5 was represented by 4 scientific lectures; joint program with PA4 on the water quality monitoring and its interconnection to an early warning system; Pillar II Annual Stakeholder Seminar presents how science can help the Danube Strategy
- 16 Sept 2013, Budapest (NCP Meeting) Draft Danube Region Enhanced Flood Management and Cooperation Plan (DREFMCP) being presented to NCPs
- 3-4 Oct 2013, Bratislava (ICPDR 24th FP EG Meeting) Draft Danube Region Enhanced Flood Management and Cooperation Plan (DREFMCP) was presented; agreement on distribution of work between PA5 SG and FP EG was established; PA5 launch a survey to find out the needs of the countries for all the problems that should be solved on a basin level. The Flood Protection



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Expert Group started to prepare a technical report, PA5 will develop a Flood Action Programme due to the outcomes of the survey.

- 8-11 Oct 2013, Budapest, Budapest Water Summit: trans-boundary cooperation of Ukraine and Hungary in integrated watershed management in frame of the Danube Region Strategy (HU-UA Flood Protection Programme) was presented.
- 9-11 Oct 2013, Budapest (Danube Transnational Programming Task Force) Danube Transnational Programming Task Force: the idea that flood issues should be financed by the Danube Transnational Programme was introduced.
- 28-29 Oct 2013, Bucharest (EUSDR Annual Forum): for PA5 Draft Flood Action Plan was presented in relation to improving the basin wide flood management. Commissioner Hahn convened a meeting of PA4 and PA5 PACs and the RO, HU and SK NCPs to emphasize the need to make more efforts, to boost the activity of PA4 and PA5 and to make a Synergy of ICPDR and PA4 and PA5 tasks and activities.
- 11-13 Nov 2013, Baden (ICPDR Workshop): Following Commissionaire Hahn's incentives on sharing the duties of ICPDR and the Danube Strategy the Heads of Delegations agreed that there shouldn't be 2 or 3 documents going to the European Commission. It should be one document with the ICPDR and Danube Strategy. The head of delegations charged the Executive secretary to approach the HU, RO and SK National Contact Points of the Danube Region Strategy to formulate a document that makes this demarcation and the distribution of tasks between Danube Region Strategy and ICPDR clear.
- 10-11 Dec 2013, Vienna; 16th Ordinary Meeting of Contracting Parties to ICPDR: i.a. the maps of the Areas of potential significant flood risk in the Danube River Basin District were approved, the current version of flood hazard map and flood risk maps as well as the Summary Report on implementation of FD Article 6 in the Danube River Basin were asked to be finalised; contracting parties were asked to submit their national flood risk management measures as input for the forthcoming Flood Risk Management Plan to be finalized by ICPDR by end 2015. Furthermore Contracting Parties to ICPDR mandated the Secretariat to elaborate on the preparation of a draft joint document between the ICPDR and EUSDR PA4 and PA5, clarifying the respective roles and expectations towards generating maximum synergy, clearly expressing the key cornerstones of water related cooperation in the Danube basin based on the existing legal, institutional and political frameworks the ICPDR is established upon, i.e. the Danube River Protection Convention (DRPC), EU Water Framework Directive (WFD), EU Floods Directive (EFD) and Danube Ministerial Declarations and asked the Secretariat to provide the draft joint document to the Heads of Delegations for adoption by written procedure.
- 27 March 2014, 7th SG meeting (Budapest): Romania's proposal for the 2nd call of DR TAF was admitted; the strategic and technical contents of the Operative Programmes were discussed with the SG and the representatives of DG REGIO and the ICPDR. Action 4 was presented by the General Directorate of Disaster Management of Hungary along with the SEERISK project. The first draft of the key findings of the Flood Survey related to Danube Region Enhanced Flood Management was also introduced to the SG.
- 10-11 April, Brno, (ICPDR 25th FP EG Meeting): The "Danube Region Enhanced Flood Management Plan", the PA10 "Technical Assistance Facility" and the "Alignment of Funding –



Operative programmes for EUSDR" were presented. A discussion was held on what is covered by the "coordination of operative flood protection plans" proposed by the PA5. Finally an agreement was reached that no duplicities between the activities of ICPDR FP EG and the EUSDR PA5 should be made. Further the ICPDR has a mandate to design flood risk management policies and propose respective measures and is responsible for preparation of the Flood risk management plan for the Danube River Basin District (level A) and EUSDR provides a platform for running the operative flood protection plans on levels B and C as well as a mechanism for developing the related projects on flood mitigation. Consequently there is a complementary role of both ICPDR and EUSDR in the field of flood risk management requiring close cooperation and maximum use of synergies to avoid any duplicity.

- 19-20 June, Sofia; 12th Standing Working Group Meeting of ICPDR: Heads of delegation of contracting parties to ICPDR agreed with the Summary Report on implementation of EU Floods Directive Article 6 in the Danube River Basin District; note was taken of the current version of flood hazard map and flood risk maps and the Secretariat of ICPDR was mandated to send the Summary Report and the version of flood maps as of October 2014 as informal information to EC with an explanation that the updated maps will be prepared in spring 2015; the Report on Floods 2013 was adopted; with regard to cooperation with EUSDR the head of delegations reiterated that ICPDR has a clear mandate for coordinating flood risk management on Danube River Basin District (level A) based on DRPC and the EU Floods Directive; this includes establishment of a basin-wide flood risk management plan in coordination with national plans and sub-basin plans and that EUSDR is expected to support the measures foreseen on the upcoming flood risk management plan and to provide mechanism for developing related projects on flood risk management, especially flood mitigation.
- 26-27 June 2014, the 3rd EUSDR Annual Forum ensured the PACs that high level support both from the Commission and from the politicians is there to help their daily work The Forum provided an outstanding possibility to enumerate all the actions taken so far, and all the progress and future visions what the PA5 has gained during the third year. The PA5 got the opportunity to prepare three different programs: 2 Workshops, a Speakers corner, and an Exhibition stand as well. Therefore it was possible to highlight the outcomes of both in the field of flood protection, and on civil protection. These activities also made it visible that bi- and multilateral cooperation can be implemented on each and every scale of the Danube Regions actions: during the organisation phase PA5 had the opportunity to unite lecturers, and high level representatives of Austria, Baden-Württemberg, Hungary, Romania and Ukraine. During the Forum Commissioner Hahn received the NCPs and the PACs. At the exhibition stand PA5 could present a perfect example, the cooperation of Hungary and Ukraine in the Upper-Tisza Region, which could serve as a model for the whole of the Danube Region.





Exhibition stand on the 3rd EUSDR Annual Forum: PA5 in practice: common transboundary implementation of Flood directive in Upper-Tisza Region



PA5 Workshop on the 3rd EUSDR Annual Forum: Danube Region Enhanced Flood Management Plan following the devastating floods of June 2013 and the last decade





PA5 Speakers corner on the 3rd EUSDR Annual Forum: Interoperability among emergency response authorities with purpose of mitigation of risk consequences – SEERISK and MASPREM projects, SLO and HU examples

The key action of the PA5 – which was highlighted by Mr. Walter Deffaa, Director General, DG Regional and Urban Policy as a positive example at the opening plenary session of the 3rd Annual Forum – was the Flood Survey which was carried out after the 2013 extreme flood events from the upper-Danube region down to Croatia and Serbia. This series of meetings made it possible to involve those countries in to the work of the Danube Region Strategy who in the previous years seemed to be less active in the Steering Group. HE Michael Spindelegger, Commissioner Johannes Hahn, HE János Áder President of Hungary and many of the foreign ministers of the Danube Region emphasized the need for internationally coordinated actions and confirmed that the EUSDR and PA5 is the right place to coordinate them. To respond to all of these incentives PA5 decided to launch – in close cooperation with the Flood Protection Expert Group of ICPDR – a survey among the Danubian countries to find out their needs for action at basin level to improve the capabilities in coping with flood risks.



After having visited 11 out of 14 countries the impression on common needs are:

- improved flood forecasting,
- enhanced information exchange (both data and operational rules),
- use of remaining financial sources from the present MFF,
- easier use of the solidarity fund (quick response from the fund, increase fund),
- coordination and harmonisation of the emergency response units/authorities,
- flood risk management investments to appear in the OPs etc.

The survey will provide good bases to develop flood risk management programmes and projects.

The following meetings were arranged:

1. 02. 08. 2014. **Czech Republic**

Government Office of the Czech Republic, Prague

Participans:

Jiří Georgiev, Úřad Vlady České Republiky

Pavel Punčochář, Ministry of Agriculture of the Czech Republic Antonín Tůma, Povodi Moravy (Morava River Basin Authority)

Daniela Grabmüllerová, Ministry of Regional Development

2. 10. 10. 2014. Baden-Württemberg, Germany

Ministry of the Environment, Climate Protection and the Energy Sector, Stuttgart, Baden-Württemberg

Participants:

Lennart Gosch, Hochwasserrisikomanagement, Ministry of Environment

Tob Eisele, Ministry of Environment

Matthias Holziger, Baden-Württemberg State Ministry

Carmen Hawkins, Ministry of Environment
Daniel Fissl, Ministry of Environment
Sanja Schülke, Ministry of Environment

Christina Diegelmann, Cross Border and Interregional Cooperation, Baden-Württemberg

State Ministry

Ute Badde, Hochwasservorhersagezentrale (HVZ) der LUBW (State Institute for

Environment, Measurements and Nature Conservation)

3. 11. 10. 2013. **Bavaria, Germany**

Bayerische Staatskanzlei, München, Bavaria

Participants:



Klaus Arzet, PA5 member, Bayerisches Staatsministerium für Umwelt und

Gesundheit (StMUG) (Bavarian State Ministry for the Environment

and Health)

Florian Ballnus, Bavarian State Ministry for the Environment Bernhard Schaipp, Bavarian State Ministry for the Environment

Markus Theuersbacher, Bayerische Staatskanzlei (Bavarian State Chancellery)
Csilla Remann, Bayerische Staatskanzlei (Bavarian State Chancellery)

4. 27. 11. 2013. Austria

Federal Ministry of Agriculture, Forestry, Environment and Water Management, Federal Republic of Austria, Wien

Participants:

Wilfried Schimon, Director General for Water, Federal Ministry of Agriculture, Forestry,

Environment and Water Management

Heinz Stiefelmeyer, FPEG member, Head of Unit responsible for Flood Risk Management,

Federal Ministry of Agriculture, Forestry, Environment and Water

Management

Drago Pleschko, Deputy Head of Unit for Flood Risk Management, Federal Ministry of

Agriculture, Forestry, Environment and Water Management

Clemens Neuhold, FPEG member (representing Austria in EU CIS WG flood risk

management, flood risk groups in Rhine and Danube), Federal Ministry of Agriculture, Forestry, Environment and Water

Management

Reinhold Godina, Head of Unit responsible for monitoring the water cycle including

flood risk pre warning systems, Federal Ministry of Agriculture,

Forestry, Environment and Water Management

Karl Schwaiger, PA5 SG member, Federal Ministry of Agriculture, Forestry,

Environment and Water Management

Jakob Schrittwieser, PA4 SG member, Federal Ministry of Agriculture, Forestry,

Environment and Water Management

5. 06. 02. 2014. Croatia

Ministry of Foreign and European Affairs, Republic of Croatia, Zagreb

Participants:

Ani Pejković, Head of Directorate for European Bilateral Affairs

Helena Zidarić, Head of Department for EU institutions

Ivana Carmen Karačić, desk officer for Hungary Domagoj Marić, desk officer for EUSDR

Ana Pleše, Ministry of Regional Development and EU Funds

Sanja Genzić Jurišević, PA5 member, Ministry of Agriculture, Head of Division of the Water

Policies and International Cooperation, Water Management

Directorate

Nataša Holcinger, National Protection and Rescue Directorate

Zoran Đuroković, Deputy Head of the Main Center for flood, Croatian Waters

Alan Cibilić, Croatian Waters

Borivoj Terek, Head of Division of Hydrology (National Protection and Rescue

Directorate), Meteorological and hydrological service



6. 06. 02. 2014. **Slovenia**

Ministry of Agriculture and the Environment, Republic of Slovenia, Ljubljana

Participants:

Luka Stravs, PA5 SG member, Flood Directive Implementation Coordinator for

Republic of Slovenia, Ministry of Agriculture and Environment

Barbara Potocnik, from Water Management

Slavko Sipec

Bojan Suvorov, Civil Protection and Disaster Relief of the Republic of Slovenia

7. 26. 02. 2014. **Slovakia**

Slovak Government Office, Republic of Slovakia, Bratislava

Participants:

Ladislav Šimko, Government Office, Director of Cross-Cutting Priorities Department,

EUSDR NCP for Slovakia

František Koločány, Government Office František Novotný, Government Office

Dušan Čerešňák, Ministry of Environment, Director General of Water Section Martin Bačík, Ministry of Environment, Director of Flood Managament

Department, FPEG member

Peter Panenka, Vodohospodárska výstavba (Water Management Company), Head of

Strategy Department

8. 05. 03. 2014. **Serbia**

European Integration Office, Government of the Republic of Serbia, Belgrade

Participants:

Dmitar Žakula, PA5 SG member, Ministry of Agriculture, Forestry and Water

Management, Directorate for Water

Dragana Milovanović, PA4 SG member, Ministry of Agriculture, Forestry and Water

Management, Directorate for Water

Marina Babic Mladenovic, Director of Department at Institute Jaroslav Cerni

Sanja Knežević Mitrović, Serbian European Integration Office, EUSDR coordinator within the

NCP office

Sanja Ruzin, Vode Vojvodine (Public water management company)
Marko Vuksanovic, Vode Vojvodine (Public water management company)

Zvonimir Kocic, FPEG member, Srbijavode

9. 17. 03. 2014. **Bulgaria**

Ministry of Regional Development, Republic of Bulgaria, Sofia

Participants:

Miroslav Maznev, Deputy Minister of Regional Development, EUSDR NCP for Bulgaria Vladima Popova, European Coordination Department, Ministry of Regional

Development



Julya Joneva, European Coordination Department, Ministry of Regional

Development

Marya Arangelova, PA5 SG member, FPEG member, Water Management Directorate,

Ministry of Environment and Water

E. Vasileva, Ministry of Interior; Repesentatives of Chief Directorate Fire Safety

and Civil Protection

10. 29. 04. 2014. Ukraine

Upper-Tisza Regional Water Directorate, Hungary, Nyíregyháza

Participants:

Volodimir Csipák, Head of Subcarpathian Water Directorate, Deputy Commissioner

Oleg Kiszil, Tisza Basin Management Directorate, Directory

Viktor Durkot, Tisza Basin Management Directorate, Head of Department

Gáspár Bognár, Head of Upper-Tisza Regional Water Directorate

Attila Varga, Hungarian Secretary of Hungarian-Ukrainian Cross-border Water

Committee

Nikoletta Revallo, Subcarpathian Water Directorate

11. 04. 06. 2014. Romania

Benczúr Hotel, Budapest, Hungary

Participants:

Sándor Pásztor, State secretary for the Water Management of Romania

Olimpia Negru, PA5 co-coordinator, Department for Waters, Forests and Fisheries,

Ministry of Environment and Climate Changes, Romania

Daniela Radulescu, Secretary of CEENBO and Deputy Director of the National Institute

of Hydrology and Water Management, Romania

Sorin Randasu, Director Emergency Situation Department, "Apele Romane" National

Administration

Table 1 Achievements on SG Meetings

Meeting No.	Date/Place	Achievements
6	09/12/2013, Vienna	Review of progress of Actions was presented. The PA5 work regarding Flood Action Plan to improve the basin-wide flood risk management capabilities was defined.
		Need of Demarcation/Synergy document of ICPDR and PA4-PA5 activities was agreed: to develop one harmonized standpoint (ICPDR-NCPs of SK, RO and HU). State of the programming of Operative Programmes by the countries was reported.



