FINAL TECHNICAL REPORT:

ASSET Accounting System for the SEgura river and Transfers

- This report must be completed and signed by the Co-ordinator.
- The information provided below must correspond to the financial information that appears in the financial report.
- Please expand the paragraphs as necessary.
- Please send 1 copy of the report by registered mail and 1 copy by email to the addressees mentioned in the grant agreement. For full information on the Submission of reports please refer to the relevant article in the Grant Agreement – Special conditions. You may provide the report in EN or FR.
- Unless otherwise specified, the answer to all questions must cover the complete reporting period as specified in Article I.2 of the Special Conditions.
1. Description

1.1. Name of beneficiary of grant contract:
    Universidad Politécnica de Cartagena

1.2. Name and title of the Co-ordinator:
    Dr. Sandra G. García Galiano

1.3. Name of partners in the grant agreement (if applicable):
    Confederación Hidrográfica del Segura (CHS)
    Futurewater (FW-ES)
    SAMUI FRANCE SARL (SAMUI-FR)

1.4. Title of the Action:
    Accounting System for the SEgura river and Transfers (ASSET)

1.5. Number of the Grant Agreement:
    07.0329/2013/671258/SUB/C1

1.6. Start date and end date of the Grant Agreement:
    01/01/2014-31/03/2015
2. Assessment of implementation of Action activities

2.1. Executive summary

Please give a global overview of the Action's implementation for the whole duration of the project. This executive summary may be used for communication purposes.

The policies for the sustainable management of water resources are a priority on the European and national governmental agendas. Current challenges at the European level are to enhance the knowledge base on the reference situation in terms of water availability and demand, as well as to define a Guidance Document on the Application of Water Balances for supporting the implementation of the Water Framework Directive (WFD). In addition, valuation of costs and benefits and target setting is required, integrated in the River Basin Management Plans (RBMPs), taking into account the vulnerability of the measures due to future changes, for example climate change.

In this framework, the main aim of the ASSET (Accounting System for the SEgura river and Transfers) project, funded by the European Commission under the topic Halting Desertification in Europe, was to obtain, assess and standardize detailed information on the Segura River basin (SRB, Southeast of Spain), including the significant external transfers of water into the basin.

The Segura River Basin (SRB, Spain), located in the Southeastern part of the Iberian Peninsula with an area of 18,870 km², has the lowest percentage of renewable water resources of all Spanish basins and is highly regulated. The main water demand comes from agriculture, covering more than 43 % of the basin surface, of which one-third is brought under irrigation. In 2007 the agricultural water demand from irrigated areas of the SRB accounted for 85% of the total water demand in the entire basin. The available water resources per inhabitant in the SRB correspond to 442 m³/inhabitant/year. The difference between water supply and demand is high. Consequently, two incoming water transfers together with desalinization are considered the most attractive options to increase water availability in the basin. The problems of water scarcity and droughts are persistent in the basin, affecting the economy of the region and generating water conflicts between the final users (such as irrigation communities).

Throughout the project, the utilization of resource management, technological and economic measures to decrease water scarcity in this drought-prone region was analysed and demonstrated to be of value. The principal tool employed for this purpose was SEEAW (System of Economic and Environmental Accounts for Water), complementing the EU water resource balances with local data for SRB.

The specific planned objectives were successfully reached:

(i) Collect and assess data on availability and demands, both in time, space and on the sector-level, principally from existing studies and documents, and adapt the data for the implementation of the UN System of Environmental-Economic Accounting for Water (SEEA-W) implementation.

In summary, considering a time period of 10 years (2000-2010) and a spatial discretization of the basin based both on European Catchment and Rivers Network System (ECRIN) aggregation and the exploitation systems, seven Representative Elementary Watershed Management Units (REWMU) were defined in the basin and the corresponding tables were generated:

- Physical Supply and Use Tables (PSUTs) at annual scale for each REWMU
- Hybrid Supply and Use tables at annual scale for the whole basin
- ASSET tables at monthly scale for each REWMU

In addition, a deep analysis of some economic indicators was completed. At the basin scale, indicators of Water Productivity (WPe), and others related to the cost of
supplying water were evaluated, including Implicit water price (IWP) and Implicit wastewater treatment price (IWTP) as well as the Average water supply cost (AWSC) and the Average wastewater treatment cost (AWTC). Also, by industry, other indicators have been estimated in order to show the differences among water users sectors.

