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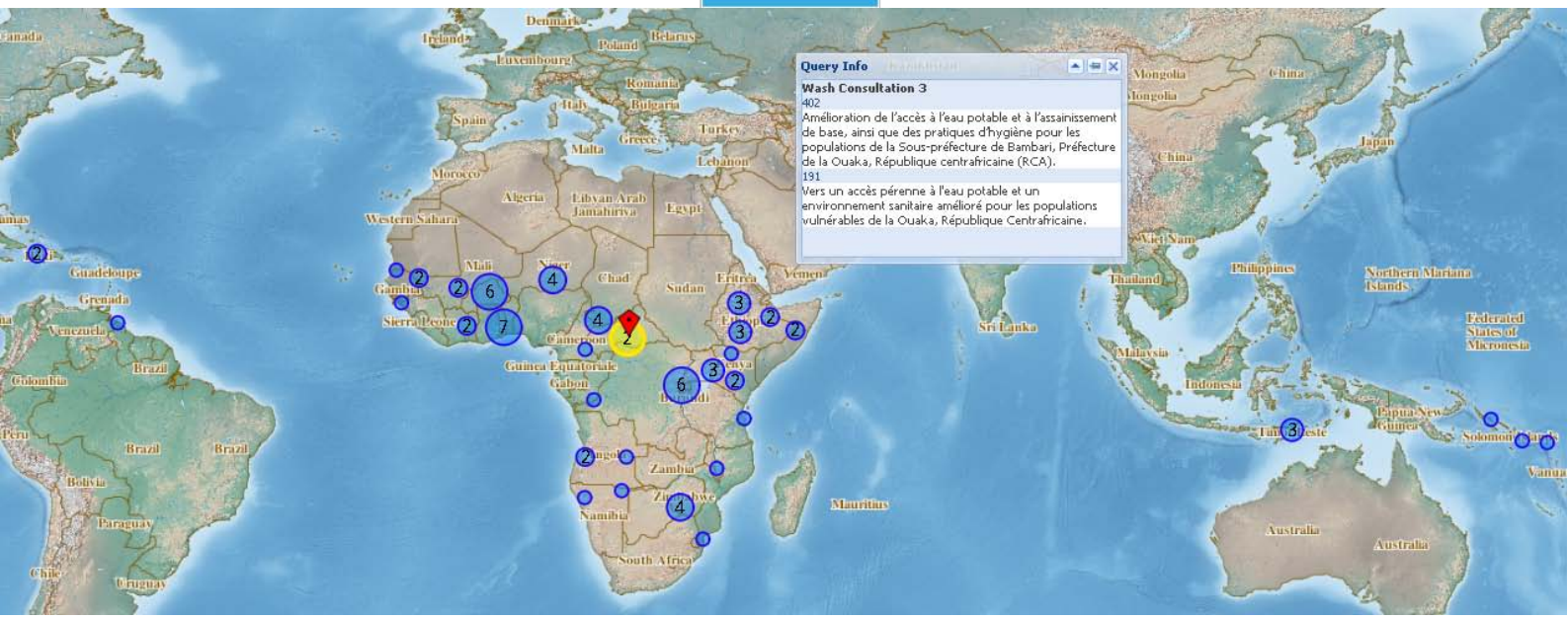

J R C T E C H N I C A L R E P O R T S

Administrative Arrangements FED 2009/217-674 and 2009/217-833

Global Evaluation and Analysis of the Water and Energy Facilities

Water and Energy facilities InfoRmation System (WEIRS)

Vanessa FOURCAUDOT, Beatriz VIDAL-LEGAZ,Cesar CARMONA-MORENO,
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Abstract

This report presents the **Water and Energy Facilities Information System** (WEIRS) project. It has been carried out in collaboration between the JRC Environment and Energy Institutes (IES and IE) and the Water and Energy Facility teams of DG DEVCO. Here we present the results for the Water Facility part of the project, referring sometimes to processes shared with the Energy Facility component.

