**State of play as of March 2014**

**Priority Area 4 “To restore and maintain the quality of waters” (PA4)**

**Operation**

The general scheme of EUSDR PA4 operation is set up as established by the 14 Actions determined by COM. The Actions are broken down into operational steps (roadmaps) done by the Steering Group (SG). The mission of PA4 is the improvement of the efficiency of the implementation of roadmap items by: setting up an efficiency model, optimising the implementation by using the model, making a plan for the implementation and making an optimised investment and financing plan for the roadmap item.For effective operation and completing the foreseen targets, the PA4 carries out preparatory works, such as scientific and optimization projects as equally important elements of this process.

**The PACs and the Steering Group**

Following the second year of implementation of the EUSDR the Priority Area 4 has achieved the following results: it completed the identification of the operational steps, with targetsand milestones that were revised and accepted by the Steering Group (SG) and as a result, the**Roadmaps to the Action Plan for PA4 has been finalised** to achieve the identified goals of the Action Plan for the Strategy. The SG of PA4 **has been operating as foreseen** in the last two years: it meets twice a year. In 2013 two meetings were organised – on June 5, 2013 in Bratislava and on December 2013 in Vienna, back to back with the ICPDR Ordinary Meeting. The next meeting will be held on 28 March2014 back to back with PA5. The participation of the SG members was improving as a result that part of the Technical Assistance budget is dedicated to the travel and accommodation costs of SG members from non-EU countries to ensure participation. At the last SG meeting 13 countries were present.

**Results achieved in the last year**

* **Identified gaps with the Blueprint** options
* EUSDR aims included in national OPs in some countries, PA4 facilitates the programming tasks and prepared a **Discussion Paper on alignment of funding**.
* **Detailed technical surveysand reports** with policy recommendations were completed on the topics of
  + **buffer strips** along the rivers to retain nutrients and
  + to promote **alternative collection and treatment of waste** in small rural settlements;
  + survey of the situation on **management of solid waste** in small rural settlements and
  + on alternative collection and **treatment of wastewater** in small rural settlements.
* PA4 organised the international conference **“Safeguarding of Drinking Water Supply – Challenge for Danube Region”**held onDecember 2013 in Bratislava
* PA4 prepared a **Demarcation document for PA4-PA5 and ICPDR cooperation**
* **Strengthened institutional framework**: new colleagues contracted, regular cooperation with ICPDR and DG ENV ensured
* Wide **dissemination** activities (**Macro regional conference** in Budapest with 300 experts and high level policy representatives, Water Summit with a separate PA4 stand.)
* Concrete projects are being carried out or are under development in the topics of water quality monitoring and urban and rural waste water treatment systems and sediments.

**Cooperation**

**The Directorate General Environment**

The PA4 has **concluded a successful discussion with DG Environment** in May 2013. The meeting provided a useful opportunity to present the work of the water-related priority areas of the EUSDR and to discuss potential areas of cooperation. The **delegations agreed to have a systematic overview of the priorities based on the Blueprint findings, the** common implementation strategy (**CIS) reviews** and on exploring the potential synergies of the work of EUSDR and DG ENV and agreed that it would be especially helpful to have a review on the cross cutting issues. It was noted whenever a transnational character challenge occurs; the EUSDR should be considered as a potential tool to provide tangible solutions.

As a result of the discussion process it was stressed that the added value would be the issue of how the **Blueprint conclusions** can be implemented. The key priority to identify those areas where there is added value are the following: buffer strips, uniform monitoring network, early warning systems, cooperation with services, and initiative for the UWWT and finally to enable non- EU countries to have at least a clear picture for reasonable planning for implementation and use cohesion sources.

DG ENV is in a process of bilateral discussions, assessment of River Basin Management Plans and identified the shortcomings for the Member States. Some of these will be addressed with the CIS. There are number of shortcomings where the EUDSR can provide added value, for example there is an update on the **priority substances and buffers strips**. In order to facilitate discussion and provide updated information PA4 with a help of Justice and Environment (CZ) **prepared detailed surveys and reports on the situation of the Danube countries with regards to**

* **legislate at the appropriate level to limit the presence of phosphates in detergents;**
* **establish buffer strips along the rivers to retain nutrients and to promote alternative collection and treatment of waste in small rural settlements;**
* **survey of the situation on management of solid waste in small rural settlements;**
* **survey of the situation on alternative collection and treatment of wastewater in small rural settlements**

The PA4 is also working on several Urban Waste Water Treatment (UWWT) topics: large UWWT treatment systems and the other that are less than 2000 population: these two topics have different logics. PA4 would like to find an optimal solution for the small settlements with a view of changing climate and the least costs. (See details bellow)

With regard the Blueprint the PA4 identified and screened the research and development options in 2013 and carried out wide discussion with research institutes and policy experts, resulted in the macro regional conference findings.