7	27/03/2014 Budapest,	Romania's proposal for the 2 nd call of DR TAF was admitted.
		It was agreed that for the 3 rd call numerous projects should be prepared and handed in.
		Strategic and technical contents of the Operational Programming were discussed.
		The first draft of the document Cooperation and Synergies EUSDR – ICPDR was discussed.
		Action 4 was presented by the representative of the General Directorate of Disaster Management.
		SEERISK project was presented.
		The first draft of the key findings of the Flood Survey related to Danube Region Enhanced Flood Management was presented.

The number of participants on each SG Meetings was fairly high though the participation of non EU Member States is very low. For detail See **Table 2**.

Table 2 Participation of Danube Region countries on SG meetings

meeting	AT	BG	BIH	CRO	CZ	DE	HU	MD	MNE	RO	RS	SI	SK	UA	EU	ICPDR
1 st	1			1		1	6		1	2	1		6		1	3
2 nd	1			2	1	1	1			6					1	2
3 rd	1			1		1	5			3			1	1	1	2
4 th	1						1			4	1				1	1
5 th	1					1	12			2			3	3	1	1
6 th	1	1		1	1	3	7			6		1	3			2
7 th	1	1			1		11	2.		4		1	1	2.	2.	2.

As it can be seen from the table above in the third year of EUSDR 3 out of the 14 countries have not shown up at all on the SG Meetings (all are non-EU Member States). However, it is a great improvement that Bulgaria, Moldova and Slovenia this year participated on the SG Meetings for the first time and Slovenia nominated an SG member. Five (MS) countries and the ICPDR along with the European Commission showed steady participation. The PACs and the NCPs should put pressure on the countries not showing up to be present on all meetings or at least to participate in the written procedures. From the 5th SG Meeting we use the TA facility to finance the travel and accommodation cost of each of the non-MS representatives. We find this opportunity useful and intend to continue this practise.

In the last year efforts were made by developing a financial mechanism that allows covering travelling and accommodation costs of non-MS members of the SG Meetings to bring down attendance related difficulties. The Hungarian NCP, the Budapest Danube Contact Point and the Hungarian diplomacy initiated various cooperation platforms, projects and high level agreements to incorporate less active Danube region countries to the work of the SG. An increasing trend can be seen in the participation on the last two SG Meetings.

The 6th SG Meeting was organised back-to-back with the 16th Ordinary Meeting of the ICPDR (9 Dec 2013) with altogether 27 participants. Although this was the highest ever participation but only



8 EUSDR countries (7 member states plus Ukraine) and the ICPDR were officially represented. The Head of Delegation of Slovenia was also present as an observer.

The 7^{th} SG Meeting was organised back-to-back with the PA4 SG Meeting in Budapest (27 March 2014). The participation rate was similar to the previous, 6^{th} SG Meeting.



Presentation of the SEERISK project on the 7th SG Meeting of PA5

In the third year the following project proposal received **Letter of Recommendation** (for details See Annex 2):

- Common HU-UA flood protection development Programme on the Upper Tisza
- Danube River Research and Management (DREAM)
- Climate of the Danube Region (DANUBECLIM)

We are proud that the LoRs went to project proposals of high value and both include investment elements as well.

1.1.2. Outline on the future

Year 2013 was the year of an extreme flood. It affected the upper-Danube from Bayern down to Croatia and Serbia. HE Michael Spindelegger, Commissioner Johannes Hahn, HE János Áder President of Hungary and many of the foreign ministers of the Danube Region emphasized the need for internationally coordinated actions and confirmed that the EUSDR and PA5 is the right place to coordinate them. To respond to all of these incentives decided to launch – in close cooperation with the Flood Protection Expert Group of ICPDR – a survey among the Danubian countries to find out their needs for action at basin level to improve the capabilities in coping with flood risks. After having visited 11 out of 14 countries the impression on common needs are: improved flood forecasting, enhanced information exchange (both data and operational rules), use of remaining financial sources from the present MFF, easier use of the solidarity fund (quick response from the fund, increase fund), coordination and harmonisation of the emergency response units/authorities, flood risk management investments to appear in the OPs etc. The survey continues in the second half of 2014 and will provide good bases to develop flood risk management programmes and projects. A report on this very flood event 2013 was elaborated by ICPDR and adopted June 2014.



1.1.3. Lessons learned

- The most important question is the (lack of) financing. The first question in all meetings: What can we do without financing? In this respect there is no progress since the last Annual Report. On the contrary the information received shows that "there is no left over money" in the system. We are looking forward to the Danube Trans-national Programme, the Horizon 2020, the CBCs and other financing opportunities.
- In spite of the pessimistic comment above we have to mention that a lot of efforts were put in the inclusion of the EUSDR into the OP programming. During our 5th and 6th SG Meetings we queried the SG Member if they were involved in the OP programming of their own country and the answers were positive. All SG members took part of the national programming of the OPs.
- We still have to work on communication. It should be strengthened to let stakeholders know that EUDRS is about **macro regional** (e.g. large) **projects** and **strategy**. Many stakeholders, including ministries, municipalities, universities, NGOs etc. think of smaller, local projects and they are disappointed to hear that EUDRS is not a source of money for those.
- Effort should be made to convince countries of the Danube region to take active part of the work of the SGs. Since the last Annual report we made progress. Ukraine, Moldova, Serbia, Montenegro and Czech Republic informed us that they would like to take a more active part in the EUSDR process. As mentioned above we consider the use of the TA contract for providing travel and accommodation to non-Member States members of the SG as a great opportunity to actively involve them into the work of the SG.
- The EIB Budapest Danube Contact Point has started its operation in this reporting period. The setting up of the "Common HU-UA flood protection development Programme on the Upper Tisza" programme shows that the help of a professional financing institution can greatly help the PAC in identifying and developing viable projects/programmes.

1.2. Process

1.2.1. Progress made on the governance of the PA

- The work of the PA5 SG has been well established during the first year of its operation. Since then the PA5 Steering Group meets twice a year. Between two meetings the communication is done via E-mails. The participation on the SG Meeting is a problem. Not all countries show up and the participation is not steady (See previous Chapter as well). Efforts are made to improve the situation especially with regards to the participation of the non-Member States (use of the TA project).
- An informal cooperation among the PACs of Pillar II has been developed. The 2nd Pillar II PAC's meeting was organized in Vienna in October 2012. The Annual Stakeholder Seminar N°1 and 2 were jointly organized. Since than the other meetings were used for harmonizing the Pillar II activities.
- Within Hungary the NCP and the PACs meet regularly (once a week as a minimum). The NCP also convenes a meeting of the Hungarian representatives in the 12 Steering Groups and representatives of the relevant Ministries once a month. In this way we can follow the progress made in the other PAs. In PA4 and PA5 the work of the Hungarian PACs is assisted by nominated Action Leaders (14 and 8 respectively).



- Responding to the initiative of the JRC (Scientific Support to the Danube Strategy) we built up cooperation with the Hungarian Universities and research centres of the Hungarian Academy of Sciences (HAS). As an outcome of this cooperation with the representatives the Pillar II PACs together with the HAS and the Ministry of Regional Development started to organize the 2nd Annual Stakeholder Forum ("Transboundary water issues in a macroregional context: the Danube Basin") where time was provided for the Hungarian and foreign Academia, including JRC, to present their up to date sciences that can help the execution of the actions of the EUSDR.
- The cooperation with ICPDR continued flawlessly. The PACs regularly report on the progress of the EUSDR at the Standing Working Group Meeting of the ICPDR in June and also at the Ordinary Meeting in December. This provides an opportunity to discuss EUSDR topics with the Head of Delegations of the 14 Danubian countries. More operative exchange of information is done at the level of the ICPDR's Expert Groups. Priority Area 5 has got a strong link to the work done in the Flood Protection (FP EG), , the River Basin Management and the Accident Prevention and Control Expert Groups. The PA5 PAC reports on the meetings of FP EG twice a year on their regular meetings. On the other hand representatives of the ICPDR Secretariat attend the SG Meetings and report back on the progress made in those Actions that are coordinated by ICPDR. A best practise document on the ICPDR-EUSDR cooperation was presented at the "Workshop of the EUSDR Priority Area Coordinators and ETC Danube Programme Task Force" in Ljubljana (21 May).
- A more strategic document on the Synergies between the ICPDR and the EUSDR is being prepared that will clarify how the work can be shared and how a more fruitful cooperation between the two bodies can be achieved.
- 1.2.2. Outline of the significant our work/network approach resulting from the Strategy
 - We built up a cooperation with the Academia (See above)
 - The cooperation with the EU Strategy for the Baltic Sea Region 14.3 Flagship Project ("Working on Macro-Regional Risk: Joint Approaches and Challenges") started before the Regensburg Annual Forum and continued in Brussels on 13-14 May 2013. This meeting with the EUSBSR colleagues opened the door to the cooperation among the civil protection organisation of the two macro-regions.
 - On 23 May 2014 we visited the DG ECHO (Emergency Response Coordination Centre) in Brussels to build up a closer cooperation in relation with emergency response and disaster management related to the work of the Priority Area 5.
- 1.2.3. What, if anything, is missing in order to streamline the governance of the PA (progress not depending exclusively on your PA)? What are you planning to improve in the governance of the PA (progress entirely depending on your PA)?
 - We would appreciate an up to date list of NCPs, PACs and SG members to help better communicating among us. This would require a more structured/regulated nomination and/or cancellation of players and setting up a central database that is available for all participants of the EUSDR processes. The list available on the central EUSDR homepage is out of date. The nomination of SG members basically comes from the country (in ideal cases



from the NCP) nominating a new member, but the withdrawal of the former SG member is never done. Thus in each cases the PAC should start investigating who is replacing who.

1.2.4. Outline on the future. Next steps and challenges.

- We have to intensify the work of the SG. The potential new funding sources and the use of the TA grant (See above) will definitely help.
- We have to better use the opportunities for funding project proposals by using the Technical Assistance Facility and also the new START DRS project fund provided by PA10.
- Further strengthening the bilateral efforts to mobilise the so far not too active Danube Region countries as well will boost participation of SG members in the work of the Steering Group.
- We should put more efforts in developing project proposals to better reflect a macroregional focus (2-3 to start with) to be able to use the opportunities of the next MFF. The revisiting of the roadmaps is required for this work.
- We should further strengthen our cooperation with all the emergency response authorities and with the climate adaptation stakeholders in the Danube Region to better cover the scope of PA5.
- Following the May-June 2013 extreme flood PA5 with strong political support has launched a survey to find out what the EUSDR could do at basin wide level to cope with the similar (See above).

1.3. Funding

One of the core activities of the EUSDR is the alignment of funding for the interventions and goals proposed and endorsed by the European Commission and the European Council in the Action Plan. Roadmaps and Milestones further identified for the implementation of the Action Plan in the respective Steering Groups.

Programming of PA5 specific interventions was an agenda point in the 5th SG meeting. The DG REGIO and Hungarian NCP broadly introduced the state of play, tasks and legislative background of programming Macro Regional Strategies to 2014-2020 Multiannual Financial Framework, while SG members provided a preliminary snapshot of national implementation of OP programming especially in the fields of PA5 (6th - 7th SG Meeting).

The Danube Transnational ETC programme is expected to have an important role in macroregional coordination, assessment, monitoring, support of institutional cooperation and planning. Via National Contact Points the PA5 requested to that management of environmental risks be incorporated to the OP. The proposal was well received and was passed with support to the Task Force preparing the programming of the OP.



- 1.3.1. Progress made since the last reporting period on identifying funding opportunities and sources: use of existing funds, new financial instruments, etc. (including comparisons with the last reporting period);
 - The EIB Budapest Danube Contact Point has been set up prior to this reporting period. They provide us with expert advices on financing possibilities and they also follow the emerging financing opportunities.
 - Unfortunately we were not successful applying for (existing) funds. This actually was the problem of charging a lead person who was overloaded with other tasks and could not spend enough time on writing a good proposal on time. The selection of the lead person should be more carefully done in the future.
 - All participating countries reported their involvement in OP programming (See above), which should remain a continuous, priority task of the SG and its members till the end of year 2013. We should use the momentum and the links that were built up to make sure that the first calls already have got strong EUSDR elements.
 - PA5 SG supported the Romanian project proposal "Danube Floodplain". The proposal for submitted for PA10 TAF and got selected.
- 1.3.2. Progress made since last reporting on developing mythologies/criteria for selecting/supporting PA relevant projects (including comparisons with the last reporting period);
 - The selection process and the criteria for PA5 and Pillar II worked all right. We felt that a good balance between the selected/rejected project proposals worked well, thus we don't feel at the moment the need for changes. But we follow the evolution of the selection/labelling practice in the EUSDR and will make the necessary changes when relevant.
- 1.3.3. Opportunities and challenges regarding the funding of relevant projects;
 - We are looking forward to the new MFF and the opportunities it provides for the EUSDR project proposals. We focus on developing new project proposals (*See Sub-Chapter 1.3.1*).
 - The SG is not a funding agency. It can only provide a supporting letter (Letter of Recommendation) to the new project proposals. Its success highly depends on the weight the LoR is given during the evaluation of the project proposals. Thus an overall strict rule of issuing the LoR should be developed for all priority areas of EUSDR. Further a project proposal with an LoR should have advantage over the one without LoR.
 - We use the TAF by PA10 as well as the new START initiative.
- 1.3.4. Lessons learned, positive or negative,
 - We need support in identifying financing possibilities for PA5 project proposals. We feel that the EIB Budapest Danube Contact Point can provide the necessary help.
- 1.3.5. Next steps;
 - We are waiting to see the first outcomes of the TAF by PA10.



2. PROGRESS BY TARGET

2.1. Target 1

Implement Danube wide flood risk management plans - due in 2015 under the Floods Directive – to include significant reduction of flood risk by 2021, also taking into account potential impacts of climate change.

- 2.1.1. Name the actions that contribute to each target.
- Action1: To develop and adopt one single overarching floods management plan at basin level or a set of flood risk management plans coordinated at the level of the international river basin
- Action2: To support wetland and floodplain restoration as an effective mean of enhancing flood protection, and more generally to analyse and identify the best response to flood risk (including "green infrastructure")
- Action3: To extend the coverage of the European Floods Alert System (EFAS) system to the whole Danube river basin, to step up preparedness efforts at regional level (including better knowledge of each other's national systems) and to further promote joint responses to natural disasters and to flood events in particular, including early warning systems

Action 4: To strengthen operational cooperation among the emergency response authorities in the Danube countries and to improve the interoperability of the available assets

Action	Milestone	Milestone: Progress ¹
1	1	Preliminary flood risk assessment on level A: - Completed by the end of 2011
	2	Preparation of flood hazard and flood risk maps: - Templates for flood risk mapping was prepared and adopted by the end of 2012
		 Flood hazard and flood risk maps on the level A: The national deadlines for map preparation reported by a number of countries at the 23rd FP EG meeting and reconfirmed at the 24th FP EG meeting extend until the end of 2014. Therefore, only a draft version of the ICPDR flood hazard and risk maps could be prepared for OM16 (Dec 2013) to obtain a general agreement of the ICPDR with the layout of the maps. Flood hazard and flood risk maps on the level A endorsed by the SG The SG can only endorse the flood hazard and risk maps when the countries delivered them to the FP EG. Work is ongoing; deadline
		is end 2014; DANUBE FLOODRISK project has been finished. "Harmonized Manual of Data & Methods"; "Harmonized Manual of Maps" and the "Danube

¹ The blue lines indicate the progress made since July 2013.