WEIRS is a set of two on-line databases holding information on proposals submitted to the successive calls for proposals (CfP) of the Water and Energy Facilities since 2004. The databases are accessible on-line (restricted) through, respectively, the AQUAKNOW.net and EUEI.net web portals. Geographic, technical, financial and administrative data on around 2500 proposals has been introduced in the different databases. The system allows users:

- ✓ Searching the proposal database according to different information fields
- ✓ Visualising and edit proposal data sheets
- ✓ Producing proposals summaries
- ✓ Displaying the search results on customized maps, which also include environmental and socio-economic information
- ✓ Exporting thematic project data in "csv" format (readable by Excel), which allows for off-line data analyses

The functionalities of the WEIRS information system improve technical data management and facilitate data analysis. Particularly, the centralization of proposals data in the databases has dramatically bettered the feasibility of cross-call analyses and the capacity to follow track of actors among countries and calls.

The WEIRS system was already used during the selection procedure of the last Water Facilities call (2010), for what it was useful to provide a pre-evaluation reference as proposals were arriving to DG DEVCO. Once the selection procedure is finished, the information system and the data analyses presented in this report are used here to give a "multi-point of view" overview of the 2010 Water Facility CfP, as well as to compare the profile of awarded proposals among the three WF calls. The results give feedback on the appeal and impact of the CfP, which might improve the design of future calls, e.g. better orient the requested data (both technical and financial), the design of the applications, pre-identify the profile of the actors to be involved, better identify the selection criteria, ...

Although some data cleaning is still needed, the results of the analyses presented in this report have already given interesting insights into appeal and possible impacts of the Water Facilities. For instance, we assess the appeal of the call in different ACP regions and countries; the engagement of different actors; activities to be implemented; sources of funding and its allocation, etc. We also identify the profile of applicants awarded in the 2010 WF call and show the main differences found among WF proposals from different calls. This would allow the Commission to assess the evolution of the different WF calls and actors involved.

Following the coherence among the different developments being implemented by JRC in collaboration with DEVCO, the WEIRS system has been fully integrated in the AQUAKNOW platform with a restricted access (only some few staff from DEVCO-C2 and JRC staff involved in the project have access to the WIERS data and analysis).

The AQUAKNOW.net platform offers far more advantages that could be of interest for the management of the Facilities at several steps of the process. The possibilities to securely fill-in data forms on-line, to generate batches of summarizing project reports, to upload different types of proposal documentation

could alleviate the burden management of the WF and should be considered as to exploit the WEIRS system to the maximum of its capabilities.

The WEIRS system was presented to the EC delegations in Western Africa during the last DEVCO water seminar in Cotonou (Benin) on 23rd May 2012. During this meeting it was suggested by EC delegation staff that the WEIRS system should be accessible to the EC delegations (water sector staff) and an extension of the system for monitoring the projects (technical data) could be of interest for the Commission. This would allow a better knowledge management of the projects funded by the Commission, increase the quality of the project monitoring management and better prepare future EC calls.

Glossary

AA	Administrative Arrangement
ACP	Africa-Caribbean-Pacific
AIDCO	International Cooperation Service of the European Commission
CfP	Call for proposals
CN	Concept Note
CRIS	Common Relex Information System. CRIS contains the financial and operational management data of the projects and programs.
DB	Database
DEVCO	Directorate General of the European Commission for Development and Cooperation – EuropeAid
EC	European Commission
EDF	European Development Fund
EF	Energy Facility
EF2006	EF call for proposal launched in 2006
EF2010	EF call for proposal launched in 2010
EU	European Union
EUWI	European Water Initiative
EUEI	European Energy Initiative
FA	Full Application
GIS	Geographic Information System
IE	Institute for Energy of the JRC
IES	Institute for Environment and Sustainability of the JRC
JRC	Joint Research Centre
MDG	Millennium Development Goal
PADOR	Potential Applicant Data On-Line Registration
PCD	Partnership for Capacity Development
REC	Requested EC funding
SIDS	Small Island Developing State(s)
TEC	Total Eligible Costs
W&EF	Water and Energy Facility
WaSH	Water supply, Sanitation supply and Hygiene promotion
WEIRS	Water and Energy facilities InfoRmation System
WF	Water Facility
WSSD	World Summit for Sustainable Development