(ii) Test several innovative methodologies which allow closing the water balances and increasing the accuracy of the water accounts.

Among the outcomes of the project, highlight the development of GIS-embedded spatio-temporal toolbox for processing ASSET tables; implementation of an innovative methodology for generating input to water balances from remote sensing (such as actual evapotranspiration retrieval from satellite images); the deep analysis of rainfall and drought trends (through annual maximum dry spells lengths) obtained from Regional Climate Models (RCMs) by novel RCMs ensemble methods.

The actual evapotranspiration (ETa) is a key input to water balances, and sometimes a source of uncertainty. Assessing ETa from satellite images (MODIS data) provides spatial-temporal distributions. The ground truth validation with eddy covariance, demonstrated the reduction of uncertainties involved.

(iii) Integrate the water accounts with the RBMP, demonstrate their use for the local planning, disseminate and interact with other local stakeholders and provide recommendations for upscaling of findings.

Promising steps were taken in the integration of these types of methodologies in the RBMPs. The active participation in activities hosted by the Ministry of Food, Agriculture and Environment (MAGRAMA) of Spain promoted the SEEAW dissemination and interaction with other stakeholders for its application.

(iv) Identify a set of measures, both management, technological and economic, which should reduce the water scarcity in the basin and its vulnerability to drought;

ASSET project promoted the engagement of stakeholders, and advice from external experts, by hosting several meetings (such as the International Meeting on Water Accounting) and the participation in workshops. The strong involvement of the Segura river basin authority (CHS), which started the public consultation process for the RBMP, encouraged the identification and assessment of selected measures included in the Programme of Measures (PoM) of the RBMP.

(v) Assess the basin vulnerability for future changes (climate change, economic, demographic)

In this context, specific studies were made both from observed data and RCMs. Three critical issues were addressed: (a) calculation of a set of use-to-availability indicators at the sub-basin scale from the SEEAW tables; (b) analysis of the effects of a 4-year drought period on the use-to-availability patterns observed at the basin; and (c) impact evaluation of various water management measures on water shortage, taking into account climate change and population growth. Finally, an analysis of the potential impacts resulting from a reduction of the exploitable resources in the basin as consequence of climate and population changes and the effects that a set of resource management measurements could have in softening a future scenario featuring higher water shortages was addressed.

In conclusion, the ASSET project, by the innovative methodologies developed for implementing SEEAW framework and the indicators derived, provides relevant outcomes to RBMP for efficient allocation of water resources, and complements the EU water resources balance at the local scale. The project provides recommendations to improve the SEEAW methodology and overcome the barriers in its implementation.
2.2. **Activities and results**

Please list all the activities in line with Annex I of the Grant Agreement.

The details of activities and results are presented in the *Technical Report of ASSET Project*, attached to this *Summary*.

For clarification, the Tasks-Activities and relations are presented in the following Pert diagram.

![Pert Diagram](image)

**Task A. Develop Water Accounts for the Segura River Basin**

**Activity: Data collection**

**Topics:**

This activity was oriented to collect all data available from existing studies and documents for SEEAW implementation. The methodologies used as well as sources of data, will be defined in the corresponding factsheets for each type of SEEAW table.

The main topics covered by this activity are the following:

- **FACT SHEETS PSUTS**
  - Agriculture
  - Industry
  - Energy
  - W-Supply
  - W-Sanitation
  - Services
  - Households
- **FACT SHEETS HYBRID TABLES**
  - Hybrid Supply Tables
  - Hybrid Use Tables
Hybrid Supply and Use Tables
- Hybrid account table for water supply and sewerage for own use
- Government accounts on water-related collective consumption services
- National expenditure accounts for natural water and wastewater management
- Financing accounts

- FACTSHEETS ASSET TABLE
  - Water resources
  - Increases in stocks
  - Decreases in stocks

Results: The corresponding factsheets were defined for PSUTs, Hybrid and ASSET tables.

The specific deliverable D-A.1 Report on data on temporal and spatial data collected for the water accounts, was integrated in the Technical Report of ASSET Project.

Activity: A2 Data Implementation into ECRINS and SEEAW.

Topics:
This task processed all the collected data towards at different temporal (from monthly to annual) and spatial disaggregation, needed for SEEAW. All the topics were oriented to build the water balances, PSUTs and Hybrid tables within the SEEAW framework.