Action	Milestone	Milestone: Progress ¹
		Flood Hazard and Risk Atlas" printed.
	3	Preparation of flood risk management plan for Non-Member States: - "Common Hungarian-Ukrainian flood protection development programme on the Upper Tisza" has been developed till June 2013 (Deadline: June 2013), - The programme received Letter of Recommendation (LoR)
	4	Preparation of flood risk management plan:
		 The basin-wide goals of the flood risk management plan discussed and agreed, Table of Contents of the ICPDR Flood risk management plan drafted (Deadline: End of 2013) ICPDR Flood Risk Management Plan based on provisions and deadlines of EU Floods Directive: work in progress to be finalised by end 2015 (Output No 2-4 not relevant yet) The document of "Alignment of Funding – Operative programmes for EUSDR" contributes to securing the additional financing needed by some of the partners for the Flood Management Plan in all levels during the 2014-2020 Multiannual Financial Framework. Within the frame of "Flood survey" and of the Danube Region Enhanced Flood Management Plan PA5 has consulted over 60 representatives of 11 countries, including institutions of nonmember states. Via these consultations PA5 drafted a document of flood management practices, planning methods in connection with flood risks on a river basin and sub-basin level, including tasks and practices of coordination, and the questions of financial tools. These findings were included into the DR Enhanced Flood Management Plan and Cooperation which is currently under adoption by the SG.
2	1	Successful implementation of the Morava-Thaya Basin initiatives:
	-	- In progress: A new breeding raft was introduced in a lake near Zwerndorf. The river tern (Sterna hirundo) are using the the old as well as the new breeding raft at Zwendorf very well. Due to the cool and very different weather conditions this spring, the young birds have very different age distribution. In total 8 young birds and another 8 breeding birds breeding adult birds were counted. (Deadline: End of 2013)
	2	Development of a Master Plan for the restoration of Floodplains of the
	-	Danube and its tributaries from spring to its discharge into the Black Sea: - Project proposal partially addressing the task is prepared, financing is to be ensured (Lead Partners: Romania and WWF; most of the consortium partners identified; Deadline: 31 May 2013)
	3	Organisation of national and regional workshops concerning the
		 Danube Floodplain restoration: Romania's proposal was submitted for the 2nd call of DR TAF, PA10 awarded the DR TAF support to the project proposal (Deadline: End of 2013)



	Milestone: Progress ¹
1	Establishment of the three operational EFAS centres for hydrological data collection, computation, and dissemination of EFAS information: - Three centres were awarded contracts to start establishing the operational centres. This task was concluded for the computational centre in September, for the dissemination centre in October and the hydrological data collection centre in November (Deadline: End of August 2012)
2	Operational running of EFAS at the operational centres:
	 A full operational EFAS is running in all three centres since autumn 2012. Further the improved EFAS web interface includes now the visualization of initial conditions and anomalies. (Deadline: Ending of GIO ERS in 2013).
3	Following the changes in the operation of contact all partners to
	modify the partnership agreement and contact the remaining hydro/meteorological services responsible for flood forecasting to become a new partner: - All 14 partners are approached to renew the conditions of access
	because of the new operational setup (Deadline: End of 2013) - Nine Danube River Basin countries have signed the new EFAS conditions of access which was necessary due to the transfer of EFAS into the fully operational phase (BG, CR, CZ, DE (BW),
	HU, RO, SR, SK and SI). Austria, Moldova, Germany (Federal Institute of Hydrology) and Ukraine are currently in the process of signing the agreement. Contacts to the corresponding authorities in Bosnia-Herzegovina as well as Montenegro have been established.
4	 Annual training on EFAS: Information and training on EFAS was given at the 7th annual EFAS meeting in Norrkoping, Sweden (12-13 June 2012), as well as at the 8th annual EFAS meeting in Bratislava, Slovakia (24-25 April 2013) including also the Danube partners. (Deadline: Mid 2012 and mid 2013)
5	Bi-monthly bulletins distributed to all EFAS partners providing a
	summary of on-going work, hydro-meteorological situation and description of case studies: - The bi-monthly EFAS bulletins are freely available on
	http://www.efas.eu/efas-bulletins.html. (Deadline: Continuous)
6	Specific ICPDR training workshop on EFAS:
	 A ½ - 1 day training specific to EFAS is envisaged during one of the next ICPDR meetings (Deadline: End of 2014)
7	 Find financing possibilities for EFAS beyond 2013: Supporting letter was sent to Brussels. The European Commission has foreseen budget to continue the initial operations of GMES/COPERNICUS including an operational EFAS. Once the multi-annual financial framework of the European Commission which includes the GMES/COPERNICUS budget has been approved the funding of EFAS will be established (Deadline: June
	3 3 5



Action	Milestone	Milestone: Progress ¹
		2013)
	8	 Early warnings for flash floods: A flash flood early warning component has been developed by the JRC and now fully integrated into EFAS. Flash flood warnings are sent out based on this indicator to all EFAS partners including the Danube region. Currently work is ongoing to improve this flash
		flood warning by including outputs from EFAS and by incorporating information on the landslide susceptibility in the affected areas (Deadline: End of 2014)
4		The Action plan has been developed. The preparation of Action 4 is done
		 partially by the ongoing SEERISK project. Roadmap is elaborated and it is in the process of approval by the Steering Group².
		 In the document "Alignment of Funding – Operative programmes for EUSDR" it appears as a key topic.
	1	Task 1: Harmonisation of the regional disaster risk assessment methods and measures, taking into account the specific effects of climate change to the region, for better disaster prevention
	1/1	Harmonization of preventive disaster risk evaluation method and tools: - A common risk assessment methodology has been developed in Autumn 2013 within the framework of the SEE program financed
		SEERISK project with the cooperation of municipalities, disaster management and research institutions from 9 countries (Austria, Slovakia, Hungary, Croatia, Serbia, Romania, Bulgaria, Slovenia and Bosnia-Herzegovina; Deadline: 2016)
		- A GIS Best practices guideline is being developed until March 2014 within the framework of the SEE program financed SEERISK project (Deadline: 2015)
	1/2	Establishment of the comparability of data/information systems about extreme climatic events
		- (Deadline: 2018)
	1/3	Enhancement of the research and innovation
		- (Deadline: 2018)
	1/4	 Development of a training module on the effects of climate change for disaster management experts and operational staff: Development of a training module on the effects of climate change for disaster management experts and operational staff intervening in emergencies is being planned within the PA5 building on the SEERISK project and consultations with DG ECHO (Deadline: 2017)

² The roadmap is under approval of the SG Members. Some of the results of the SEERISK project can already be used to support this action.



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Action	Milestone	Milestone: Progress ¹
	2	Task 2: Build harmonised training and capacity of the flood rescue teams
		and civil protection operative units
	2/1	Harmonised training and capacity building of the flood rescue teams
		(volunteer and professional) in the Danube region:
		- In 2013 NDGDM has developed a national qualification system for
		volunteer and professional rescue teams, including yearly exercises
		(Deadline: 2018)
	3	Task 3: Establishment of the cooperation forum of the Danube basin
		municipalities and/or relevant institutions for better preparedness,
		awareness and data sharing during flood related interventions and other
		regional disasters
	3/1	Establishment of the operational management of the forum
		(D. III: 2020)
	2 /2	- (Deadline: 2020)
	3/2	Awareness raising and sharing the experiences on the involvement of
		the population into the preparations for disasters (especially flooding)
		and the practices of the recovery measures:
		- A regionally adaptable public awareness survey for measuring the
		preparedness of the population to the climate related risks has been
		developed in autumn 2013 within the framework of the SEE
		program financed SEERISK project.
		- The "Guideline on climate change adaptation and risk assessment"
		was published (Deadline: 2020)

- 2.1.2. What, if anything, was/is missing in order to achieve the planned targets?
 - Action 4: "To strengthen operational cooperation among the emergency response authorities in the Danube countries and to improve the interoperability of the available assets" need be developed end executed. The preparation of Action 4 is done partially by the ongoing SEERISK project.
 - Financing is needed (Action 1, 2 and 4)
 - New projects/programmes need be developed (Action 1, 2 and 4).
- 2.1.3. Lessons learned, positive or negative. Outline the opportunities and challenges regarding the achievement of the targets.
 - Lack of financing,
 - Lack of calls.
- 2.1.4. Outline on the future. Next steps;
 - New projects/programmes need be developed (Action 1, 2 and 4).



2.2. Target 2

To address the challenges of water scarcity and droughts based on the 2013 update of the Danube Basin Analysis and the ongoing work in the field of climate adaptation, in the Danube River Basin Management Plan to be adopted by 2015

2.2.1. Name the actions that contribute to each target.

Action7: Anticipate regional and local impacts of climate change through research

Action8: To develop spatial planning and construction activities in the context of climate change and increased threats of floods

Action	Milestone	Milestone: Progress ³
7	1	 Danube Climate Adaptation Study: The Study has been finalised in January 2012 and is available, together with the Annex on the ICPDR website: http://www.icpdr.org/icpdr-pages/climate-adaptation-study.htm (Deadline: January 2012)
	2	 Danube Climate Adaptation Workshop: The Workshop was organised by ICPDR on 29-30 March 2012 in Munich (Deadline: March 2012)
	3	 Danube Climate Adaptation Strategy: The Danube Climate Adaptation Strategy has been finalised and was adopted at the 15th Ordinary Meeting of the ICPDR on 11-12 December 2012 in Vienna. The Adaptation Strategy is available for download on the ICPDR website:
	4	Check the Danube Climate Adaptation Strategy for completeness: - In chapter 8.2 of the Danube Climate Adaptation Strategy, knowledge gaps and further research requirements were identified (Deadline: End of 2012)
	5	Revision and update of the Danube Climate Adaptation Strategy: - Within the Danube Region Enhanced Flood Management Plan preparing for the more and more frequently appearing events connected to climate change – such as flash floods, fast flowing floods – are emphasized. With the help of complex weather models previously designed flood levels could be reconsidered. Choosing the sub-basin area of Tisza as a pilot area, design flood level had already been reviewed Several consultations were organized between PA5 and PA4

³ The blue lines indicate the progress made since July 2013.



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Action	Milestone	Milestone: Progress ³
		 about the effects of climate change on the operation of water utilities. Hazard risk maps were designed about the possibilities of climate change adaption on the level of the whole region and on the level of the municipalities of the region as well. Taking the KárpátClim project as a model, DanubeClim project had been launched implementing and continuing the tasks and methods, setting the goal of forming a common database collecting processed meteorological data from the last 30 years on a pilot area (Deadline: End of 2018)
8	1	Exploring areas stricken by droughts and water shortage,
		problem management in the Danube region:
		- The work is ongoing in the frame of the ICPDR on the issue
		of water scarcity and drought. A questionnaire on the issue was developed and feedback provided by the Danube
		countries, to be discussed at the 37 th RBM EG Meeting on 9-
		10 May 2013 in Sarajevo.
		- In the document "Alignment of Funding" the drought
		management was identified as a significant issue for
		coordination for those sub-basins affected by severe droughts
		(Deadline: End of 2015)
	2	Measurement of land use aspects of protection against flood, and
		developing recommendations for the application of land use
		aspects in flood risk management plans:
	3	- (Deadline: End of 2017)
	3	Development of spatial planning research program and methodology for the sake of harmful effects mitigation of climate
		change:
		- (Deadline: End of 2018)
	4	Principles of climate-friendly city structure and integration of
		climate-aware architecture solutions in the regulation of
		different sectors:
		- (Deadline: End of 2021)

- 2.2.2. What, if anything, was/is missing in order to achieve the planned targets?
 - Financing is needed
 - New projects/programmes need be developed.
- 2.2.3. Lessons learned, positive or negative. Outline the opportunities and challenges regarding the achievement of the targets.
 - Financing is needed
 - New projects/programmes need be developed.



- 2.2.4. Outline on the future. Next steps;
 - New projects/programmes need be developed.

2.3. Target 3

Update of the accidental risk spots inventory at the Danube River Basin level by 2013.

2.3.1. Name the actions that contribute to each target.

Action5: To continuously update the existing database of accident risk spots (ARS Inventory), contaminated sites and sites used for the storage of dangerous substances

Action6: To develop rapid response procedures and plans in case of industrial accidental river pollution

2.3.2. Progress made since the last reporting period on the achievement of the targets (please treat each target individually) of your PA (explain the political, technical and governance aspects contributing to/affecting the achievement of the targets, including comparisons with the last reporting period).

Action	Milestone	Milestone: Progress ⁴
5	1	ICPDR Accident Risk Spot Inventories:
		- In progress. Five countries have already sent the inventories
		- In the document "ALIGNMENT OF FUNDING – Operative
		programmes for EUSDR" bottlenecks of the implementation
		had been addressed (Dealine: End of 2014)
	2	ICPDR Accident Risk Spot Maps:
		- The possibility of preparation of basin-wide ARS maps as
		well as the related statistical assessments have been
		discussed at the APC EG meeting in March 2014 (Deadline:
		End of 2014)
	3	ICPDR Guidelines and good practices for Tailing Management
		Facilities:
		 A UNECE guidance for tailing management facilities is
		available which was discussed and amended by the APC EG.
		- The actual status of the guidelines and the next steps to be
		taken have been discussed at the APC EG meeting in March
		2014 (Deadline: End of 2014)
6	1	AEWS system upgrade and refining:
		- The AEWS 2.0 has been developed and the ICPDR at its
		15th Ordinary Meeting agreed with bringing it into full
		operation by 1 March 2013 (Deadline: End of 2013)
		 Discussions are started with ICPDR expert groups and PA4
		on potential further support to the operation on the AEWS by

⁴ The blue lines indicate the progress made since July 2013.



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Action	Milestone	Milestone: Progress ⁴
		on-line monitoring and ICT based on the model developed
		under the framework of PA4.
	2	Regular AEWS maintenance:
		- The test took place on 21 January 2013 and was intended to
		prepare PIACs for the official launch of the upgraded
		system. All PIACs participated actively in the test and were
		able to carry out their essential tasks during an accident. The
		updated system proved to be ready for use and was officially launched on 1 March 2013.
		- 24/7 preparedness test was organized in November 2013. In March 2014 a comprehensive test was carried out simulating
		the case when a pollution plume in a river moves down-
		stream through the territory of several countries.
		- Another training was organized at the 6th APC EG meeting
		in March 2014 (Deadline: End of 2013)
	3	International standardization of AEWS:
		- The negotiations between the APC Expert Group of ICPDR
		and the DG ECHO MIC are in progress.
		 The ICPDR wrote a letter to the UNECE expressing its
		willingness to join the standardization process proposed by
		the UNECE aiming at adoption of common standards by all
		existing warning systems to ensure their full compatibility.
		- Complementary actions for the civil protection cooperation
		and flood rescue are done within the framework of Action 4
		in consultation and cooperation with operative civil
		protection authorities and DG ECHO (Deadline: End of 2015)
		2013)

- 2.3.3. What, if anything, was/is missing in order to achieve the planned targets?
 - Financing is needed
 - New projects/programmes need be developed.
- 2.3.4. Lessons learned, positive or negative. Outline the opportunities and challenges regarding the achievement of the targets.
 - Financing is needed
 - New projects/programmes need be developed.
- 2.3.5. Outline on the future. Next steps;
 - New projects/programmes need be developed.