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PART 1: THE WATER AND ENERGY FACILITIES INFORMATION SYSTEM

1.1. The ACP-EU Water Facility Call for Proposals

The ACP-EU Water Facility was launched in 2004 by the EU Council as a response to the need for additional funding to address water and sanitation in the ACP region. Its overall objective is to contribute to poverty reduction and sustainable development through the achievement of the specific Millennium Development Goals (MDGs) and World Summit for Sustainable Development (WSSD) targets on water/sanitation in those countries, i.e. to halve by 2015 the proportion of people without sustainable access to safe drinking water and basic sanitation, which is essential to reduce child and maternal mortality (MDG 4 & 5) and combat diseases (MDG 6). The Water Facility aims as well at improving water governance and management.

Under the 9th EDF, € 414.5 million have been awarded by the Water Facility to 175 projects in 2005 (WF 1) and 2007 (WF 2). Under the 10th EDF, € 200 million will be awarded to projects through two calls for proposals:

- **Water, Sanitation and Hygiene Promotion** (WaSH) for the MDGs, launched on 11th February 2010. 67 projects out of 539 have been selected for funding
- Partnerships for Capacity Development (PCD) in the ACP Water and Sanitation Sector, launched in February 2010.

In this report and the WEIRS database, we display information from the **2004 and 2006 CfPs** as well as information regarding the **WaSH component of the 2010 call**. From here on, the successive calls for proposals will be named as follows:

Call names in WEIRS	EDF	Year
WF 1 / WF 2004	9	2004
WF 2 / WF 2006	9	2006
WF 3 / WF 2010/ WF 2010 WaSH	10	2010

Table 1.1: Names of WF calls in the WEIRS system.

The last Water Facility CfP (2010), on which we mostly focus in this report, according to the *Guidelines for Gran Applicants*:

- Aims at providing funding for *water and sanitation basic infrastructure and hygiene promotion projects*
- Focuses on the *most vulnerable and needy*, *in rural and peri-urban areas*
- Tries to promote the use of *small-scale appropriate technologies*, *and lead to improvements in health, education & socio-economic development*
- Requires that each project includes the active involvement of local partners
- Encourage projects that include capacity development of local people

The target of the call was the ACP region (Figure 1.1) that, as displayed in the following figures, has a very challenging state in terms of drinking water supply (Figure 1.2) and sanitation infrastructure (Figure 1.4), especially in rural areas (figures 1.3 and 1.5). Particularly low values of water services are found in most countries from the Sub-Saharan Africa.

Although many improvements in water supply and sanitation have been achieved in the last years, the situation is still very challenging, especially for the achievement of the sanitation MDG (UNICEF and WHO, 2012).

The lack of improved water supply and sanitation infrastructure has a strong negative impact on health and socio-economic development, as it will be shown in section 2.2.3. This critical situation might even worsen in the future, since ACP region countries show among the highest population growth rates both for rural and urban areas, as it will be also displayed in section 2.2.3.