**The ICPDR**

The PA4 cooperates closely with ICPDR especially as **the ICPDR Secretariat as permanent observer assumes eight action leaderships** of fourteen ones of PA4 and the remained actions are shared between EUSDR countries involved and committed in PA4. Experts of ICPDR and PA4 regularly communicate and exchange views on technical implementation and if possible, hold meetings back to back with each other and participate at each other’s meetings. 3 SG members are also members of the RBMP WG of ICPDR (Austria, Germany and Serbia, while the EC representatives and the Sava Commission also visit both groups.) The PA4 is leading the process of concluding partnership agreements and ensures the synergies of the EUSDR with the operative programmes, while ICPDR carries out technical research and reporting activities. The close cooperation between the PA4 and ICPDR is demonstrated also that the Technical Assistance Agreement with the European Commission is now concluded also with ICPDR beside the PA coordinating countries Hungary and Slovakia. ICPDR covers many water related issues above a certain scale or level. The PA4 has to deal with the complete Danube river basin, including rivers and lakes with smaller catchment, wetlands below 500 ha and waste water treatment below 10000 P.E. The activity of PA4 also includes the uncovered 90% of groundwater bodies, lakes below 100 km2. PA4 also focuses on the on-line monitoring of rivers endangered by accident risk industrial sites, on the remediation of areas contaminated by hazardous chemicals. All these tasks are done by initiating and supporting projects, matching the financial needs with proper institutions thus helping the implementation of our targets in practice.

**A demarcation document was prepared by PA4 to describe the mandate of the PA4-PA5 and the ICPDR and to work out the details of cooperation in the future. The demarcation document is currently on discussion and will be submitted to the Commission in 2014 after all parties agreed.**

**Progress Highlights**

**Supported projects: ThePA4 issued 12 projects** with Letter of Recommendation in the past two years. One project of PA4 got within the first call the TAF support from PA10.

**Organising of international conference** held in December 2013 in Bratislava – **“Safeguarding of Drinking Water Supply – Challenge for Danube Region”**

**Programming**: The PA4 is aware of the importance that MSs need to incorporate the EUSDR objectives into their national programming. It therefore contributed to the process to support sectorial steering group members and sectorial administrations to establish a **common base for programming of the EUSDR** goals and interventions in operative programmes via active contribution and mobilizing PA4 partners and sectorial administrations via Steering Group members to the Bucharest and Stuttgart meetings of OP programmers and EU SDR partners.

In terms of identifying financial gaps as well as in project level financial engineering the Budapest Danube Contact point offered assistance in a dedicated agenda point in a PA4 Steering Group meeting especially for **medium and large scale interventions** and EUSDR projects related water and environment.

The programming of Operational Programmes and Partnership Agreement was a topic of SG5, SG6 and the OP programming issues will be one of the focus points of the upcoming SG meeting in March as well.

A survey was completed in December-January among the SG members to find out the situation in the concerned countries**. PA4 prepared a draft document in March 2014 on programming and identifying JOINT Priorities to facilitate coordinating the programming tasks.**

**Topics:**

**River basin management**

There are initiatives on behalf of Ukraine for the participation in the classification and qualification of waters according to the EU WFD requirements and for the capacity building and cooperation in this specific field.

**Facilitate the alignment of funding and the support of the JPM of 1st and 2nd Danube River Basin Management Plan: The**PACs mobilized SG members and Danube countries to take active part in the programming process regarding 2014-2020       <http://www.southeast-europe.net/en/about_see/danubeprogramme/>; and it also became evident during the last period that most of the countries weren’t really active in EUSDR related programming and this is an area where more efforts are to be provided.

Related projects:

ProTisza - Promoting Strategic Partnership Enabling Cooperation in the Tisza River Basin

SEWABIS - Environmental Status of Sediment, Water and Biota in the Sava River Basin

SEE River - Sustainable Integrated Management Of International River Corridors in SEE Countries.

**Tisza relevant resolution 2013 June (from the ICPDR Standing Working Group meeting)**: Hungary offered to ensure the ICPDR coordination activities for a transition period and the STWG reaffirmed the commitment to provide funding for the development of the project proposal from the ICPDR Danube Strategy fund. Hungary setup an international expert position on watershed-planning, at the National Institute for Environment at the beginning of October 2013. The main objective is to ensure follow up activities of the ICPDR Tisza Group work. The work will be coordinated via PAC4 (by ensuring partly the financing of the position as well as facilitating the development of a Tisza project**). The next** Tisza G. meeting is planned to be organised in March 2014. One of the agenda items of the meeting will focus on the update of the pro-Tisza project. The project should aim to establish the basis and framework of a long-term Tisza basin cooperation.