Annex 1: Roadmaps to implement each action

The progress of the actions is given in a text box bellow each milestone. The highlighted text indicates the progress made during the reporting period.

Action 1 - "To develop and adopt one single overarching floods management plan at basin level or a set of flood risk management plans coordinated at the level of the international river basin"

Milestone n°1: Preliminary flood risk assessment on level A

- Work: EFD Article 4(2) stipulates that based on available or readily derivable information, such as records and studies on long term developments, in particular impacts of climate change on the occurrence of floods, a preliminary flood risk assessment shall be undertaken to provide an assessment of potential risks. For the Danube River Basin District a single roof report on preliminary flood risk assessment will be prepared on the level A describing the approaches taken by the countries including the coordination aspects. The report will also address the topics from the EU Reporting Sheet on preliminary flood risk assessment including description of coordination of the identification of the areas of potential significant flood risks (APSFR) within an international river basin district in accordance with the EFD article 5(2).
- Output no 1: Preliminary flood risk assessment report;

 \rightarrow *Responsible*: FP EG

 \rightarrow Deadline: end 2011

Output no 1: Ready. Presented to the 14th Ordinary Meeting of the ICPDR. Report adopted by the Heads of Delegations. Report sent to Brussels.

Milestone n°1 completed in 2011.

Milestone n°2: Preparation of flood hazard and flood risk maps

- Work: EFD requires that Member States shall, at the level of the river basin district, or unit of management, prepare flood hazard maps and flood risk maps, at the most appropriate scale for the areas identified under Article 5(1). The preparation of flood hazard maps and flood risk maps for areas identified under Article 5 which are shared with other Member States shall be subject to prior exchange of information between the Member States concerned. The ICPDR will use the templates developed at the EU level as well as the outcomes of the FLOODRISK project to develop its templates by the end of 2012 and to prepare flood hazard and flood risk maps by the end of 2013.
- Output n^o 1: ICPDR templates for flood risk mapping (2012);
- Output n° 2: Flood hazard and flood risk maps on the level A (2013).
- Output n° 3: Flood hazard and flood risk maps on the level A endorsed by the SG (2013).
 - \rightarrow Responsible: FP EG
 - \rightarrow Deadline: end 2013



The ICPDR maps are based on of the EU document "Reporting of spatial data for the Floods Directive (Part II); Guidance on reporting for flood risk and hazard maps of spatial information" and the templates and basic layout of the flood hazard map and flood risk maps were agreed by the FP EG of ICPDR. All countries were asked to provide the Secretariat with draft data before the 23rd FP EG meeting in March 2013. Draft data were received from AT, DE, BA, RO and SK and the Secretariat prepared the following maps for the FP EG discussion:

- (i) map of hazard and flooding scenarios;
- (ii) map on risk and population;
- (iii) map on risk and economic activity;
- (iv) map on risk and IPPC installations and
- (v) two maps on WFD protected areas. Technical details of these maps were discussed and a number of amending proposals were adopted.

The flood hazard areas are submitted via DanubeGIS as shape files in cooperation with the IMGIS EG. For preparation of risk maps the data are collected by the template developed by the Secretariat. Using the national text contributions to the Secretariat prepared the first draft of the Summary Report on implementation of Article 6 of the European Floods Directive in the Danube River Basin District.

The national deadlines for map preparation reported by a number of countries at the 23rd FP EG meeting and reconfirmed at the 24th FP EG meeting extend until the end of 2014. A draft version of the ICPDR flood hazard and risk maps was prepared for OM16 (Dec2013) to obtain a general agreement of the ICPDR with the layout of the maps. These draft maps and text report will be uploaded on the ICPDR web-site so that the countries reporting to the EC can use the web-link to the ICPDR report in their national re-ports to the EC. The collection of missing data will continue in 2014 to prepare an updated version for the 12th StWG meeting. After the adoption by the ICPDR the updated version will be uploaded to the ICPDR website.

DANUBE FLOODRISK project finished in October 2012. "Harmonized Manuel of Data & Methods"; "Harmonized Manuel of Maps" and the "Danube Flood Hazard and Risk Atlas" printed.

Output nº 1: Prepared and adopted by the ICPDR FP EG in March 2013.

Output nº 2: Due in Dec 2014.

Output n° 3: Due in first half of 2015.

Milestone n°3: Preparation of flood risk management plan for Non-Member States

• Work: Where an international river basin district, or unit of management referred to in Article 3(2)(b), extends beyond the boundaries of the Community, Member States shall endeavour to produce one single international flood risk management plan or a set of flood risk management plans coordinated at the level of the international river basin district. Those contracting parties to ICPDR being not EU Member states committed themselves to contribute to the Flood Risk Management Plan to be elaborated by EUSDR and ICPDR. In order to help coordinating this activity the following work need be done:

Preparation of projects proposals and provision of funding for the preparation of flood risk management plans for Danube Region areas of Non-Members States.



- Output n^o 1: Project generation (June 2013).
- *Output n^o* 2: Final flood risk management plan integrated into the respective flood risk management plan of the MSs (22 Dec 2015).

 \rightarrow Responsible: SG, FP EG

→ Deadline: June 2013 and 22 Dec 2015

Output n^o 1: "Common Hungarian-Ukrainian flood protection development programme on the Upper Tisza" has been developed and adopted by the plenipotentiaries in June 2013. Letter of Recommendation was issued by the 5th SG Meeting.

Output nº 2: Not relevant yet.

Milestone n°4: Preparation of flood risk management plan

• Work: On the basis of the maps referred to in EFD Article 6, Member States shall establish flood risk management plans coordinated at the level of the river basin district, or unit of management referred to in EFD Article 3(2)(b), for the areas identified under EFD Article 5(1) and the areas covered by Article 13(1)(b) in accordance with paragraphs 2 and 3 of EFD Article 7. Member States shall establish appropriate objectives for the management of flood risks for the areas identified under EFD Article 5(1) and the areas covered by EFD Article 13(1)(b), focusing on the reduction of potential adverse consequences of flooding for human health, the environment, cultural heritage and economic activity, and, if considered appropriate, on non-structural initiatives and/or on the reduction of the likelihood of flooding.

Flood risk management plans shall include measures for achieving the objectives established in accordance with paragraph 2 of EFD Article 7 and shall include the components set out in Part A of the Annex to EFD.

Flood risk management plans shall take into account relevant aspects such as costs and benefits, flood extent and flood conveyance routes and areas which have the potential to retain flood water, such as natural floodplains, the environmental objectives of Article 4 of Directive 2000/60/EC, soil and water management, spatial planning, land use, nature conservation, navigation and port infrastructure.

Flood risk management plans shall address all aspects of flood risk management focusing on prevention, protection, preparedness, including flood forecasts and early warning systems and taking into account the characteristics of the particular river basin or sub-basin. Flood risk management plans may also include the promotion of sustainable land use practices, improvement of water retention as well as the controlled flooding of certain areas in the case of a flood event.

The preparation of flood risk management plan for the Danube River Basin is a natural continuation of the implementation of the ICPDR Action Programme on Sustainable Flood Protection in the Danube River Basin. Flood risk management plan represents the next step after developing of flood action plans in sub-basins. The ICPDR will prepare a roof plan for the level A providing the general overview of the measures and highlighting the principles of international coordination in DRBD.

- Output no 1: Table of Contents of the flood risk management plan (end 2013);
- Output no 2: Draft flood risk management plan for public consultation (end 2014);
- Output no 3: Final flood risk management plan (end 2015).



- Output no 4: Flood risk management plan on the level A endorsed by the SG (2015).
 - \rightarrow *Responsible*: FP EG

→Deadline: 2015

Output n° 1: Table of Contents of the ICPDR Flood risk management plan drafted. The ICPDR discussed (Graz, 27-28 Sept 2012) the basin-wide goals of the flood risk management plan and agreed upon following goals:

- (i) Avoidance of new risks;
- (ii) Reduction of existing risks;
- (iii) Strengthening resilience;
- (iv) Raising awareness;
- (v) Solidarity principle. These goals will be linked with the respective measures. While the full list of measures will be provided at the national level, at the level of the international river basin district the focus should be given to the measures with the transboundary relevance.

The Secretariat prepared the table of contents of the ICPDR Flood Risk Management Plan 2015. The FP EG browsed through the table of contents line by line and suggested the necessary revisions. The Secretariat was asked to update the table of contents of the ICPDR FRMP 2015 accordingly and send it to the FP EG for a quick feedback before it was presented to OM16.

To have sufficient time for discussing the ICPDR Flood Risk Management Plan 2015 it was agreed to organize a workshop on this issue back-to-back to the next FP EG meeting.

In the document "Alignment of Funding – Operative programmes for EU SDR" Flood Management Plan plays a key role. It contributes to securing the additional financing needed by some of the partners for the Flood Management Plan in all levels during the 2014-2020 Multiannual Financial Framework.

Within the frame of "Flood survey" and of the Danube Region Enhanced Flood Management Plan PA5 has consulted over 60 representatives of 12 countries, including institutions of non-member states. Via these consultations PA5 drafted a document of flood management practices, planning methods in connection with flood risks on a river basin and sub-basin level, including tasks and practices of coordination, and the questions of financial tools. These findings were included into the DR Enhanced Flood Management Plan which is currently under adoption by the SG.

Output no 2 - 5: Not relevant yet.



Action 2 - "To support wetland and floodplain restoration as an effective mean of enhancing flood protection, and more generally to analyse and identify the best response to flood risk (including "green infrastructure")". Taking into account the new challenges brought by the effects of the climate change is clear that continue to use the same approach of only building levees alongside the river in order to keep the high level water inside will no longer work or will become a bigger threat to humans. Therefore we have to think to give back some of the floodplains and to leave more "room for rivers". This new approach will be good both for reducing the flood risk and for improving aquatic environmental conditions.

Milestone n°1: Successful implementation of the Morava-Thaya Basin initiatives

- Work: Protection of the 'Donau March-Thaya-Auen' wetland leading to the lowering of flood risks in the flooding areas and to the improvement of urban water courses.
- Output n^o 1: Development of a plan and a strategy for promoting environmentally benign, soft, quality tourism, including leisure navigation.
 - → Responsible: Austria, Czech Republic and Slovakia

 \rightarrow Deadline: December 2013

Output n^o 1: In progress. The most important objectives are the redynamisation, the reestablishment of the characteristic island landscape and the improvement of the connectivity between river floodplains in the confluence area of the Morava floodplains. At the moment we are in the planning phase. A planer was nominated in September 2012 and produced first drafts of revitalization maps and measures. An intensive coordination process with the relevant authorities is on-going.

Implementation of an innovative grassland management by reintroducing grazers (e.g. Konik horses) in the WWF floodplain reserve near Marchegg is under preparation.

Specific measures for the preservation of characteristic and highly endangered habitats and species (e.g. Storks, Kites, Eagles and Common Tern (Sterna hirundo) are already implemented.

A new breeding raft was introduced in a lake near Zwerndorf. The river Tern (Sterna hirundo) are using the the old as well as the new breeding raft at Zwendorf very well. Due to the cool and very different weather conditions this spring, the young birds have very different age distribution. In total 8 young birds and another 8 breeding birds breeding adult birds were counted. A great success and a new record at the site Zwerndorf!

PA5 monitored the implementation of the Morava-Thaya Basin with an EUSDR label. It was awarded due to the cross-cutting nature of the initiative: to contribute to the protection of the 'Donau March-Thaya-Auen' wetland also leading to the lowering of flood risks in the flooding areas and to the improvement of urban water courses.

<u>Milestone n°2</u>: Development of a Master Plan for the restoration of Floodplains of the Danube and its tributaries from spring to its discharge into the Black Sea



- Work: Assessment of the existing projects and identification of the future possible areas where the floodplain could be restored and evaluation of the benefits for flood control and improvement of the aquatic environment including the connection between the main bed with the floodplain.
- Output n° 1: Development of an application to be submitted for financing from the EU funds \rightarrow Responsible: ICPDR, Romania

 \rightarrow *Deadline*: 31 May 2013

Output n° 1: Project proposal partially addressing the task is prepared, financing is to be ensured (Lead Partners: Romania and WWF; most of the consortium partners identified). The project proposal received a TAF support.

• Output nº 2: Development of Master Plan

 \rightarrow Responsible: DRS countries

 \rightarrow Deadline: June 2015

Output nº 2: Not relevant yet

• Output n^o 3: Development of Master Plans for Large Tributaries

 \rightarrow Responsible: DRS countries

 \rightarrow Deadline: June 2021

Output nº 3: Not relevant yet

$\underline{\text{Milestone n°3}}$: Organisation of national and regional workshops concerning the Danube Floodplain restoration

- Work: Development of the documents and organization of the workshops with the involvement of all concerned stakeholders in order to present the local and regional benefits of the wetland restoration as well as the Danube Floodplain Master Plan concept.
- Output n^o 1: 10 national winners identified in each of the 14 ICPDR countries

→ Responsible: ICPDR, Romania and Danube countries involved

 \rightarrow Deadline: December 2013

Output nº 1:

PA5 had consulted WWF in connection with the Liberty Island project, in order to assure, that the outcomes of the project would be available for distribution in the frame of the Danube Floodplain project.

The project was presented on various forums of the EUSDR granting a high-level of visibility, which resulted in a growing political support.



Letter of recommendation was issued for the Danube Floodplain project. Romania's proposal was submitted for the 2nd call of DR TAF. PA10 awarded the DR TAF support to the project proposal.

Sediment project was handled jointly by PA4and PA5. Encouraging the project, a LoR was issued.

PA5 was involved in consulting the professional scientific consortium, in order to assure that the longitudinal continuity of the river bed as well as additional needs of the sectors using the Danube as a natural resource appears in the project. ICPDR was also consulted as a supporter of the project.



Action 3 - "To extend the coverage of the European Floods Awareness System (EFAS) system to the whole Danube river basin, to step up preparedness efforts at regional level (including better knowledge of each other's national systems) and to further promote joint responses to natural disasters and to flood events in particular, including early warning system."

Milestone n°. 1:

- Work: Establishment of the three operational EFAS centres for hydrological data collection, computation, and dissemination of EFAS information as part of the initial operational of GMES Emergency Management Service, which has entered its Initial Operation (GIO) phase following Regulation (EU) n°911/2010 of 22 September 2010 on "The European Parliament and the Council on the European Earth monitoring programme (GMES) and its initial operations (2011 to 2013)".
- Output: The winners of the public tenders for i) EFAS computation centre (European Centre for Medium Range Weather Forecasts), ii) EFAS dissemination centre (Consortium of Swedish Meteorological Hydrological Institute, the Dutch Rijkswaterstaat and the Slovak Hydrometeorological Institute) and iii) EFAS hydrological data collection centre (Consortium of the Andalusia Environment and Water Agency, and the Spanish private company ELIMCO Sistemas) will be setting up and establishing the EFAS operational centres according to specific contracts issued by the JRC.

 \rightarrow *Responsible*: JRC;

→Deadline: End of August 2012

Done. Following a kick off meeting with all three centres in January 2012, the three centres were awarded contracts to start establishing the operational centres. This task was concluded for the computational centre in September, for the dissemination centre in October and the hydrological data collection centre in November. Meteorological data collection applications are continued to be onsite the JRC but by external contracts.