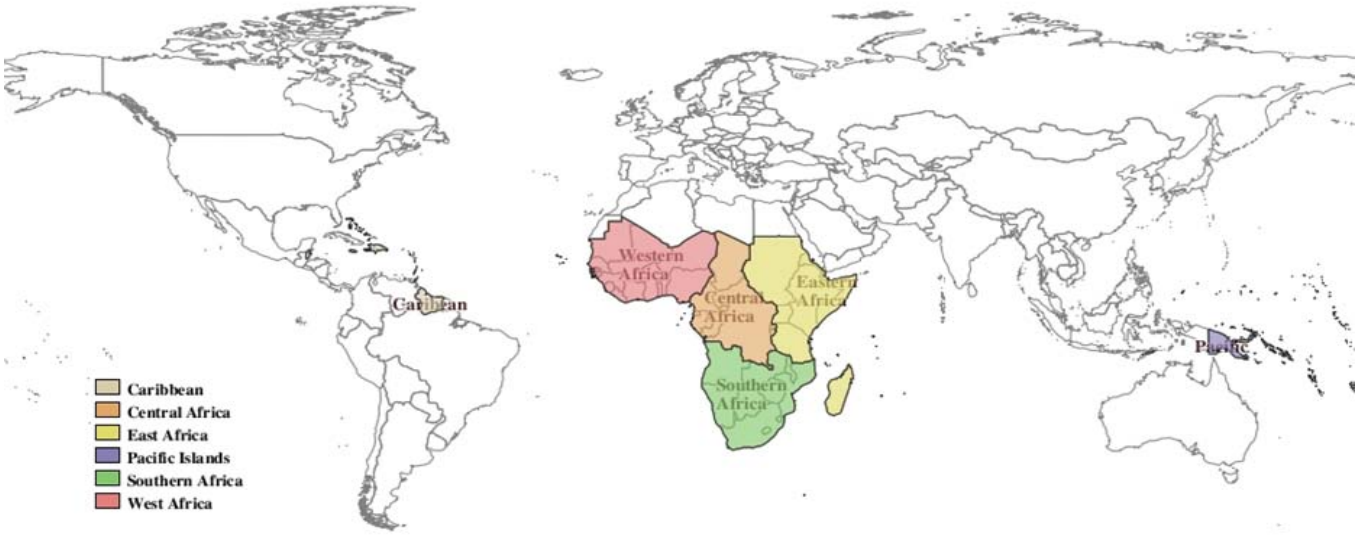


Figure 1.1: ACP regions.
Map produced with the online platform that will be described in the next section.

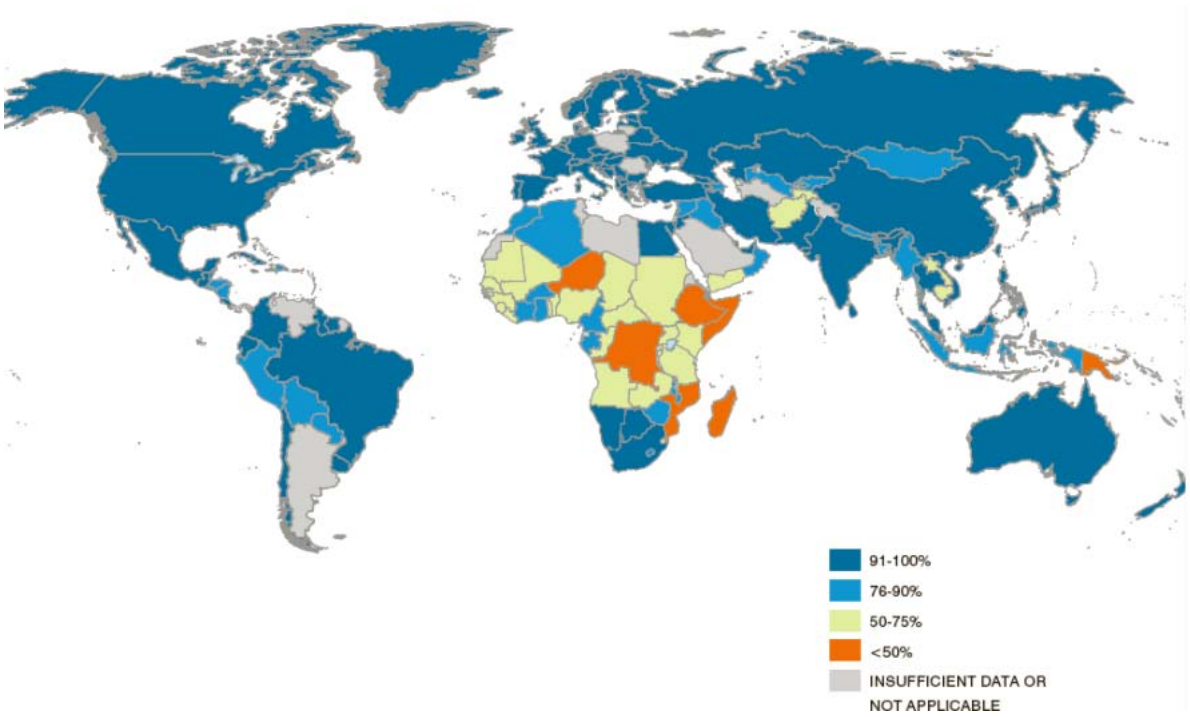


Figure 1.2: Drinking water supply coverage in year 2010 (UNICEF and WHO, 2012).

