

- at the EuroMed level, by EMWIS in particular in the framework of the extension of the Shared Environmental Information System to South EU neighborhood countries for structuring water information systems;
- at the EU level, by the EEA and DG ENV feeding into the Common Implementation Strategy (CIS) for the EU Water Framework Directive (WFD 2000/60/EC) to improve the EU wide water accounts and to provide examples of quantitative water resources management measures and related targets that could be added to RBMP as a response to the outcomes of the “Blueprint to safeguard Europe’s waters”.



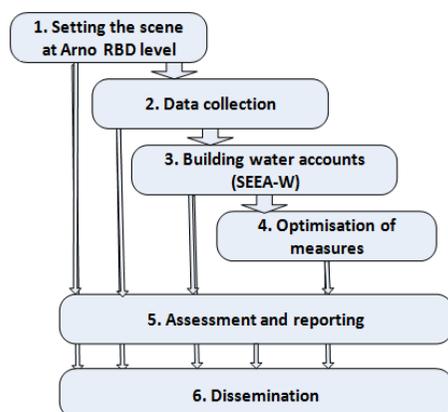
## THE “PILOT ARNO WATER ACCOUNTS (PAWA)” PROJECT

**JAN. 2014 – MAR. 2015**

**Grant Agreement  
No. 07.0329/2013/671279/SUB/ENV.C.1**

**Funded by  
the EC Directorate-General Environment  
Directorate D – Water, Marine Environment & Chemicals  
ENV.D.1 – Protection of Water Resources**

### PAWA activities & deliverables



| Act. | Deliverables   |
|------|--|
| 1    | D1.1 Catalogue of data sources and tools<br>D1.2 Prioritisation list of sub-basins   |
| 2    | D2.1 Repository of data sets<br>D2.2 Assessment of data availability   |
| 3    | D3.1 1 <sup>st</sup> draft water flow diagrams and associated SEEA-W tables<br>D3.2 Geo-referenced database for water accounts                             |
| 4    | D4.1 Water efficient targets for future revisions Arno RBMP  |
| 5    | D5.1 Water account tables<br>D5.2 Final report   |
| 6    | D6.1 Project leaflet<br>D6.2 Compendium of lessons learnt<br>D6.3 Detailed list of dissemination activities, including project presentations during events |

Starting date: **1<sup>st</sup> January 2015** – End date: **31<sup>st</sup> March 2015**

Duration: **15 months**

Project coordinator: **Dr. Stefano Mariani – ISPRA**

For any further details, please visit the PAWA official web page:

❖ <http://pawa.emwis.net/>

and the web pages in Italian:

❖ <http://www.isprambiente.gov.it/it/progetti/pawa>

❖ <http://www.adbarno.it/adb/>

or send an email to: [pawa@isprambiente.it](mailto:pawa@isprambiente.it).

**under the 2013 Call for Proposals**

**“Preparatory Action on development of prevention activities to halt desertification in Europe”**

### Partners



The **PAWA** project started in January 2014 as part of the funding call launched by the Directorate-General Environment (**DG ENV**) of the European Commission with the aim of promoting preventive actions against desertification through a sustainable management of water resources. The call focused on those river basins that were seriously affected in the last years by water scarcity, droughts and/or desertification. **Seven pilot projects** were selected for funding under this call, namely **ASSET**, **DURERO**, **GuaSEAW+**, **PAWA**, **PROTAGUS**, **SYWAG**, and **WAMCD**. These projects include as target areas three transnational river basins (*Duero*, *Guadiana*, and *Tagus* - located between Spain and Portugal), several Spanish river basins (*Guadalquivir*, *Segura*, and the *Andalusian Mediterranean basins*), and one Italian river basin (**Arno**).

The **PAWA** consortium consists of the following partners: the Italian Institute for Environmental Protection and Research (**ISPRA** - leading partner); the Arno River Basin Authority (**ARBA**); and the International Organization **SEMIDE/EMWIS**, which is an initiative of the Euro-Mediterranean Partnership (**EuroMed**).

Following the framework provided by the **SEEA-Water - System of Environmental-Economic Accounting for Water**, the project aims at:



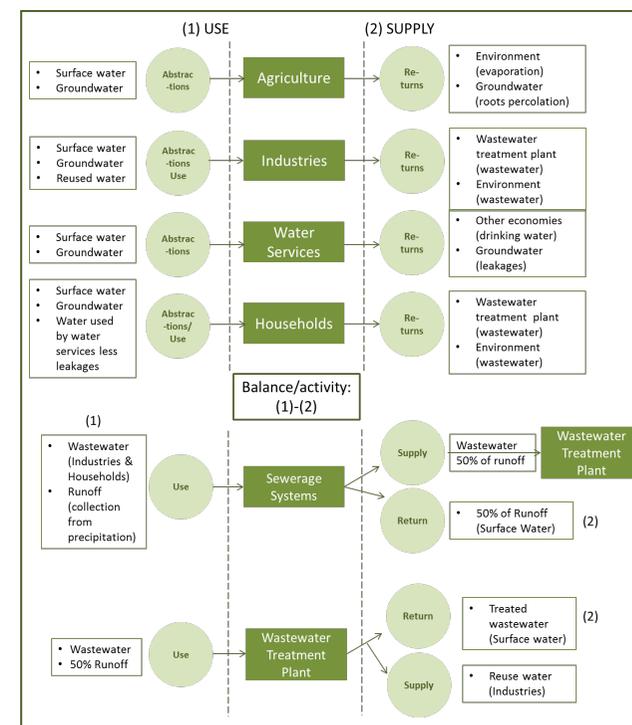
i) **improving the knowledge on water resources available** in the **Arno River basin** and their use within or outside the basin; and ii) **assessing the potential impact**

**of management, technological and economical measures to reduce the vulnerability** of the territory **against water scarcity and drought**. Three sub-basins, namely the **Bisenzio** and the **Chiana** valleys and the **Pisa** area, have been identified as **priority areas** to prepare water accounts on a monthly basis, from **1999** to **2013**.

Water flow diagrams representing the **Water Supply and Use Accounts** and the **Water Asset Accounts** on the selected sub-basins have been prepared, validated with local stakeholders during the **PAWA**

**Stakeholder Workshops**, and used to prioritize data collection. After that, the so-defined diagrams have been interpreted to calculate water balances and to fulfill the **SEEA-Water** tables using a Visual Basic tool.

Also datasets based on **climate change scenarios** coexisting with the impacts of **water saving measure** can be used in this tool. This provides **ARBA** with a useful mean to assess the impacts of the selected measures and to **prepare water efficiency targets** for potential future integration into the Arno River Basin Management Plan (**RBMP**).



**Visualization products**, such as graphs and maps, based on the water accounts can now be deployed for decision making and concertation with local stakeholders.

By providing the water balance tables and the related datasets, **the project contributes in improving the implementation of water accounts at EU level** by a better calibration of the computation used by the European Environmental Agency (**EEA**). The results of **PAWA** can be also used:

- **at Arno river basin level, by ARBA and local stakeholders to improve decision making** related to quantitative water resources management;
- **at the Italian level, by ISPRA for coherent developments in other river basins** in order to face water scarcity, droughts and/or desertification in the future;