Milestone n°. 2:

- Work: Operational running of EFAS at the operational centres mentioned in Milestone 1
- Output: EFAS running operationally at each centre as a 7/365 service producing probabilistic early flood forecasting information twice daily which will be distributed daily to the EFAS Danube partners via a username and password protected website and daily summary updates on the flood situation in Europe to the Monitoring and Information Centre (MIC), the operational heart of the Community Mechanism for Civil Protection in Europe to assist aid management during trans-national flood crisis in the Danube river basin.

 \rightarrow *Responsible*: JRC;

→ Deadline: ending of GIO ERS in 2013 (initially, further continuation under discussion)

A full operational EFAS is running in all three centres since autumn 2012. The service is monitored by the JRC and a shadow system is maintained by the JRC for a minimum period of 6 months. Further development and adaptation of the system to end-user needs are being prepared by JRC. The first EFAS annual meetings since fully operation was held in April 2013 in



Bratislava with a high participation of Danube partners.

The new developments of EFAS include an improved meteorological dataset for model calibration and model climatology, new hydrologic model calibration (more calibration points on the Danube), updating the EFAS thresholds and improved initial conditions (water balance) for the flood forecasts (based on the new calibration and higher density near real time meteorological stations).

Further the improved EFAS web interface includes now the visualization of initial conditions and anomalies.

Milestone n°. 3:

- *Work*: Following the changes in the operation of EFAS (See Milestone No 1) contact all partners to modify the partnership agreement and contact the remaining hydro/meteorological services responsible for flood forecasting to become a new partner (incl. Bosnia and Herzegovina as one of the last regions of the Danube to become EFAS partner)
- Output: Modified conditions of access for all EFAS partners and increase of EFAS partners

 \rightarrow Responsible: JRC; \rightarrow Deadline: 31/12/13

All 14 partners are approached to renew the conditions of access because of the new operational setup (See Milestone n^o.1). Contacts to the corresponding authorities in Bosnia-Herzegovina have been established via a project to build up national flood early warning systems in the Balkan countries which is lead by the German Society of international cooperation (Gesellschaft fuer internationale Zusammenarbeit GIZ). All cooperating partners of this project (Macedonia, Albania and Bosnia-Herzegovina) have agreed to become EFAS partners.

Nine Danube river basin countries have signed the new EFAS conditions of access which was necessary due to the transfer of EFAS into the fully operational phase (BG, CR, CZ, DE (BW), HU, RO, SR, SK and SI). Austria, Moldova, Germany (Federal Institute of Hydrology) and Ukraine are currently in the process of signing the agreement. Contacts to the corresponding authorities in Bosnia-Herzegovina as well as Montenegro have been established.

Milestone n°. 4:

- *Work*: Annual training on EFAS, its methodologies, concepts, products and results for EFAS Danube partners
- Output: 1-2 day information day on EFAS for all partner organisations

 \rightarrow *Responsible*: JRC;

→ Deadline: August 2012 & August 2013

Information and training on EFAS was given at the 7th annual EFAS meeting in Norrkoping, Sweden (12-13 June 2012), as well as at the 8th annual EFAS meeting in Bratislava, Slovakia (24-25 April 2013) including also the Danube partners. Furthermore, in the preparation of the operational EFAS centres a dedicated training was given to the Slovak Hydrometeorological Institute, which forms part of the EFAS Dissemination consortium, in 2012 at the JRC.



Milestone n°. 5:

• Work: Bi-monthly bulletins distributed to all EFAS partners providing a summary of on-going work, hydro-meteorological situation and description of case studies with special focus on Danube case studies if appropriate

• *Output*: Bi-monthly bulletins

 \rightarrow *Responsible*: JRC;

→Deadline: regular bi-monthly

In the EFAS Bulletin for October – November 2012 the flood in the Drava, which mainly affected Austria and Slovenia, was analysed.

Done: The bi-monthly EFAS bulletins are freely available on http://www.efas.eu/efas-bulletins.html.

Milestone n°. 6:

• Work: Specific ICPDR training workshop on EFAS, its methodologies, concepts, products and results

• Output: 1/2 day information day on EFAS for ICPDR partners

 \rightarrow *Responsible*: JRC;

 \rightarrow December 2014

A $\frac{1}{2}$ - 1 day training specific to EFAS is envisaged during one of the next ICPDR meetings. The training would cover background information on EFAS and illustrate the interface that has been developed.

Milestone n°. 7:

• Work: Find financing possibilities for EFAS beyond 2013

• Output: Budget for the operation of EFAS beyond 2013

 \rightarrow Responsible: JRC; PA5 coordinators

 \rightarrow Deadline: June 2013

Done. The European Commission has foreseen budget to continue the initial operations of GMES/COPERNICUS including an operational EFAS. Once the multi-annual financial framework of the European Commission which includes the GMES/COPERNICUS budget has been approved the funding of EFAS will be established.



Milestone n°. 8:

- Work: Early warnings for flash flood like events by using high resolution weather forecasts for the Danube river basin.
 - Further scientific definition, and development of the currently existing method in EFAS (mid 2014);
 - Expansion of the updated monitoring and warning system for the whole Danube Region (end 2014)
- Output: Flash flood early warning system. Monitoring network and data dissemination system.

→ Responsible: SG, the Flood Protection Expert group of the ICPDR, JRC

 \rightarrow *Deadline*: 2014

A flash flood early warning component has been developed by the JRC and on request of the EFAS partners is now fully integrated into EFAS. It is an extreme forecasting index for severe precipitation events that have a potential to lead to flash floods. Further information can be found here: A European precipitation index for extreme rain-storm and flash flood early warning, L. Alfieri, J. Thielen, DOI: 10.1002/met.1328

Flash flood warnings are sent out based on this indicator to all EFAS partners including the Danube region.

Currently work is ongoing to improve this flash flood warning by including outputs from EFAS such as state of the soil moisture (as this is an essential variable whether an extreme precipitation turns into an actual flash flood or not) and by incorporating information on the landslide susceptibility in the affected areas.

The Common Hungarian-Ukrainian flood protection development programme on the Upper Tisza also addresses the flash flood problems by introducing new, high resolution meteorlogical radar station in the region.



Action 4 – "To strengthen operational cooperation among emergency response authorities in the Danube countries and to improve the interoperability of the available assets"

- For risks that are common to an important number of countries in the region (i.e. floods and risks of other natural and man-made disasters listed in the action plan), it is important to strengthen cross-border cooperation and to ensure that civil protection authorities have a good understanding of each other's systems, available assets and potential gaps, working procedures, and that teams can also function smoothly in case of major emergencies involving bilateral, European, or international response. The development and use of common guidelines/procedures for risk mapping and assessment, early warning message and emergency response should also be considered. It is also important to address development of capacity for surveillance and response to Public Health Emergencies of International concern as well as to health threats of cross-border relevance. This issue is one of the requirements under the provisions of the new International Regulations.

The preparation of Action 4 is done partially by the ongoing SEERISK project. SEERISK is a transnational project funded by the South East Europe Transnational Cooperation Programme. The project team comprises 20 project partners representing 9 countries, namely Austria, Slovakia, Hungary, Croatia, Serbia, Romania, Bulgaria, Slovenia and Bosnia and Herzegovina. The consortium is coordinated by the National Directorate General for Disaster Management (NDGDM) from Hungary as Lead Partner.

As a general trend the frequency and damage caused by extreme climatic events is increasing due to climate change. Even though climate change affects countries, territories and localities differently, there are common and typical challenges in the South East European region. Project SEERISK takes into account specific risks and horizontal challenges as well. The countries involved are territorially coherent: the project concentrates on the Middle and Lower Danube Basin, where a wide range of risk types occur. There are localities where flash flood is the predominant risk factor whereas in other project territories, unforeseeable thunderstorms cause serious damages or frequent draughts cause damage to agriculture. Low level of awareness, week preparedness, institutional gaps and weak territorial planning are common, horizontal challenges in the region that the project intends to face with.

The results of the project so far include:

- Identification of types of risk in the region,
- Development of a common methodology to evaluate risks,
- Development of risk maps,
- Application of methodology to two pilot areas ("Wind induced risks in Siófok" and "Heat wave in Arad") and
- Survey of social awareness.

Based on these interim results a

- Guideline on Climate Adaptation and Risk Evaluation and
- Common Communication Strategy for Emergency Situations

will be prepared.

Last but not least a joint Emergency Simulation Filed Training will be held.

The results of the SEERISK project will be built into the PA5 Action 4.



The Road Map for Action 4 was presented at the 6th and 7th SG Meetings in Dec 2013 and March 2014. Roadmap is elaborated and it is in the process of approval by the Steering Group. The approval of the Road Map is done by electronic communication.

In the document "Alignment of Funding – Operative programmes for EUSDR" it appears as a key topic.

Task 1: Harmonisation of the regional disaster risk assessment methods and measures, taking into account the specific effects of climate change to the region, for better disaster prevention.

Milestone n°1:

- Work: Harmonization of preventive disaster risk evaluation method and tools (especially risk assessment and risk mapping), taking into account local specificities and data availability of the national, regional and local levels affected by the changing climatic events.
- Output nº 1: A common risk assessment methodology for the region developed and yearly updated. Results of projects like the LABEL, OderRegio, SEERISK and RomPHARE should be considered and leveraged on as well as the efforts of the European Commission together with member states on the methodology due to obligation resulting from article 5 of the new Union civil protection mechanism. The common risk assessment methodology should be conforming to the EU provisions.
 - → Responsible: SG → Deadline: 2016
- Output n^o 2: Develop best practices in the usage of GIS applications for risk mapping in case of extreme weather related hazards.
 - → Responsible: SG→ Deadline: 2015
- Output n^o 3: Commonly set standards for risk mapping developed regarding the specific climate and/or extreme weather phenomena.

→ Responsible: SG→ Deadline: 2018

Output n^o 1: A manual was prepared for harmonized methods of climate related risk assessment for civil protection authorities and local governments. It covers preventive disaster risk evaluation method and tools (especially risk assessment and risk mapping), taking into account local specificities and data availability of the national, regional and local levels affected by the changing climatic events.

An initial network of affected administrative, scientific and local government institutions was established and a common risk assessment methodology has been developed in Autumn 2013 within the framework of the SEE program financed SEERISK project. The methodology has been developed with the cooperation of municipalities, disaster management and research institutions from 9 countries (Austria, Slovakia, Hungary, Croatia, Serbia, Romania, Bulgaria, Slovenia and Bosnia and Herzegovina). The methodology can be further updated and shared amongst stakeholders of the DRS.

Output n^o 2: A GIS Best practices guideline is being developed until March 2014 within the framework of the SEE program financed SEERISK project (see above). The guideline can be further developed and shared amongst stakeholders of the DRS.



Milestone n°2:

- Work: Establishment of the comparability of data/information systems about extreme climatic
 events in order to facilitate its exchange according to a commonly understood standard (i.e. the
 metric and the format of the hazard/disaster/impact of past events has to harmonized to ensure
 comparability; common data standard should be developed as well for comparable
 likelihood/probability values.)
- *Output:* data/information sharing system and standards agreed and established in the Danube Region.

→ Responsible: SG→ Deadline: 2018

Output n^o 1: Work towards the establishment of the comparability of data/information systems about extreme climatic events in order to facilitate its exchange according to a commonly understood standard is further facilitated in cooperation with the JRC coordinated DRS Nexus and within the framework of the scientific cooperation with academic and research institutions of the region. In this framework among others an adaptable model of standardized climate data was discussed at the Pillar2 Scientific Stakeholder Conference on EUSDR macroregional water management with EUSDR stakeholders.

Milestone n°3:

- *Work*: Enhancement of the research and innovation taking into account the regional specificities of climate change and the usability of the scientific material in specific adaptation measures.
- *Output:* establishment of a regional research working group for sharing the best research practices and determine its possible adaptation to disaster prevention measures.

→ Responsible: SG→ Deadline: 2018

Milestone n°4:

- Work: Development of a training module on the effects of climate change for disaster management experts and operational staff intervening in emergencies.
- Output nº 1: A training module and curricula agreed and developed amongst the DRS Member States.

→ Responsible: SG→ Deadline: 2017

• Output n^o 2: min. 120 regional experts jointly trained per two years on the effects of climate change to disaster management interventions.

→ Responsible: SG→ Deadline: 2018

Output n^o 1: Development of a training module on the effects of climate change for disaster management experts and operational staff intervening in emergencies is being planned within the PA5 building on the SEERISK project and consultations with DG ECHO.



Task 2: Build harmonised training and capacity of the flood rescue teams and civil protection operative units

Milestone no 1:

- Work: Harmonised training and capacity building of the flood rescue teams and civil protection
 units (volunteer and professional) in the Danube region. Enhancement of the interoperability of
 the assets and units to be deployed in case of flooding, extreme weather events and man-made
 disasters.
- Output n^0 1: regularly (1 per year) organised trainings for the professional and volunteer rescue teams of the region.

→ Responsible: SG → Deadline: 2018

• Output n^o 2: regularly organised (2 per year) exercises for the professional and volunteer rescue teams of the regional countries.

→ Responsible: SG→ Deadline: 2018

• Output n^o 3: Establishment of an inventory on flood rescue and civil protection assets and capacities.

→ Responsible: SG→ Deadline: 2018

• Output n^o 4: Development of common guidelines and procedures on bilateral, macroregional, European or international cooperation regarding flood rescue and civil protection assets and capacities in a harmonized framework with the EU civil protection mechanism

→ Responsible: SG→ Deadline: 2018

Output n^o 1: In 2013 NDGDM has developed a national qualification system for volunteer and professional rescue teams, including yearly exercises. The qualification system can be shared with the DRS member states and the flood rescue related exercises can be organized on a regional scale.

Task 3: Establishment of the cooperation forum of the Danube basin municipalities and/or relevant institutions for better preparedness, awareness and data sharing during flood related interventions and other regional disasters.

Milestone n°1:

- *Work*: Establishment of the operational management of the forum.
- Output: operational management of the forum established with delegated contact points per country.

→ Responsible: SG → Deadline: 2020



Milestone n°2:

- *Work*: Awareness raising and sharing the experiences on the involvement of the population into the preparations for disasters (especially flooding) and the practices of the recovery measures.
- Output n° 1: Best practice guideline, module and curriculum established for the training of trainers.

→ Responsible: SG→ Deadline: 2020

• Output n^o 2: Analysis prepared on the preparedness of the inhabitants versus the risk exposure based on risk mapping of the localities.

→ Responsible: SG → Deadline: 2020

Output n^o 1: In progress. A regionally adaptable public awareness survey for measuring the preparedness of the population to the climate related risks has been developed in Autumn 2013 within the framework of the SEE program financed SEERISK project (see above). The analysis can be prepared on the basis of this awareness survey and the risk maps prepared for the same territory.

The "Guideline on climate change adaptation and risk assessment" was published.



Action 5 - "To continuously update the existing database of accident risk spots (ARS Inventory), contaminated sites and sites used for the storage of dangerous substances" – this requires to work with the institutions/organisations concerned to reduce the risk to minimum levels and should include harmonisation of safety standards, increased awareness and capacity in accident response and joint crisis management.