The main topics covered by this activity are the following:

- DATA IMPLEMENTATION IN SEEAW
- DEVELOPMENT OF PHYSICAL USE AND SUPPLY TABLES (PSUTS)
- DEVELOPMENT OF HYBRID TABLES
- DEVELOPMENT OF ASSET TABLES
  - Identification of Water Resources System at REWMU level
  - Assessing inputs to ASSET tables at REWMU level

Results:
A period of ten years was selected (2000-2010) for the SEEAW implementation. To implement the SEEAW framework in the SRB, ASSET adopts the sub-basin scale as the spatial reference domain in an attempt to capture the strong socio-economic and biophysical heterogeneities typically observed in Mediterranean environments. Taking as start point the highest resolution of the ECRINS dataset, and a multi-criteria decision analysis based on physiographic, functional management and expert knowledge items, the SRB was divided into the seven Representative Elementary Watershed Management Units (REWMUs) over which the accounting tables were fulfilled.

The PSUTs tables were developed at annual time scale for each REWMU. The Hybrid tables were obtained at annual scale for the whole basin. Finally, the ASSET tables were obtained at monthly scale, and REWMU spatial discretization, for the defined period (2000-2010).

The specific deliverable D-A.2 Report on the implementation of SEEAW for the Segura river basin district, was integrated in the Technical Report of ASSET Project.

Task B. Innovative procedures for Data Collection and Integration.

Activity: Actual evapotranspiration for water balance closure
Topics:
In the framework of this task, it was developed and applied an innovative methodology for actual evapotranspiration (AET) remote sensing retrieval. Based on MODIS satellite images and time period 2000-2010, the spatial distributions of AET at monthly scale and spatial resolution of 1kmx1km were obtained. These time series were used as input to ASSET tables for SEEAW implementation. The methodology developed was ground truth validated with eddy covariance data in the Campo de Cartagena (Segura River basin).

The main topics covered by this activity are the following:

- ACTUAL EVAPOTRANSPIRATION ASSESMENT FROM REMOTE SENSING
  - METHODOLOGY
  - MATERIALS
    - Remote sensing data
    - Ground data

Results:
The main result is the validation of innovative methodologies supporting the elaboration of water balances at EU level.

The specific deliverable *D-B.1 Report on the results of actual evapotranspiration (ETact) assessment*, was integrated in the *Technical Report of ASSET Project*.

Activity: Development and testing of GIS-based solution for data integration

Topics:
The complete application of SEEAW methodology implies the processing of a huge spatial and temporal database. In this context, the development and application of spatio-temporal toolbox GIS embedded, represents the better solution for processing the huge volume of geo-referenced information required.

The main topics covered by this activity are the following:

- TOOLS AND LANGUAGES
- DATABASE
  - Alphanumerical information
- THE DATA MODEL
- INTEGRATION TOOL OF ALPHANUMERIC AND SPATIAL DATA

Results:
Novel algorithms were developed below GRASS GIS solution, for implementation of water account tables. A relational data model was designed based on ASSET table requirements. The specific deliverable *D-B.2 Report on the data processing, reconstruction and integration of methodologies*, was integrated in the *Technical Report of ASSET Project*.

Activity: Merging local and ENSEMBLES climate data

Topics:
The plausible trends of climate change impacts on extreme drought events, as well as seasonal and annual rainfall, were assessed for the scenario 2050. Information provided by Regional Climate Models (RCM) from EU ENSEMBLES Project and gridded rainfall
(Spain02 dataset) were considered. Novel methodologies for building multimodel ensembles of rainfall and maximum dry spells lengths (AMDSL) from RCMs were applied.

The main topics covered by this activity are the following:

- **ANTECEDENTS**
- **DATASETS**
- **METHODOLOGY FOR BUILDING THE RCMS ENSEMBLE**
  - Reliability factors of Annual Maximum Dry Spell Lengths (AMDSL) time series
  - Reliability factor of seasonal and annual rainfall
- **DISCUSSION OF RESULTS**
  - Annual Maximum Extreme Dry Spells (AMDSL)
  - Annual and seasonal rainfall

**Results:**

Considering the results from the RCMs ensembles, a scenario of decreasing trend in mean annual rainfall is plausible. This trend is mainly justified in the time series of rainfall of autumn and spring. However, a slight increase the average value is identified for winter, with a general small downward trend of the mean annual rainfall for the entire basin. In addition, an intensification of the hydrological cycle through the increase in length of AMDSL is identified for Segura River Basin. In conclusion, a significant and widespread increase throughout Segura River Basin of the AMDSL between the years 1990 and 2050 is expected.