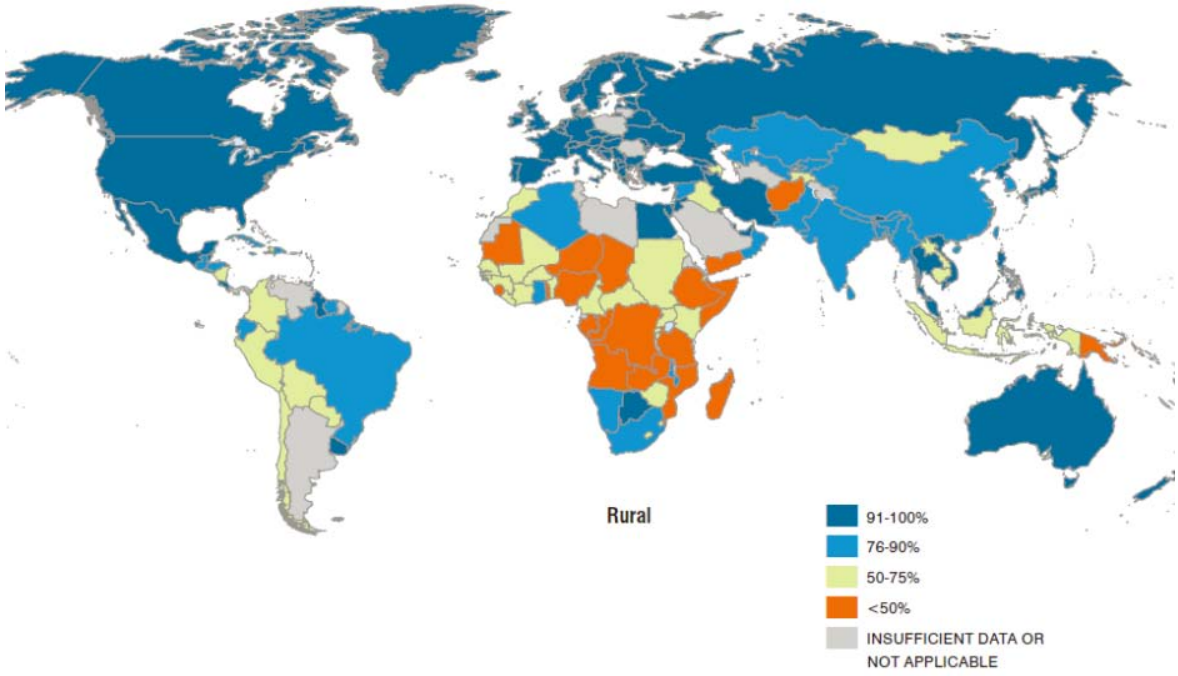


Figure 1.3: Drinking water supply coverage in rural areas in year 2010 (UNICEF and WHO, 2012).