Milestone n°1: ICPDR Accident Risk Spot Inventories

• Work: Preparation of templates for the inventories of ARS, collection of information and data and provide support for the data collection at the national level, especially for non-EU MS

• Output n° 1: ARS inventories available for all Danube countries

 \rightarrow Responsible: APC EG

 \rightarrow Deadline: end 2014

Project: Integration of ARS inventories in the GIS systems and ICPDR databases

• Output n° 2: databases on ARS inventories

 \rightarrow Funding: EU, CPs

 \rightarrow Responsible: APC EG, IMGIS EG

 \rightarrow *Deadline*: end 2014

Output n° 1: In progress. Five countries have already sent the inventories

The first ARS inventories are expected to be available till summer 2014, the analysis is planned to be conducted in autumn 2014.

In the document "ALIGNMENT OF FUNDING – Operative programmes for EUSDR" bottlenecks of the implementation had been addressed.

Output nº 2: Not relevant yet

Milestone n°2: ICPDR Accident Risk Spot Maps

- Work: The general objective is to produce ARS maps, to illustrate the risk associated with the sites posing a risk in the DRB, and assess progress in the implementation of preventive measures addressing accidental pollution in the basin.
- Output n^o 1: Maps of ARS in the Danube Basin.

 \rightarrow Responsible: APC EG, IMGIS EG

 \rightarrow Deadline: end 2014

Output nº 1: The possibility of preparation of basin-wide ARS maps as well as the related statistical assessments has been discussed at the APC EG meeting in March 2014.



Milestone n°3: ICPDR Guidelines and good practices for Tailing Management Facilities

• Work: There is evidence and understanding that environmental degradation of transboundary watercourses has occurred on numerous occasions as a result of (TMF) failures. As risks are posed by Tailing Management Facilities (TMFs) in all categories (active, inactive, neglected, temporarily closed; and abandoned) there is particular concern regarding the large number of neglected, abandoned or orphaned TMFs where active monitoring or maintenance is not undertaken. The integration of risk reduction of mining accidents in the ICPDR Accidental Risk Prevention policy in line with the EU legislation, especially the Management of Waste from Extractive Industries (2006/21/EC Directive) will be achieved through the preparation of a guidelines and set of good practices for TMF.

• Output n^o 1: Guidelines and good practices for Tailing Management Facilities.

 \rightarrow Responsible: APC EG, PM EG

 \rightarrow Deadline: end 2014

Output n° 1: A UNECE guidance for tailing management facilities is available which was discussed and amended by the APC EG.

The actual status of the guidelines and the next steps to be taken has been discussed at the APC EG meeting in March 2014.



Action 6 - "To develop rapid response procedures and plans in case of industrial accidental river pollution"

Milestone n°1: AEWS system upgrade and refining

• Work: Rebuilding the AEWS system using then open-source software framework Drupal. Using open-source software will eliminate the risk of dependency from specific software companies and provide increased flexibility to adapt the system to future needs. Migrating new system to the new ICPDR virtual server to have a stable platform and minimize maintenance costs.

- Output n^o 1: Danube AEWS based on an open-source software platform (2012);
- Output n^o 2: Upgrade of AEWS design improving its applicability (2013).

 \rightarrow Responsible: APC EG

 \rightarrow Deadline: end 2013

Output no 1: The AEWS 2.0 has been developed and the ICPDR at its 15th Ordinary Meeting agreed with bringing it into full operation by 1 March 2013. The system is built on the open source software Drupal and mostly on available modules, no license costs are required. Backup communication is available in the event that the Internet does not work.

Output n° 2: The AEWS design has been upgraded. It includes among others (i) updatable reports (one report instead of a number of separate messages) which provide consolidated information on an incident and a good overview of changes in report revisions; (ii) one simplified form minimizing the risk of selecting a wrong form or incident; (iii) simplified navigation and better overview on home page; (iv) possibility of comments (using a simple text form) on reports by other PIACs. A quick reference sheet and system usage tutorials for AEWS 2.0 were prepared by the Secretariat and received very positive feedback from the APC EG.

Discussions are started with ICPDR expert groups and PA4 on potential further support to the operation on the AEWS by on-line monitoring and ICT based on the model developed under the framework of PA4.

Milestone n°2: Regular AEWS maintenance

• Work: The AEWS tests will be organized with a view of checking the performance of the Danube AEWS. The major attention will be given to checking the preparedness (response time) of the Communication Units of the national PIACs as the recent tests revealed weakness in this aspect. Two unannounced tests will be organized each year out of which one will be targeting 24/7 preparedness while the second test will be more technical, checking an overall management of an accident including assessment of the threshold levels and thus involving the Expert Units.

Every year during a meeting of the ICPDR AEWS experts a practical hands-on training on AEWS operation takes place, at which the Secretariat presents the AEWS system in detail, highlighting the frequently encountered problems and evaluating the performance of PIACs in the AEWS tests. The AEWS experts have then to disseminate the updated know-how on the system operation at the national level to the PIACs staff. To maintain high level of PIAC staff preparedness, organization of regular trainings on an annual basis will be continued.



- Output n° 1: Organization of regular performance tests of the Danube AEWS.
- Output n^o 2: Regular training of AEWS Operators.

 \rightarrow Responsible: APC EG

 \rightarrow Deadline: end 2015

Output n^o 1: The test took place on 21 January 2013 and was intended to prepare PIACs for the official launch of the upgraded system. The test was divided into five incidents in order to involve all PIACs. All PIACs participated actively in the test and were able to carry out their essential tasks during an accident. Some minor problems in use of the system during the test provided useful inputs for further optimization of the user interface. The updated system proved to be ready for use and was officially launched on 1 March 2013. The APC EG appreciated the new system considering it to be better than the previous AEWS and very con-venient for the purpose.

24/7 preparedness test was organized in November 2013. In March 2014 a comprehensive test was carried out simulating the case when a pollution plume in a river moves down-stream through the territory of several countries. Another training was organized at the 6th APC EG meeting in March 2014.

Output n^o 2: At the 5th APC EG meeting in April 2013 the Secretariat reviewed AEWS 2.0, presented the key features and demonstrated the system operation providing thus a basic regular training in the AEWS operation.

Milestone n°3: International standardization of AEWS

- Work: In the Danube River Basin there are numerous independent international activities addressing the emergency response (e.g., UN/ECE IAN, CECIS EC MIC, ICPDR AEWS, NATO Disaster Response, IAEA system for reporting on nuclear accidents in cooperation with EC IRIX - International Radiation Information Exchange and ECURIE - European Community Urgent Radiological Information Exchange). Running all these activities, in parallel, leads to overloading the staff at the national alarm centres (established usually under the Civil Protection / Ministry of Interior). To strengthen the operational cooperation between the emergency response authorities, the UNECE proposed to adopt common standards by all existing warning systems to ensure their full compatibility. It also should be made sure that there is only one point of contact in a given country. This approach would eliminate any potential confusion during an accident management and, at the later stage, it could avoid using of parallel overlapping systems by making them fully compatible & complementary so that triggering one system would be recognized by the others. The ICPDR has been invited by the UNECE to join this standardization process and mandated at its 8th StWG meeting the Secretariat to participate in the process of standardization in notification on chemical accidents upon request of UNECE with the view of maintaining the Danube AEWS as the key warning system in the DRB.
- Output nº 1: Danube AEWS based on an international Europe-wide standard.

 \rightarrow Responsible: APC EG

 \rightarrow Deadline: 2015 and beyond

Output n° 1: The APC EG asked the Secretariat to contact the EC to explore the ongoing strategies and plans concerning development of integrated warning systems at the EU level and possibilities of linking such systems with AEWS. The Secretariat met in July 2012 with the



Emergency Response Unit at DG ECHO to discuss the modalities of transferring AEWS information to DG ECHO MIC. It was suggested that such message sent to MIC by the Danube AEWS would be only considered as information about a major pollution accident and not as a formal request for assistance as this competence would stay with the national civil protection units. For MIC such message would serve as a pre-warning on potential future assistance needs in the affected region. The APC EG at its 4th meeting did not support this option of sending the AEWS message to MIC because PIACs in some countries have no authorization at the national level to inform MIC.

The ICPDR wrote a letter to the UNECE expressing its willingness to join the standardization process proposed by the UNECE aiming at adoption of common standards by all existing warning systems to ensure their full compatibility.

Complementary actions for the civil protection cooperation and flood rescue are done within the framework of Action 4 in consultation and cooperation with operative civil protection authorities and DG ECHO.



Action 7 - "Anticipate regional and local impacts of climate change through research" Initiatives in this research field should address specific concerns in the Danube Region. Research projects on the impacts of climate change on infrastructure, health, food security and the environment should be initiated. Furthermore, the international scientific cooperation in this field should be supported, while ensuring close coordination with overall action at EU level. A preparatory action "Climate of the Carpathian Basin" will be launched before the end of 2010. This action will contribute to regional climate variability and change studies, and applied climatology. It will also encompass an analysis of the vulnerability of water and ecosystems of the region to climate change impacts and other man-made pressures and on identifying potential adaptation measures, focusing on adaptive water management and ecosystem-based approaches. This work should be used at basin level.

Milestone n°1: Danube Climate Adaptation Study

- Work: Preparation of a study, summarising and assessing all existing information relevant for the adaptation of the water sector to climate change
- Output n^o 1: Overview and assessment of latest available information as a basis for the development of the Danube Climate Change Adaptation Strategy
 - \rightarrow *Funding*: Germany
 - \rightarrow Responsible: Germany in the frame of the ICPDR
 - → *Deadline*: January 2012 (accomplished); study can be downloaded from the following link: http://www.icpdr.org/icpdr-pages/climate_adaptation_study.htm

Output no 1: The Study has been finalised in January 2012 and is available, together with the Annex on the ICPDR website: http://www.icpdr.org/icpdr-pages/climate_adaptation_study.htm

Milestone n°2: Danube Climate Adaptation Workshop

- Work: Organisation and accomplishment of the workshop with participation of representatives from Danube countries and different water-related sectors and NGOs
- Output n^o 1: Dissemination and discussion of the Danube Climate Adaptation Study towards the creation of a common understanding on expected climate change impacts on the water sectors in the Danube River Basin and discussion on adaptation needs
 - → Responsible: Germany in the frame of the ICPDR
 - → Deadline: March 2012 (accomplished); related documents and presentations can be obtained following the link: http://www.icpdr.org/pls/danubis/danubis.wwv_main.main?p_siteid=1&p_cornerid=94648

Output no 1: The Workshop was organised on 29-30 March 2012 in Munich.



Milestone n°3: Danube Climate Adaptation Strategy

- Work: Further exchange and discussions towards the finalisation of the Danube Climate Adaptation Strategy based on input from the Danube Climate Adaptation Study, respective discussions at the workshop and the different expert bodies of the ICPDR during 2012
- Output n^o 1: Finalised Danube Climate Adaptation Strategy
 - → Responsible: Germany in the frame of the ICPDR
 - → Deadline: December 2012

Output no 1: The Danube Climate Adaptation Strategy has been finalised and was adopted at the 15th Ordinary Meeting of the ICPDR on 11-12 December 2012 in Vienna. The Adaptation Strategy is available for download on the ICPDR website: http://www.icpdr.org/icpdr-pages/climate adaptation study.htm

Milestone n°4: Check the Danube Climate Adaptation Strategy for completeness

- Work: Check the Danube Climate Adaptation Strategy to see if further topics need be covered
- Output n° 1: Gap analysis \rightarrow Responsible: ICPDR
 - → *Deadline:* Completed

Output no 1: In chapter 8.2 of the Danube Climate Adaptation Strategy, knowledge gaps and further research requirements were identified.

Milestone n°5: Revision and update of the Danube Climate Adaptation Strategy

- Work: In line with the step-wise and cyclic approach for the implementation of the WFD and EFD, it is proposed to check the need to update and revise the ICPDR Strategy on Adaptation to Climate Change. This should take into account updated information regarding the knowledge base on climate change and adaptation, in particular on climate change scenarios and water-related impacts in the Danube River Basin, and allow to take the results into account for the planning process of the 3rd DRBM Plan and the 2nd DFRM Plan, due by 2021.
- Output n^o 1: Updated and revised Danube Climate Adaptation Strategy
 → Responsible: ICPDR
 - 1
 - \rightarrow Deadline: 2018

Output no 1: Within the Danube Region Enhanced Flood Management Plan preparing for the more and more frequently appearing events connected to climate change – such as flash floods, fast flowing floods – are emphasized. With the help of complex weather models previously designed flood levels could be reconsidered. Choosing the sub-basin area of Tisza as a pilot area, design flood level had already been reviewed.



Several consultations were organized between PA5 and PA4 about the effects of climate change on the operation of water utilities.

Connecting the nexuses of JRC's database, PA5 is constantly making efforts in order to refine the currently available spatial data of the climate change.

Hazard risk maps were designed about the possibilities of climate change adaption on the level of the whole region and on the level of the municipalities of the region as well.

Taking the KárpátClim project as a model, DanubeClim project had been launched implementing and continuing the tasks and methods, setting the goal of forming a common database collecting processed meteorological data from the last 30 years on a pilot area.



Action 8 – "To develop spatial planning and construction activities in the context of climate change and increased threats of floods". Flood prevention activities imply the cooperation of national, regional and local authorities in terms of land-use and physical planning. Spatial Data Infrastructure for the Danube Region needs to be developed through increased cooperation, coordination and data exchange, as required under the INSPIRE Directive. Adequate land-use needs to be identified and agreed in an integrated way, and priority actions such as the promotion of sound forest and pasture management, the minimising of plough lands on the slopes of hills or the protection of biodiversity and restoration of ecosystems and natural river courses need to be taken across the Danube Basin area. Urban and housing development need to take account of climate change factors. Cities and towns in the Basin should be encouraged to share experience and best practice in this field.

Milestone n°1: Exploring areas stricken by droughts and water shortage, problem management in the Danube region

• Work:

- a) Exploring areas stricken by droughts and water shortage, and classifying them into clusters taking into account of the impacts of climate changes (spatial characteristic of the exposure and sensitivity to climate change)
- b) Developing special actions for each cluster to manage problems caused by droughts and water shortage
- c) Assessment of the spatial characteristic of the adaptive capacity and adaptation options for each cluster
- d) Elaborating integrated professional principles for transboundary regions
- e) Preparing action plan
- f) Preparing intervention plans
- g) Implementing interventions
- Output n^o 1: Executing intervention plans
 - \rightarrow Responsible: SG
 - \rightarrow *Deadline*: 2015 for Works a.)-f.)

end of 2020 for Work g.) (depending on Work f.))

Output no 1: In line with the agreed PA5 Target: "To address the challenges of water scarcity and droughts based on the 2013 update of the Danube Basin Analysis and the ongoing work in the field of climate adaptation, in the Danube River Basin Management Plan to be adopted by 2015", work is ongoing in the frame of the ICPDR on the issue of water scarcity and drought. A questionnaire on the issue was developed and feedback provided by the Danube countries, to be discussed at the 37th RBM EG Meeting on 9-10 May 2013 in Sarajevo. Based on the results of the discussions, relevant steps will be taken to address the issue in the 2013 Update of the Danube Basin Analysis and the 2nd Danube River Basin Management Plan by 2015. In case measures are foreseen and agreed by the Danube countries to address water scarcity and drought, they are planned to be incorporated in the Joint Programme of Measures of the 2nd Danube River Basin Management Plan.

Elements of scientific models to be used in this framework based on land use, use of economic measures and policy responses to climate change were addressed at the EUSDR Macroregional Water Management conference. There is an ongoing effort together with JRC to



provide a sub-basin wide model for drought management.

In the document "Alignment of Funding" the drought management was identified as a significant issue for coordination for those sub-basins affected by severe droughts.