The specific deliverable *D-B.3 Report on the results of ENSEMBLES versus local data assessment*, was integrated in the *Technical Report of ASSET Project*.

**Task D- Activity: Identification of Measures for Optimizing Water Allocations.**

**Topics:**

The task’s aim is to identify management, technological, administrative and economic measures and assess their potential impact and effectiveness against specific criteria (e.g. water use reduction per economic activity, and cost) for the Segura River Basin (SRB). The River Basin Management Plan (RBMP) for the SRB includes a detailed programme of measures (PoM) dealing with particular aspects of water management such as water scarcity and droughts (WS&D). A wide range of measures for managing WS&D are found in the RBMP; the most significant ones being:

- reduction/management of groundwater abstraction,
- Urban use
- Surveillance measures
- Irrigation use
- Assessment and protection of environmental flows and environmental demands

**Results:**

The main outcome of this task a list of measures identified and assessed through the use of water accounts. The specific deliverable *D-D.1 Report on the identification and evaluation of measures to optimize water management in the Segura Basin through water accounts*, was integrated in the *Technical Report of ASSET Project*. 
Task-Activity E: Harmonizing RBMP and Water Accounts: Targeting and Uncertainty Assessment under Future Changes

Topics:
The main aim of this task is to extract indicative target levels of water availability and usage, and potentials for water saving and increase the resilience of the Segura River Basin (SRB) against future water shortages. To address these topics, the activity covers three critical issues:

- The calculation of a set of use-to-availability indicators at the sub-basin scale from the SEEAW tables.
- The analysis of the effects of a 4-year drought period on the use-to-availability patterns observed at the basin.
- The impact evaluation of various water management measures on water shortage taking into account climate change and population growth.

The activity addressed the following topics:
- HARMONIZING RBMP AND WATER ACCOUNTS
- DROUGHT VULNERABILITY ASSESSMENT USING WATER ACCOUNTING
  - Water use-to-availability indicators
  - Drought-based assessment in the 2000-2010 period
  - Climate and management scenarios
- RESULTS
  - Water use-to-availability indicators
- ANALYSIS OF THE SEGURA 2005-2008 DROUGHT PERIOD USING PSUT OUTPUTS
  - Drought characterization
  - Impacts on water usage and supply patterns
  - Effects of adaptation measurements on the SRB water accounting

Results:
The main outcomes were: a) the definition and description of common use-to-availability water indicators for the Segura River Basin, b) the temporal characterization of the drought periods in the study region, and c) a descriptive analysis of the potential impacts resulting from a reduction of the exploitable resources in the basin as consequence of climate and population changes, and the effects that a set of management measurements could have in softening a future scenario with higher water shortages. The specific deliverable D-E.1 Report on target setting and vulnerability of measures for future changes, was integrated in the Technical Report of ASSET Project.

Task-Activity C. Dissemination and Integration with River Basin Management Plan

Topics:
In the first part of the task the Communication and Dissemination plan was developed. While in the second part, the website and tools were addressed.

The main topics covered by this activity are the following:
STRATEGY OF DISSEMINATION AND COMMUNICATION

INTRODUCTION
- Why is a Communication and Dissemination Plan needed?
- When to plan?
- Who is our audience?
- Who should communicate?
- Purpose of this Communication and Dissemination Plan

VISION AND PRINCIPLES OF THE COMMUNICATION AND DISSEMINATION PLAN
- Guiding Principles of Communication and Dissemination
- Guidance on the Principles

FOUR STAGES TO IMPLEMENTATION
- Definitions
- Maximising Uptake and Implementation

IDENTIFIED ACTIONS
- Project Reports
- Meetings, Workshops and Conferences
- Website and Email
- Teaching Material

FUTURE PLANNING OF ACTIONS
- The Co-ordinator
- Steps in Planning Actions

PUBLIC AREA OF THE WEBSITE

DESCRIPTION OF THE PROGRAMME IMPLEMENTED
- Design of the website
- Future development

Results:
The main result corresponds to the Website www.assetwater.eu

The Project Plan and Links are presented in www.assetwater.eu/Work_Plan.php with links to
- Work Plan
- Project Timetable
- Visual Material

News & Events www.assetwater.eu/news.php with links to
- News
- Meetings & Events
- Subscribe to Newsletter

Specific deliverable (such as D.C.1. Project website and D.C.2. C&D plan), were integrated in the Technical Report of ASSET Project.
Task F. Coordination and Management

Topics:
One of the main objectives of the Project Management has been to keep in regular contact with all the WP leaders and working teams, in order to coordinate the efforts and resolve problems whenever necessary. The travel budget was considered highly enough for mainly communicate and discuss through regular *face-to-face* meetings. The list of the main meetings along the project is presented in Table 1.