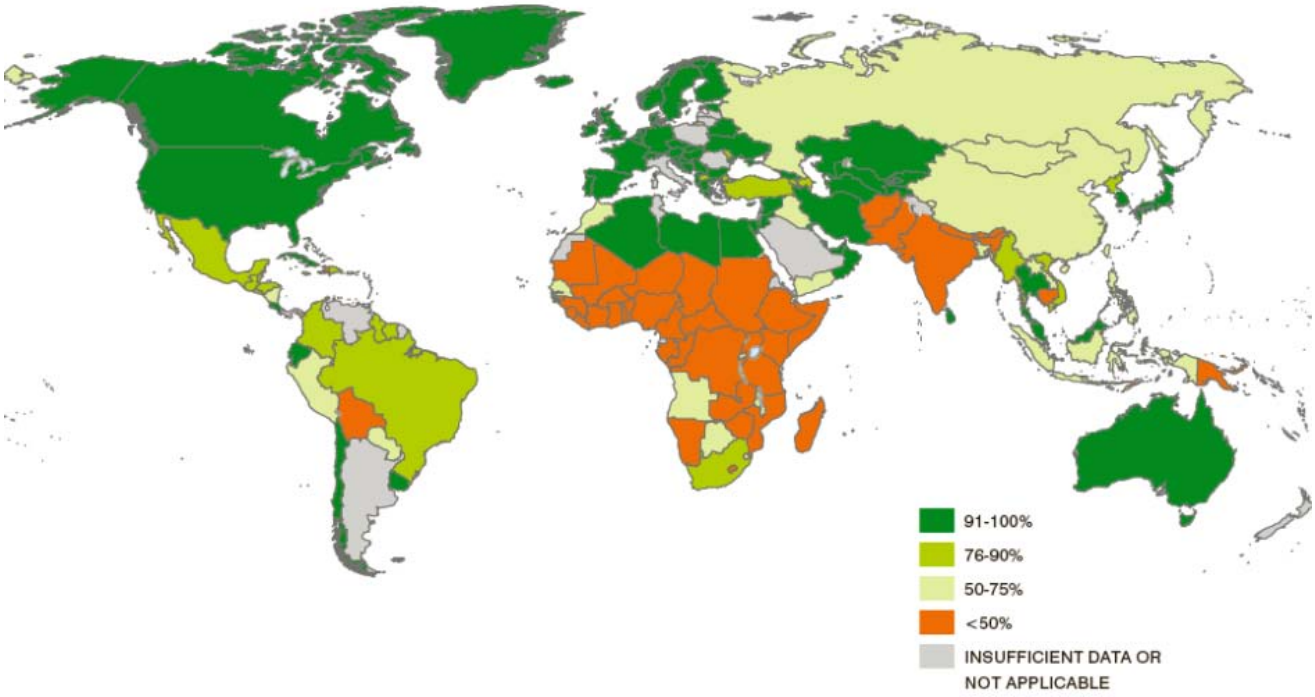


Figure 1.4: Sanitation coverage in year 2010 (UNICEF and WHO, 2012).