**Urban Waste Water Treatment**

A workshop was organised in April 2013 to discuss progress achieved in the implementation of the Joint Program of Measures from the 1st Danube River Basin Management Plan, to learn about funding needs and potential funding instruments for actions, supported by presentations on practical examples for financing measures. A key element of the Joint Program of Measures is the extension of urban wastewater treatment, which was specifically addressed in the frame of the workshop. Hungary recommended providing funding for this task under the Danube Transnational Programme. The PA4 initiated contacts with the related waste water treatment services to establish working groups and proceed developing project ideas.

Related project: Blue-Danube - Improved framework conditions for fast track eco-innovation in waste water treatment. The Europe-wide issue of toxic, hormone-like and endocrine disruptor effect chemicals, which remain practically unchanged during the conventional waste water treatment process is addressed in this project. Its live model areasare in Vidim (BG) and in Augsburg (D) waste water plant where the removal of the above mentioned compounds is tested on a large scale, under real conditions. The applied method is based on the use of nanotechnology resulting in high efficient removal of the harmful compounds.

**Buffer zones –small rural settlements, alternative waste water treatment possibilitiesforsmall settlements**

Survey of the situation on buffer zones and on management of solid waste, on alternative collection and treatment wastewater in small rural settlements was completed.

A small settlement waste water treatment optimizations system was identified as a result of the cooperation with the Budapest Technical University (BME) fortheintegratedsolutionsforwastewatertreatmentinsmallsettlements and ruralareas. The initial problem arises from the settlement structure of agro-industrial regions of many countries resulting in large proportion of untreated waste water and substantial diffuse pollution of ground water and surface water. It is already known that conventional „concrete based” sewerage systems are less appropriate technically and catastrophic from financial point of view. The effect of loads caused by untreated waste water on water quality is also a significant issue. The core idea of PA4 is a multi-criteria evaluation method with all the small scale water treatment equipment on one side, and a large number of ambient and social and economy parameter on the other side. With the multi-criteria evaluation method joined with GIS ambient and social database the most suitable small scale waste water treatment equipment can be determined.

**Water quality monitoring**

A very effective water quality model was identified by PA4 as a result of an intensive research and discussion process in 2013 and a scientific model was presented to wide international audience at the macro- regional conference in September. The base concept is ready for a unified early warning alert system for the territory of the Tisza river basin. This issue is very important as it affects all inhabitants in the Danube river base and can improve water quality and thus would improve living conditions. Early warning function and effect based monitoring of water analysis are joined together comprising a cost effective integrated system which performs sampling, analysis and toxicity testing of surface waters. The selection of appropriate sampling locations is essential to characterise water bodies while reacting on industrial or other hot spots and also keeping record of water quality in country border sections. Due to the proper architecture of monitoring stations, data transmission and databases, together with a state-of-the-art communication system the international early warning function is also ensured. The modular structure of each monitoring station makes easy to react on varying analytical requirements, the frequency and speed of analysis results in quasi-continuous information about whole catchment areas. As a result of effect based monitoring only relevant samples are transported and analysed in labs resulting in decrease of running and investment cost of monitoring.

**Sediment issues and consequences in the Danube river**

The sediment project identified by the PA4 focuses on the Danube bed situation and its problems.The relevance of the project started decades ago, but only slow and little steps were made towards a better knowledge of the real effects caused of human interventions into the nature.The proposed project deals with the effects of the hydropower plants (78 barriers along the Danube), theworks of flood protection (causing a loss of the 80% of the original floodplain area) and the navigation (2411 km navigable waterway),river bed degradation (2 cm/year) in the upper and also the middle Danube. This project was also presented to wide international audience at the macro-regional conference in September 2013.The base concept is ready for the establishment of adequate hydraulic laboratories, computer based simulations, but also field study sites for model calibration and validation are selected.With the project planning the building of cooperation between research institutions along the Danube River has already started.

**The next steps, envisaged progress**

In the upcoming few months the PA4 will accelerate work with regards especially to**Programming OPs** for assisting MS to incorporate EUSDR aims into their national programming procedures. **PA4 identifies its JOINT PRIORTIES that shall be communicated at all forums in the programming channel**.

The PA4 will accelerate efforts to **strengthen cooperation and identify new partners** with non- members states, such as in the frame of twinning programmes with Moldova and Ukraine.In the frame of the International Development Cooperative Framework (NEFE), the Ministry of Foreign Affairs finances experts from the Danube countries to facilitate cooperation of PA activities. In 2013 experts from Baden-Württemberg and Ukraine have been invited to facilitate transboundary cooperation in connection to the PA activities and additional experts will arrive from Moldova. Discussions have already been started with Bosnia and Herzegovina and Serbia on possible future co-operations. The NEFE main objective is to strengthen PA activities especially with the support of the Non-EU countries. (This support covers among others travel costs, consultancy/expert fees)*.*