Milestone n°2: Measurement of land use aspects (forestry, agricultural and land cover related land uses etc.) of protection against flood, and developing recommendations for the application of land use aspects in flood risk management plans.

- Work: Evaluating and comparing the land use of the flood prone area and land cover changes due to climate change; evaluating the land use of the regions exposed to flash floods taking into account the climate change impact; developing model recommendations on land use changes, integration into flood risk management plans.
- Output n^o 1: land use maps (current status and planned land use); flood risk management plans

 \rightarrow Responsible: SG

 \rightarrow *Deadline:* 2017

Output no 1: Not relevant as yet.

Milestone n°3: Development of spatial planning research program and methodology for the sake of harmful effects mitigation of climate change

- Work: Laying down principles; underlying R&D (spatial vulnerability assessment, spatial characteristic of mitigation capacity); delimitation of special areas (zones) regarding climate change sensitivity and vulnerability; developing spatial planning and regulation directives; action plan
- Output n^o 1: spatial planning and regulation directives; action plans

 \rightarrow Responsible: SG

 \rightarrow *Deadline*: 2018

Output no 1: Not relevant as yet.

Milestone n°4: Principles of climate-friendly city structure and integration of climate-aware architecture solutions in the regulation of different sectors

- Work: R&D for understanding the maturation and dynamism of 'urban heat islands'; erection of urban energy cycle model; elaborating planning and regulation directives for reduce heat-load; working out standard regulation background in connection flood-safe building construction and preparation of buildings for water shortage; action plans;
- Output n^o 1: model of urban heat islands; planning directives for reducing heat-load; regulation \rightarrow Responsible: SG

 \rightarrow *Deadline*: 2021

Output no 1: Not relevant as yet



ANNEX 2 - PROJECTS APPROVED BY THE STEERING GROUP

Name of the project	Danube River Research And Management (DREAM) Programme	
Action related	PA5.02 To support wetland and floodplain restoration as an effective mean of enhancing flood protection, and more generally to analyse and identify the best response to flood risk (including "green infrastructure") See also PA4.01, PA4.02 and PA4.12	
Countries involved	Austria: University of Life Sciences, Vienna Slovakia: Slovak Academy of Sciences Slovakia: Water Research Institute Bratislava Hungary: University of Technology and Economics, Budapest Croatia: University of Osijek Serbia: University of Novi Sad Serbia: Jaroslav Cerni Institute Bulgaria: University of Ruse Romania: Technical University of Bucharest Romania: GeoEcoMar Czech Republic: University of Technology Brno Czech Republic: University of Life Sciences Prague	
Funding	EUR 69 600 000; Competitive bidding for transnational ans national financing sources	
Stage of implementation	Planned	
Description	There is an urgent need to integrate use and protection of the Danube River in a sustainable way. Research is of fundamental importance to derive monitoring strategies, modelling and engineering solutions to improve measures suited to reach a win-win situation between economic use and environmental protection of the Danube River. This will be strongly related to the Danube River Basin Management Plan.	
	The project DREAM will provide an umbrella and the infrastructure for a set of research topics. These topics are interconnected and cover several disciplines, from basic research, to be represented by advanced hydraulic labs and sophisticated 3D models on high computational technology, to applied research, providing field data to mitigate hydrological extremes and to improve existing situations in water regimes, sediment regime, flood risk, drought problems, revision of bioengineering measures, restoration of streams and flood plains,	



	etc.
Involvement of the PACs	Letter of recommendation issued
Next steps	The programme will be executed project by project. Each project will be developed and financed separately. Looking for financing possibilities.



Name of the project	Common Hungarian-Ukrainian flood protection development programme on the Upper Tisza	
Action related	PA5.08 To develop spatial planning and construction activities in the context of climate change and increased threats of floods See also: PA5.02, PA4.02 and PA4.12	
Countries involved	Upper-Tisza-regional Water Directorate - Hungary - already involved, Tisza River Basin Water Resources Directorate - Ukraine - already involved, Budapest Danube Contact Point — already involved, Upper-Tisza-regional Nature protection, Environment and Water Authority - Hungary - comitted to be involved, Hortobágy National Nature Park Directorate Hungary - comitted to be involved, Szabolcs-Szatmár-Bereg County Catastrophe Directorate - Hungary - comitted to be involved, Szabolcs-Szatmár-Bereg County Government Office - Hungary - comitted to be involved, State Department of Environmental Protection of Transarpathian Region - Ukraine - comitted to be involved, State Environmental Inspectorate of Transarpathian Region- Ukraine - comitted to be involved, State Emergencies Service of Ukraine in Transcarpathian region - Ukraine - comitted to be involved.	
Funding	NA NA	
Stage of implementation	Planned	
Description	The flood levels are gradually increasing; the flood protection system of Upper-Tisza need to be developed urgently at Hungarian and Ukrainian side as well. For establishment of this complex development common standard flood level has been determined and on both sides national programs have started. In Hungary "Development of Upper-Tisza-regional Flood Protection System" and "New Vásárhelyi Plan", in Ukraine "Complex flood protection program of the Tisza Transcarpathian basin for 2006-2015", results of which will be integrated into the present program. The project realization will reduce flood risks in the Upper Tisza basin (including Romania and Slovakia), greatly enhance cooperation at sub-basin level, methodology and good practice of which could be used as a model in other areas of the Danube basin, help finding a coordinated, long-term solution to problems that cannot be dealt with on national level alone, will resolve important issues related to the implementation of the Danube Strategy.	



Involvement of the PACs	Letter of recommendation issued
Next steps	The programme will be executed project by project. Each project will be developed and financed separately.



Name of the project	Climate of the Danube Region (DANCLIM)	
Action related	PA 5.08 To develop spatial planning and construction activities in the context of climate change and increased threats of floods	
Countries involved	Hydrometeorological and meteorological services and institutes of Czech Republic, Slovakia, Ukraine, Romania, Bulgaria, Serbia, Hungary, FXROM, Croatia, Slovenia, Austria, and Hungary, and the Szent István University	
Funding	NA NA	
Stage of implementation	Planned	
Description	Main aim of the project is to create a freely available, high resolution climatological gridded database for the Internet use. For this purpose, the owners of national climatological database will use the same methods for homogenisation, data quality control, harmonization and interpolation/gridding. To ensure the good density of stations, data rescue activity is required.	
Involvement of the PACs	Letter of recommendation issued	
Next steps	Project proposal developed. Consortium set up.	



Annex 3 - TA Progress Report



PROJECT TITLE:

EU STRATEGY FOR THE DANUBE REGION IMPLEMENTATION OF PRIORITY AREA N°5 ('To Manage Environmental Risks')

CCI N° 201CE160AT092

PROGRESS REPORT

Reported period: from 06/13 to 12/13



Summary of the project

Title: To facilitate the starting phase of the coordination of Priority Area 5 "management of the Environmental Risks" of the EU Strategy for the Danube Region

General objective: To facilitate a stable, effective, inclusive and innovative governance system for this Priority Area

Priority Area 5 deals with environmental risks like flood and drought, but also with manmade risks, issues which require funding to support the activities in the Danube Region Strategy (DRS). For the moment is clear that a way forward should be laid out. This is why the most important work is to develop and adopt roadmaps for each action

Specific objectives are:

- To support the Priority Area Coordinators in their coordination work;
- To encourage the involvement of key stakeholders;
- To assure the use of cutting edge international knowledge.

Governance:

The grant will assure the implementation of the following tasks:

- Coordination tasks:
 - = organization of Steering Group and Technical Meetings;
 - = participation at events organized in connection with the implementation of the Strategy;
 - = organization of stakeholder seminars in 2012, 2013 and 2014;
 - = involvement of external expertise;
 - = communication activities.
- **Technical Meetings** are to be organized between Priority Area Coordinators or with the Coordinators of the other two Priority Areas of Pillar II. Furthermore technical meetings shall be organized with the representatives of the International Commission for the Protection of the Danube River Secretariat.
- *Communication Activities* shall aim to provide general information of the Strategy and its implementation, as well as, specific information on Priority Area 5 to promote public awareness regarding the Strategy and the 5th Priority.

Duration of the project: 1 January 2012 to 31 December 2014

Activities planned and conducted:

Timetal	ble as agreed in the Grant Agreement	Key activities conducted
July	To provide general information of the	Participation on the "Annual
	Strategy and its implementation	Conference of the Hungarian
		Hydrological Society" (3 July,
		Gödöllő, Hungary); Presentation on
		the state of play in PA5
	Technical Meetings	Preparation of the "Danube Flood
		Survey" (discussion material; list of
		counter partners; letter of invitations;
		once every week; Budapest, Hungary)
	Technical Meetings	Meeting of the (Hungarian) EUSDR

Timetab	le as agreed in the Grant Agreement	Key activities conducted
		Inter-ministerial Committee (31 July,
		Budapest, Hungary)
	Technical Meetings	Preparatory meetings of the
		"Transboundary water issues in a
		macro-regional context" conference
		(once every week; Budapest,
		Hungary)
August	Technical Meetings	Meeting with the representatives of
		Czech flood protection, regional
		development and Government Office
		(To seek needs for enhancement of
		flood protection at basin level; 02
		August; Prague, Czech Republic)
	Technical Meetings	Preparatory meetings of the
		"Transboundary water issues in a
		macro-regional context" conference
		(once every week; Budapest,
		Hungary)
	Technical Meetings	Preparation of the "Danube Flood
		Survey" (discussion material; list of
		counter partners; letter of invitations;
		once every week; Budapest, Hungary)
September	To provide general information of the	International Conference and Annual
	Strategy and its implementation	Stakeholder Seminar on
		"Transboundary water issues in a
		macro-regional context: the Danube
		basin" (11-12 September, Budapest,
		Hungary)
	Technical Meetings	Preparation of the "Danube Flood
		Survey" (discussion material; list of
		counter partners; letter of invitations;
		once every week; Budapest, Hungary)
October	To provide general information of the	24 th ICPDR FP EG Meeting (03-04
	Strategy and its implementation	October; Bratislava, Slovakia)
	To provide general information of the	Budapest Water Summit (08-11
	Strategy and its implementation	October, Budapest, Hungary)
	Technical Meetings	Meeting with the representatives of
		Baden-Württenberg flood protection,
		Environmental Ministry and
		Government Office (To seek needs
		for enhancement of flood protection
		at basin level; 10 October; Stuttgart,
		Germany)

Timetab	ole as agreed in the Grant Agreement	Key activities conducted
	Technical Meetings	Meeting with the representatives of
		Bavarian flood protection and
		Government Office (To seek needs
		for enhancement of flood protection
		at basin level; 11 October; Munich,
		Germany)
	To provide general information of the	2 nd EUSDR Annual Forum (29-30
	Strategy and its implementation	October; Bucharest, Romania)
	Technical Meetings	Preparation of the "Danube Flood
		Survey" (discussion material; list of
		counter partners; letter of invitations;
		once every week; Budapest, Hungary)
	Technical Meeting	Preparation of the 6 th SG Meeting
		(once every week; Budapest,
		Hungary)
November	To provide general information of the	Cooperation Forum of the Danube
	Strategy and its implementation	Riparian Cities (07 November;
		Dunaújváros; Hungary)
	Technical Meeting	Meeting with the representatives of
		Austrian flood protection, Federal
		Ministry of Agriculture, Forestry,
		Environment and Water Management
		(To seek needs for enhancement of
		flood protection at basin level; 27
		November; Vienna, Austria)
	Technical Meetings	Preparation of the "Danube Flood
		Survey" (discussion material; list of
		counter partners; letter of invitations;
		once every week; Budapest, Hungary)
	Technical Meeting	Preparation of the 6 th SG Meeting
		(once every week; Budapest,
		Hungary)
December	Organization of Steering Group	6 th Steering Group Meeting (09
	Meetings	December Vienna, Austria)
	To provide general information of the	Participation at the ICPDR Ordinary
	Strategy and its implementation	Meeting (10-11 December, Vienna,
		Austria)

Besides the activities listed above the Hungarian PAC met the Hungarian NCP weekly. The Local Organizing Committee of the "Trans-boundary water issues in a macro-regional context: the Danube basin" Conference met every other week from June on.

How was the action carried out so far?

The TA project is there to facilitate the starting phase of the coordination of Priority Area 5. The implementation of the EUDRS in the area of PA 5 is going on smoothly.

- The Steering Group had its 6th Meeting in this reporting period.
- The major task for the SG was to execute, review and modify roadmaps for each of the Actions under PA5. Seven out of eight roadmaps have been finalized. The draft roadmap of the Action 5.4 was presented at the 6th SG Meeting. The SG Members requested a longer period (e.g. till mid-February) to discuss the draft Action 5.4 with the partner ministries. The 5th SG Meeting reviewed the progress made (See the details in Annex 1 of the Annual Report).
- The organisation of the "Trans-boundary water issues in a macro-regional context: the Danube basin" Conference started in the first half of year 2013. Due to the busy period of the key lecturers the original date (27-28 June) had to be modified and the Conference was shifted to 11-12 Sept 2013. In view of the June 2013 flood, PA5 focused on the flood management issues although drought was also at stake.
- The dissemination is progressing. Meeting with NGOs was organised on several occasions.
- Special cooperation with ICPDR was set up. The information exchange is smooth at the level of Heads of Delegations (we meet twice a year at the Standing Working Group and Ordinary Meeting of ICPDR) and Expert Groups too. The ICPDR is managing three of the PA5 Actions.
- After the Annual Forum there was a long discussion on how the cooperation between ICPDR and the EUSDR PA4 and PA5 should work. The conclusion was that a "Synergy" paper written by the Hungarian, Slovakian and Romanian NCP and the Executive Secretary of ICPDR will clarify the "modus vivendi".

How is the project going to meet the objectives of the budget heading?

- a.) Due to the voluntary dissolution of the company where Péter Bakonyi works for we were not able to nominate assistants. Thus no costs are charged against the "Personnel costs" budget line. We do hope that in 2013 this problem will be solved (it is solved in the second half of 2013).
- b.) During the first half of 2013 the TA contract was transferred from VITUKI to the Ministry of Foreign Affairs of Hungary.
- c.) From the Romanian side activities have been supported from the ministry's budget or the ongoing projects budgets and no money have been spent from the Technical Assistance budget. This was due to the changes occurred at the organizational level of the Ministry of Environment and Forests.
- d.) PA5 has organized two SG Meetings both in 2012 and 2013.
- e.) PA5 has organized with PA4 and PA6 an annual stakeholder seminar both in 2012 and 2013.
- f.) An external consultant was hired to develop a project idea on the improved data exchange for flood forecasting.

Please describe the transnational dimension of the project

The TA is there to help the PAC to manage the implementation of the EU Strategy for the Danube Region. The EUSDR is a regional programme and the PACs should, by definition, work in an international surroundings:

- The Steering Groups, managed by the PACs, are composed of the representatives of the 8 Member States and 6 Non-Member States, the representatives of the EU and that of the ICPRD.
- The targets and the actions are all of macro-regional range.
- The projects supporting the actions should also be international (the scope of the project should cover at least three countries).
- The PAC in his/her dissemination activities should reach all 14 Danube Region countries.