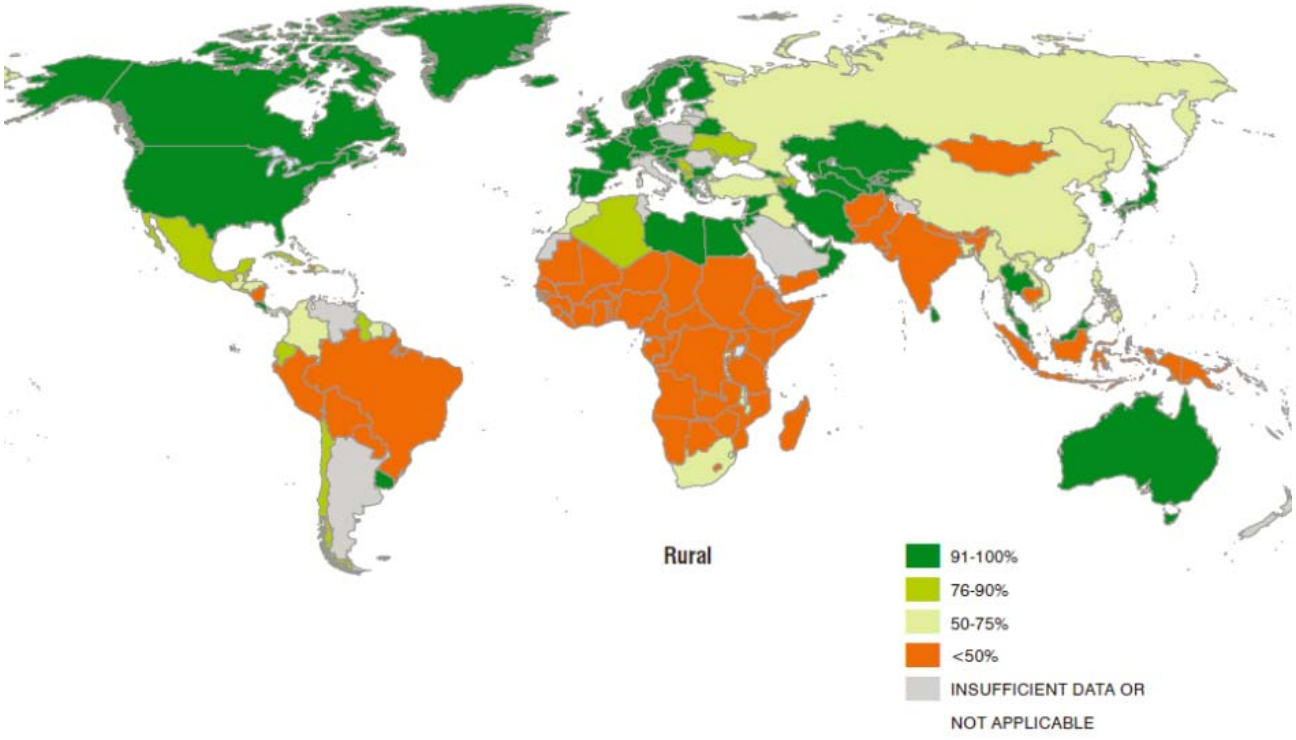


Figure 1.5: Sanitation coverage in rural areas in year 2010 (UNICEF and WHO, 2012).

1.2. The Water and Energy facilities InfoRmation System (WEIRS) project

The Water and Energy facilities InfoRmation System (WEIRS) project has been launched by DG DEVCO and the JRC as to provide technical support to DG DEVCO for:

- Centralizing the project and applicant information for a better data management
- Assessing the quality and impact of the projects funded by the Facilities
- Designing the future calls for proposals of the Facilities on the basis of the lessons learnt
- Making the Water and Energy Facilities (WF and EF) more transparent and visible

Several modifications to the initial *Administrative Arrangement* and *Inception Note* have been implemented in joint agreement between DG DEVCO and the JRC during the WEIRS project development. Within the project flexibility allowed in the *Terms of Reference*, these modifications were undertaken in the view of providing DG DEVCO with a more operational and flexible system than initially foreseen. Thus:

1. WEIRS consists of two separate databases for the EF and the WF
2. The databases hold the data of 2010 EF and WF calls and are structured accordingly. The data of past calls fitting into the database structure and provided by DG DEVCO in "xls" format (Excel) was also included (see section 1.4)
3. The data has been encoded by the JRC using the project data provided by DG DEVCO in the form of project summaries and lists in "xls" format (Excel) (see section 1.4 and annexes 3-5). Since no specification document for data cleaning was provided by DG DEVCO, the JRC cleaned the data as described in section 1.5.1
4. The time schedule of the different project implementation phases has been modified as to follow the schedules of the calls for proposal and allow the JRC to implement the new specifications and system improvements within appropriate time limits.

1.2.1. The web-based online databases

The JRC has designed and implemented two web-based online databases (Figure 1.6) that have been filled with data from awarded and non-awarded projects of past and ongoing calls for proposals. Both systems were developed in an incremental way. This means that a preliminary operational version of the system was made available to the final users at each development phase so that they may provide the developers with quick feedbacks for improving the system.

Due to differences in project information structure and nature (especially the technical data) and time schedules of both Facilities, DG DEVCO asked the JRC to design and develop two separate databases and web-based systems for the EF and WF instead of one unique database and system as foreseen in the Administrative Arrangement. Both systems have restricted access (exclusively WF and EF teams and JRC staff involved in the project) through Internet. The databases are located at:

WF database is accessible at: **http://www.aquaknow.net/water-facility/data/projects**

EF database is accessible at: **http://www.euei.net/wg/weirs/consultation**

Figure 1.6: Diagrams with a screenshot of the main pages of the two online platforms.

Both databases are accompanied by a technical reference and user manual that are accessible within the online platforms. For project management reasons, the inception note serving as technical reference has been published in PUBSY under the reference JRC 59279. **In the following we focus on the platform and data of the WF calls for proposals and information related to them.**

The Water Facilities online database

The WF database is hosted in the AquaKnow online platform. This platform is a collaborative online work space dedicated to the water sector. The free and open source content management system[1] DRUPAL was used to implement the online platform, which provides a set of tools to analyze, manage and share information coming from the WEIRS database. Thus, it includes tools for uploading and editing data sheets projects, a query table builder interface from which data can be filtered using different fields (Figure 1.7), and a map tool for visualizing project location and creating customized maps.