**Table 1. List of main meetings**

<table>
<thead>
<tr>
<th>Meeting</th>
<th>Venue</th>
<th>Date</th>
<th>Participants</th>
</tr>
</thead>
</table>
| KICK-OFF MEETING OF THE 2013 HALTING DESERTIFICATION IN EUROPE PILOT PROJECTS. DG ENV | Brussels, Belgium EC hosted              | Feb/2014  | - UPCT, SAMUI-FR, and FW-ES ASSET’s partners  
- Participation of the rest of projects selected for funding  
- European Officers                                                   |
| Kick-off Meeting, ASSET Project, Spain                                 | Cartagena, Spain. UPCT hosting           | Feb/2014  | - All partners of ASSET                                                       |
| Coordination meeting with Stakeholder                                   | CHS, Murcia                              | Mar/2014  | - UPCT and CHS as partners of ASSET                                           |
| Stakeholders Workshop Meeting *(PRIMERA REUNIÓN NACIONAL DEL SISTEMA DE CUENTAS MEDIOAMBIENTALES – ECONÓMICAS DEL AGUA, DG Water, MAGRAMA, Madrid, Spain)* | Madrid, Spain hosted by Ministry of Food, Agriculture and Environment (MAGRAMA) | Jun/2014  | - UPCT, FW-ES, MAGRAMA as partners of ASSET  
- Also: stakeholders from several Spanish river basin authorities.  
- European Officer (Dagmar Kaljaricova)  
- Responsible of Deputy of Water Resources Planning of Spain (Víctor Arqued and Conchita Marcuello) |
| Meetings with other Pilot projects, and universities in the topic       | . Córdoba, Spain  
- UCO from SYWAG project                                                 |
| Several technical and coordination meetings                              | CHS                                      | Several dates | Several partners                                                                 |
| End of 1st year Project Meeting and Workshop                           | Cartagena, Spain. UPCT hosting           | Dec 15-16th, 2014 | - All partners of ASSET  
- Also Abel Solera Solera UPV (Expert invited)                           |
| International Meeting: Improving Water Accounting at the Basin Level (Final Meeting) | Cartagena, Spain. UPCT hosting           | Feb 24-26th, 2015 | - All partners of ASSET  
- DURERO coordinator  
- SYWAG coordinator  
- PAWA coordinator  
- GUASEEAW+  
- P. Droogers (FW-ND) as... |
Results:
The results were according to the proposal.

2.3. If applicable - Activities that have not taken place

Please outline any activity foreseen in the contract that has not taken place /has been modified. Please include the reason/s for such modifications and how it has been addressed. Please include reference to the modification requests sent to the Commission and response (ref General Provisions Article II.12 – Amendments to the Agreement).

NA

2.4. What is your assessment of the results of the Action? Include observations on the performance and the achievement of outputs, outcomes, impact and risks in relation to specific and overall objectives, and whether the Action has had any unforeseen positive or negative results. (Please quantify where possible).

The project successfully reached all the planned aims, according to the proposal. Specifically, the set of SEEAW planned tables for time period 2000-2010 for Segura River Basin, were built. At REWMU scale, both PSUTs (annual scale) and ASSET (monthly) tables were obtained. The Hybrid tables were derived for the whole basin at annual scale.

As it was mentioned in the Executive Summary, specific findings according to each aim were reached:

(i) Collect and assess data water availability and demands, both in time, space and on sector-level, principally from existing studies and documents, and adapt the data for the implementation of UN System of Environmental-Economic Accounting for Water (SEEA-W) implementation.