What contribution was made by the partners?

a.) Cooperation between the Romanian and Hungarian PACs

The cooperation between the PACs works smoothly. All tasks were executed jointly. Actions, presentations, reports, minutes etc. were discussed prior to the event and the agreed version was executed or presented. Hungarian partner got a lot of help from the Romanian side and also helped Romanian partner with technical (flood risk management) knowledge.

b.) Cooperation the SG Members

The work of the SG Members is mainly related to the SG Meetings. Their contribution is bringing in project proposals, helping the PACs in compiling list of stakeholders, evaluating project proposals for labelling, disseminating EUSDR information in their countries, reviewing the progress of the Actions etc.

Auto-evaluation so far

a.) Successes:

- The SG is up and working, the attendance increased a bit but further efforts needed
- Rules of Procedures adopted
- Joint Pillar II Labelling Procedure adopted
- No projects were given EUSDR Relevant label (no new projects were identified), but 3 Letter of Recommendations issued as follows:
 - Letters of Recommendation were issued to the projects
 - · Common HU-UA flood protection development Programme on the Upper Tisza
 - Danube River Research and Management (DREAM)
 - · Climate of the Danube Region (DANUBECLIM)
- Substantial progress made in many of the Actions (See Annex 1 of the Annual Report)
- The homepage is working

b.) Weaknesses:

- The activity of the SG Members is not high enough (paying some of the expenses of non-MS members helped)
- The participation on the SG Meetings is low (8, 6, 7, 4, 6 and 7 countries were represented on the first six meetings)
- Dissemination need be strengthened
- Homepage need be more informative
- Stakeholder involvement should be intensified.

Concrete outputs so far

Milestones reached so far:

• See the Annex 1 of the Annual Report

How was the action publicised and how have the results been disseminated so far?

We used the opportunities of conferences we got invitation to and personal contact as well. Conferences gave us the opportunity to meet

- Annual Conference of the Hungarian Hydrological Society,
- International Conference and Annual Stakeholder Seminar on "Transboundary water issues in a macro-regional context: the Danube basin",
- Budapest Water Summit,
- 2nd EUSDR Annual Forum,
- Cooperation Forum of the Danube Riparian Cities,
- ICPDR.

The cooperation with ICPDR is done at two levels. The PACs report on the progress of the EUSDR at the Standing Working Group Meeting of the ICPDR in June and also at the Ordinary Meeting in

December. This provides an opportunity to discuss EUSDR topics with the Head of Delegations of the 14 Danubian countries. More operative exchange of information is done at the level of the ICPDR's Expert Groups. Priority Area 5 has got a strong link to the work done in the Flood Protection Expert Group (FP EG), the Accident Prevention and Control Expert Group (APC EG) and the River Basin Management Expert Group (RBM EG). The PACs report to FP and RBM Expert Groups twice a year on their regular meetings. On the other hand two-three representatives of the ICPDR Secretariat from the three expert groups attend the SG Meeting and report back on the progress made in those Actions that are coordinated by ICPDR.

We also used the homepage to provide information to the public, but our feeling was that it was less effective (no feedback from the homepage).

What lessons have been learnt from this experience so far?

- a.) The lack of financing made people disappointed. This will create bad mood until financing is solved.
- b.) Communication need be strengthened to explain people that EUSDR is a macro-regional programme and it can only handle large macro-regional projects.
- c.) There is a need of strong political support to keep the momentum.

Are there any plans to improve the implementation and if so, how?

We get prepared for the next, 2014-2021, financial period by trying to generate project ideas that fit EUSDR and help the implementation. Further we also communicate with the OP programmers to represent the EUSDR in the next MFF. Romania will implement for the next two years another two projects related to Action 1, namely, "The prevention and protection against floods in the upper Siret and Prut River Basins, through the implementation of a modern monitoring system with automatic stations – EAST AVERT" and "Danube WATER integrated water management (WATER)".

We intend to collect project ideas that can be used for project development to start the next MFF.

Simona-Olimpia Negru PA5 Coordinator Péter Bakonyi PA5 Coordinator



PROJECT TITLE:

EU STRATEGY FOR THE DANUBE REGION IMPLEMENTATION OF PRIORITY AREA N°5 ('To Manage Environmental Risks')

CCI Nº 201CE160AT092

PROGRESS REPORT

Reported period: from 01/14 to 06/14

Summary of the project

Title: To facilitate the starting phase of the coordination of Priority Area 5 "management of the Environmental Risks" of the EU Strategy for the Danube Region

General objective: To facilitate a stable, effective, inclusive and innovative governance system for this Priority Area

Priority Area 5 deals with environmental risks like flood and drought, but also with manmade risks, issues which require funding to support the activities in the Danube Region Strategy (DRS). For the moment is clear that a way forward should be laid out. This is why the most important work is to develop and adopt roadmaps for each action

Specific objectives are:

- To support the Priority Area Coordinators in their coordination work;
- To encourage the involvement of key stakeholders;
- To assure the use of cutting edge international knowledge.

Governance:

The grant will assure the implementation of the following tasks:

- Coordination tasks:
 - organization of Steering Group and Technical Meetings;
 - participation at events organized in connection with the implementation of the Strategy;
 - organization of stakeholder seminars in 2012, 2013 and 2014;
 - involvement of external expertise;
 - communication activities.
- **Technical Meetings** are to be organized between Priority Area Coordinators or with the Coordinators of the other two Priority Areas of Pillar II. Furthermore technical meetings shall be organized with the representatives of the International Commission for the Protection of the Danube River Secretariat.
- *Communication Activities* shall aim to provide general information of the Strategy and its implementation, as well as, specific information on Priority Area 5 to promote public awareness regarding the Strategy and the 5th Priority.

Duration of the project: 1 January 2012 to 31 December 2014

Activities planned and conducted:

Timetab	ole as agreed in the Grant Agreement	Key activities conducted
January		
February	Technical Meeting	Flood Survey: Meeting with the representatives of Croatian flood protection, regional development, Ministry of Foreign and European Affairs, Ministry of Agriculture and National Protection and Rescue Directorate (To seek needs for enhancement of flood protection at basin level; 06 February; Zagreb,

		Croatia)
	Technical Meeting	Flood Survey: Meeting with the
		representatives of Slovenian flood
		protection, civil protection and
		Ministry of Agriculture and
		Environment (To seek needs for
		enhancement of flood protection at
		basin level; 06 February; Ljubljana,
		Slovenia)
	Technical Meeting	Flood Survey: Meeting with the
	reclinical wieeting	representatives of Slovakian flood
		_
		protection, Ministry of Environment
		and Government Office (To seek
		needs for enhancement of flood
		protection at basin level; 26
M1-	Traductal Markins	February; Bratislava, Slovakia)
March	Technical Meeting	Flood Survey: Meeting with the
		representatives of Serbian flood
		protection and European Integration
		Office (To seek needs for
		enhancement of flood protection at
		basin level; 05 March; Belgrade,
		Serbia)
	To provide general information of the	4th Meeting of National Contact
	Strategy and its implementation	Points and Priority Area Coordinators (11-12 March; Vienna, Austria)
	Technical Meeting	Flood Survey: Meeting with the
		representatives of Bulgarian flood
		protection, regional development and
		Ministry of Interior (To seek needs
		for enhancement of flood protection
		at basin level; 17 March; Sofia,
		Bulgaria)
	Organization of Steering Group	7 th Steering Group Meeting (27
	Meetings	March; Budapest, Hungary)
April	Technical Meeting	Flood Survey: Meeting with the
Г	<i>y y y y y y y y y y</i>	representatives of Ukrainian flood
		protection (To seek needs for
		enhancement of flood protection at
		basin level; 29 April; Nyíregyháza,
	To provide general information of the	Hungary) 25 th ICPDR FP EG Meeting (10-11
	Strategy and its implementation	April; Brno, Czech Republic)
Mov	1	1
May	To provide general information of the Strategy and its implementation	Meeting with DG ECHO, European Commission Emergency
	Stategy and its implementation	Response Coordination Centre,
	1	point continuon contro,

		(23 May; Brussels, Belgium)
June	Technical Meeting	Flood Survey: Meeting with the
		representatives of Romanian flood
		protection (To seek needs for
		enhancement of flood protection at
		basin level; 4 June; Budapest,
		Hungary)
	To provide general information of the	3rd EUSDR Annual Forum (26-27
	Strategy and its implementation	June; Vienna, Austria)

Besides the activities listed above the Hungarian PACs met the Hungarian NCP weekly. The Local Organizing Committee of the "Trans-boundary water issues in a macro-regional context: the Danube basin" Conference met every other week from June on.

How was the action carried out so far?

The TA project is there to facilitate the starting phase of the coordination of Priority Area 5. The implementation of the EUDRS in the area of PA 5 is going on smoothly.

- The Steering Group had its 7th Meeting in this reporting period.

- The 3rd Annual Forum was held in June, in Vienna The major task for the SG was to execute, review and modify roadmaps for each of the Actions under PA5. All of the eight roadmaps have been finalized.
- Special cooperation with ICPDR was set up. The information exchange is smooth at the level of Head of Delegations (we meet twice a year at the Standing Working Group and Ordinary Meeting of ICPDR) and Expert Groups, too. The ICPDR is managing three of the PA5 Actions.

How is the project going to meet the objectives of the budget heading?

- At the end of 2013 new HU Co-cordinator was nominated after Mr. Peter Bakonyi's retirement. In November of 2013 new members joined the Hungarian team of PA5 Cocordinator.
- In 2013 the TA contract was transferred from VITUKI to the Ministry of Foreign Affairs of Hungary. During the first half of 2014 the VITUKI managed to transfer the amount of the grant to the Ministry of Foreign Affairs.
- From the Romanian side activities have been supported from the ministry's budget or the ongoing projects budgets.
- We have begun to spend money from the Technical Assistance budget as well.

Please describe the transnational dimension of the project

The TA is there to help the PAC to manage the implementation of the EU Strategy for the Danube Region. The EUSDR is a regional programme and the PACs should, by definition, work in an international surroundings:

- The Steering Groups, managed by the PACs, are composed of the representatives of the 8 Member States and 6 Non-Member States, the representatives of the EU and that of the
- The targets and the actions are all of macro-regional range.
- The projects supporting the actions should also be international (the scope of the project should cover at least three countries).
- The PAC in his/her dissemination activities should reach all 14 Danube Region countries.

What contribution was made by the partners?

c.) Cooperation between the Romanian and Hungarian PACs

The cooperation between the PACs works smoothly. All tasks were executed jointly. Actions, presentations, reports, minutes etc. were discussed prior to the event and the agreed version was executed or presented. Hungarian partner got a lot of help from the Romanian side and also helped Romanian partner with technical (flood risk management) knowledge.

d.) Cooperation the SG Members

The work of the SG Members is mainly related to the SG Meetings. Their contribution is bringing in project proposals, helping the PACs in compiling list of stakeholders, evaluating project proposals for labelling, disseminating EUSDR information in their countries etc. Special added value was brought by NCPs and SG members during the so called Flood Survey.

e.) INTERACT

We have received a lot of help from INTERACT (LabGroup) by providing us with different guidelines, seed of homepage, training on how to program the homepage, compiling a comprehensive list of financing opportunities.

Auto-evaluation so far

- c.) Successes:
 - The SG is up and working, the attendance increased a bit but further efforts needed
 - Rules of Procedures adopted
 - Joint Pillar II Labelling Procedure adopted
 - No projects were given EUSDR Relevant label (no new projects were identified), but one Letter of Recommendation was issued as follows:
 - Climate of the Danube Region (DANUBECLIM)
 - Romania's proposal (DANUBE FLOODPLAIN: To support wetland and floodplain restoration as an effective mean of enhancing flood protection, and more generally to analyse and identify the best response to flood risk) for the 2nd call of DR TAF was admitted
 - Substantial progress made in many of the Actions (See Annex 1 of the Annual Report)
 - The homepage is working
- d.) Weaknesses:
 - The activity of the SG Members is not high enough (paying some of the expenses of non-MS members helped)
 - The participation on the SG Meetings is not enough yet (in the third year of EUSDR 3 out of the 14 countries have not shown up at all on the SG Meetings, all are non-EU Member States).
 - Dissemination need be strengthened
 - Homepage need to be more informative
 - Stakeholder involvement should be intensified.

Concrete outputs so far

Milestones reached so far:

• See the Annex 1 of the Annual Report

How was the action publicised and how have the results been disseminated so far?

We used the opportunities of conferences we got invitation to and personal contact as well. Conferences gave us the opportunity to meet

- Danube Network for NGOs (Friends of the EUSDR Conference),

- ICPDR.

The cooperation with ICPDR is done at two levels. The PACs report on the progress of the EUSDR at the Standing Working Group Meeting of the ICPDR in June and also at the Ordinary Meeting in December. This provides an opportunity to discuss EUSDR topics with the Head of Delegations of the 14 Danubian countries. More operative exchange of information is done at the level of the ICPDR's Expert Groups. Priority Area 5 has got a strong link to the work done in the Flood Protection Expert Group and the River Basin Management Group. The PACs report to each of these Expert Groups twice a year on their regular meetings. On the other hand two representatives of the ICPDR Secretariat attend the SG Meeting and report back on the progress made in those Actions that are coordinated by ICPDR.

We also used the homepage to provide information to the public, but our feeling was that it was less effective (no feedback from the homepage).

The report from the EC concerning the EUSDR, issued in 2013, has identified among various lessons learned one that is key: the need for further strengthening synergies with existing bodies and initiatives such as the ICPDR.

Following Commissionaire Hahn's incentives on sharing the duties of ICPDR and the Danube Strategy the Heads of Delegations agreed that there should not be 2 or 3 documents going to the European Commission. It should be one document with the ICPDR and Danube Strategy.

As in Mr. Colin Wolfe's letter is written: "it should be clear for everyone (in the Danube countries and in the European Commission) that the EU Danube Strategy should provide a significant contribution to prevent and address the consequences of the floods that are hitting the Danube Region with an ever increasing frequency. This is important for the credibility of the Strategy at the political level, and to respond to a practical need: better coordination (which also implies better prioritisation of the investments and measures needed in all countries) will lead to better and more efficient preventive and reactive measures for the benefit of all those living in the Danube basin."

Joint effort is needed, that is why the ICPDR agreed with the NCPs of PA4 and PA5 to prepare this joint document, in which the particular mandates, responsibilities, tasks and modus operandi for complimentary and joint activities of ICPDR and PA4/PA5 are clarified. The 16th ICPDR Ordinary Meeting formally endorsed this idea and tasked the ICPDR Permanent Secretariat to develop such a document jointly with the PA4 and PA5 counterparts.

The 2nd draft of this document, "ICPDR – EUSDR PA4 & PA5 COORDINATION Joint Paper on Cooperation and Synergy for the EUSDR Implementation" is under negotiation between the 2 parties.

What lessons have been learnt from this experience so far?

- d.) The lack of financing made people disappointed. This will create bad mood until financing is solved.
- e.) Communication need to be strengthened to explain people that EUSDR is a macro-regional programme and it can only handle large macro-regional projects.
- f.) There is a need of strong political support to keep the momentum.

Are there any plans to improve the implementation and if so, how?

We get prepared for the next, 2014-2021, financial period by trying to generate project ideas that fit EUSDR and help the implementation. Further we also communicate with the OP programmers to

represent the EUSDR in the next MFF. Romania will implement for the next two years another two projects related to Action 1, namely, "The prevention and protection against floods in the upper Siret and Prut River Basins, through the implementation of a modern monitoring system with automatic stations – EAST AVERT" and "Danube WATER integrated water management (WATER)".

We intend to collect project ideas that can be used for project development to start the next MFF.

Simona-Olimpia Negru PA5 Coordinator László Dobi PA5 Coordinator