In summary, considering a time period of 10 years (2000-2010) and a spatial discretization of the basin based both on ECRIN aggregation and exploitation system, seven Representative Elementary Watershed Management Units (REWMU) were defined in the basin, the corresponding tables were generated:
- Physical Supply and Use Tables (PSUTs) at annual scale for each REWMU
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- ASSET tables at monthly scale for each REWMU

In addition, a deep analysis of some economic indicators was made. At basin scale, indicators Water Productivity (WPe), and others related with the cost of supplying water, implicit water price (IWP) and Implicit wastewater treatment price (IWTP), the Average water supply cost (AWSC) and the Average wastewater treatment cost (AWTC). Also, by industry, others indicators have been estimated in order to show the differences among water users sectors. Thus, additional information is collected by the indicators: Water
Productivity (WPi) Average water supply cost (AWSCi) and the Average wastewater treatment cost (AWTCi). Finally, the Added Values by unit of water used have been estimated (AVWUi).

(ii) Test several innovative methodologies which allow closing the water balances and increase the accuracy of the water accounts.

Among the outcomes of the project, highlight the development of GIS-embedded spatio temporal toolbox for processing ASSET tables; innovative methodology for generating input to water balances from remote sensing (such as actual evapotranspiration retrieval from satellite images), and the deep analysis of rainfall and drought (through annual maximum dry spells lengths) trends, from Regional Climate Models (RCMs) by novel RCMs ensemble methods.

The actual evapotranspiration (ETa) is a key input to water balances, and sometimes a source of uncertainty. Assessing ETa from satellite images (MODIS data) provides spatial-temporal distributions. The ground truth validation with eddy covariance, demonstrated the reduction of uncertainties involved.

(iii) Integrate the water accounts with the RBMP, demonstrate their use for the local planning, disseminate and interact with other local stakeholders and provide recommendations for upscaling of findings.

Promising steps were done in the integration of these types of methodologies in the RBMPs. The active participation in activities hosted by Ministry of Food, Agriculture and Environment of Spain, promoted the SEEAW dissemination and interaction with other stakeholders for its application.

(iv) Identify a set of measures, both management, technological and economic, which should reduce the water scarcity in the basin and its vulnerability to drought;

ASSET project promoted the engagement of stakeholders, and advice from external experts, by hosting several meetings (such as the International Meeting on Water Accounting) and the participation in workshops. The strong involvement of the Segura river basin authority (CHS), which started the public consultation process for the RBMP, encouraged the identification and assessment of selected measures included in the Programme of Measures (PoM) of the RBMP.

(v) Assess the basin vulnerability for future changes (climate change, economic, demographic)

In this context, specific studies were made both from observed data and RCMs. Three critical issues were addressed: (a) calculation of a set of use-to-availability indicators at the sub-basin scale from the SEEAW tables; (b) analysis of the effects of a 4-year drought period on the use-to-availability patterns observed at the basin; and (c) impact evaluation of various water management measures on water shortage taking into account climate change and population growth. Finally, an analysis of the potential impacts resulting from a reduction of the exploitable resources in the basin as consequence of climate and population changes, and the effects that a set of management measurements could have in softening a future scenario with higher water shortages, was addressed.

2.5. Describe if the Action will continue after the support from the European Union has ended. Are there any follow up activities envisaged? What will ensure the sustainability of the Action?

The Web site of the project will be maintained by SAMUI-FR, beyond the duration of the Project for 5 years, according to the proposal. From the point of view of data and tools, the implemented data model played an important role in record keeping and historical data. It
will allow any necessary incorporation of information to maintain the continuity and sustainability of the action. The developed tools in the GIS environment, will be maintained by the UPCT.

In addition, the team will continue the Action beyond the duration of the project by:

- Disseminating the results in the context of river basin management plans (Ministry, River Basin authorities), as well as attending to Conferences and Congresses in the topic.
- Publishing the more relevant results in peer-reviewed journals.
- Developing a PhD thesis in the framework of the project and to continue research on the use of SEEA tables to water management and analysis.
- Contributing in the redaction of European Guidelines on Water Balance.

2.6. How and by whom have the activities been monitored /evaluated? Please summarise the results of the feedback received.

The activities have been monitored by the Progress Reports sent to the European Commission (European Officer Dagmar Kaljaricova) according the Grant Agreement terms and conditions.

In addition, the role of CHS partner (river basin authority) was crucial. They regularly evaluated the results obtained for key tasks (such as PSUT tables and ASSET tables), for the successful completion of the project.

For some specific meetings, external experts were invited (see Table 1). The advices from these experts were important for improving the outcomes of the project. The methodologies and results were discussed during the meetings.

2.7. What has your organisation/partner learned from the Action and how has this learning been utilised and disseminated?

The development of innovative methodologies to generate information from new technologies (such as remote sensing) is a valuable contribution of this project. In summary, the final report presents the methodologies and tools developed, as well as new results at local level which contributes to improve the knowledge on this subject.

This final report, once approved by the EC, will be available 'on-line' in the Website of the project. As well as in the Universidad Politécnica de Cartagena Library services. Some specific chapters will be published in peer-reviewed Journals.
3. Project Management, Co-ordination and other Co-operation

3.1. How do you assess the project management?

The Project Coordinator keeps track of project issues, based on information supplied by the WP leaders, and by individual partners, and she was the responsible for the day-to-day management of the project keeping track of progress, in terms of time (deliverables, milestones) and resources.

Also, the coordinator was supported by an administrative officer at the Universidad Politécnica de Cartagena (OPECT team) regarding legal and financial matters, as needed.

3.2. How do you assess the relationship between the formal partners of this grant agreement (if applicable)?

The communication level between all the project partners in ASSET has been very high throughout the project duration. All the WP leaders knew very well what was happening in the other WPs, and any issues were discussed and resolved as soon as they occurred.

3.3. Is the partnership to continue? If so, how? If not, why?

The collaboration between some partners continues by other on-going projects, as well as in the preparation of new proposals. As an example, there is a close collaboration between SAMUI-FR and UPCT in the framework of FP7 EU ENSOCIO-LA project.

In addition, FW-ES is a UPCT spin off, in consequence some members of the governing board of FW-ES are professors of UPCT. Therefore, a close collaboration between both institutions is expected in the future.

In the case of CHS, this river basin authority is the coordinator of a new proposal (on evaluation) for a LIFE+ Call, with the participation of UPCT.

Summarizing, there are some new proposals and projects on going with the collaboration of the partners of this consortium, and in the future this collaboration could be reinforced.

3.4. Where applicable, describe your relationship with any other organisations involved in implementing the grant agreement:

- Associate(s) (if any)
- Sub-contractor(s) (if any)

There are no associates neither sub-contractor involved in implementing the grant agreement.

3.5. Where applicable, outline any links and synergies you have developed with other actions.

The engagement with stakeholders was appropriate. Through several actions promoted by the ASSET Coordinator with the assistance of some partners, synergies with other projects developed in the framework of the same action (Pilot projects for halting desertification in Europe), was encouraged. The main actions were listed in Table 1.
4. Visibility

How is the visibility of the EU contribution being ensured in the Action?

In all the dissemination and communications activities, as well as in the material produced, a mention to European Commission funding was clearly included.

The European Commission may wish to publicise the results of Actions. Do you have any objection to this report being published on DG ENV website? If so, please state your objections here.

No, any objection.
5. Comments on Financial implementation

This part of the technical report should include the following points: overview of cost incurred and any relevant issues from the partnership agreements (if applicable). Please give sufficient detail to establish a clear link between technical activities and costs declared in the financial report and attach a copy of the completed Consolidated Cost Statement table from your Final financial report.

The financial report is on-going (not finished yet). In consequence the financial information included in this section is still under checking.

<table>
<thead>
<tr>
<th>Participant Cost Statement Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name of participant reporting own costs: <strong>FUTUREWATER</strong></td>
</tr>
<tr>
<td>Part A: Eligible Rate %</td>
</tr>
<tr>
<td>Personnel</td>
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<tr>
<td>Travel and subsistence</td>
</tr>
<tr>
<td>Equipment</td>
</tr>
<tr>
<td>Sub-contracting / External assistance</td>
</tr>
<tr>
<td>Other direct costs</td>
</tr>
<tr>
<td>Indirect costs</td>
</tr>
<tr>
<td>TOTAL ELIGIBLE COSTS</td>
</tr>
</tbody>
</table>

* eligible costs x EU-funding rate OR maximum EU-contribution, whatever is lower!

<table>
<thead>
<tr>
<th>Name of participant reporting own costs: <strong>CONFEDERACIÓN HIDROGRÁFICA DEL SEGURA</strong></th>
</tr>
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<td>Part A: Eligible Rate %</td>
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* eligible costs x EU-funding rate OR maximum EU-contribution, whatever is lower!

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Name and title of the Co-ordinator: Dr Sandra G. García Galiano

Signature: ……

Location: …Cartagena, Spain ……………………

Date report due: …30/04/2015…………………Date report sent: …30/04/2015………………