All maps displayed in the following were produced using the tools of the AquaKnow online platform.

[1] Software to publish different type of data on the web.

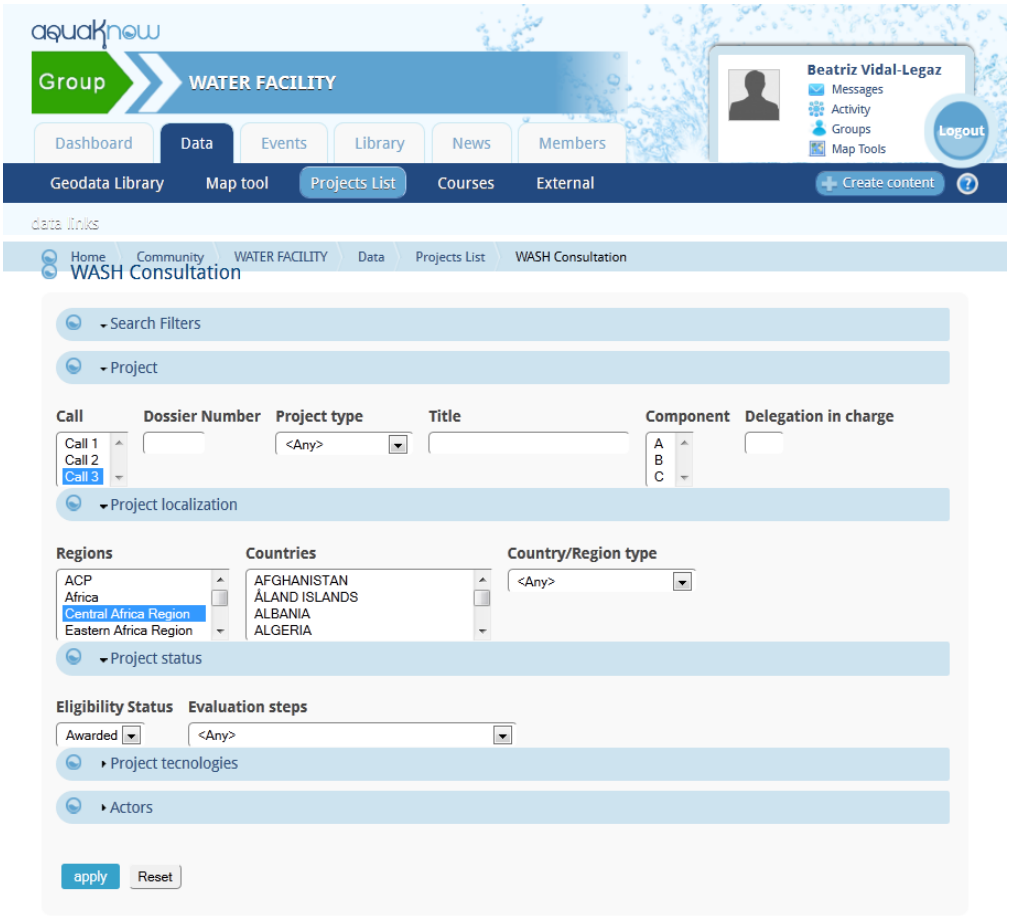


Figure 1.7: View of the query table builder interface of the Water Facilities project list in the Aquaknow.

Once proposals information is filtered it can be downloaded in a variety of formats such as "PDF", "KML" and "xls". This includes the option of producing project synopsis and project reports, which display information on different predefined fields such as actors, funding or technologies (Figure 1.8):

- One-page-synopsis: this synopsis was implemented on demand of the WF team during the proposal evaluation. It presents on a single page the general and financial information and well as some charts that are important for evaluating the proposal (see example in Annex 1)
- Project report: this project synopsis has been implemented as to provide the WF team with 1 to 2 pages project synopses that can be distributed internally as examples of the projects funded by the Water Facility (see example in Annex 2)

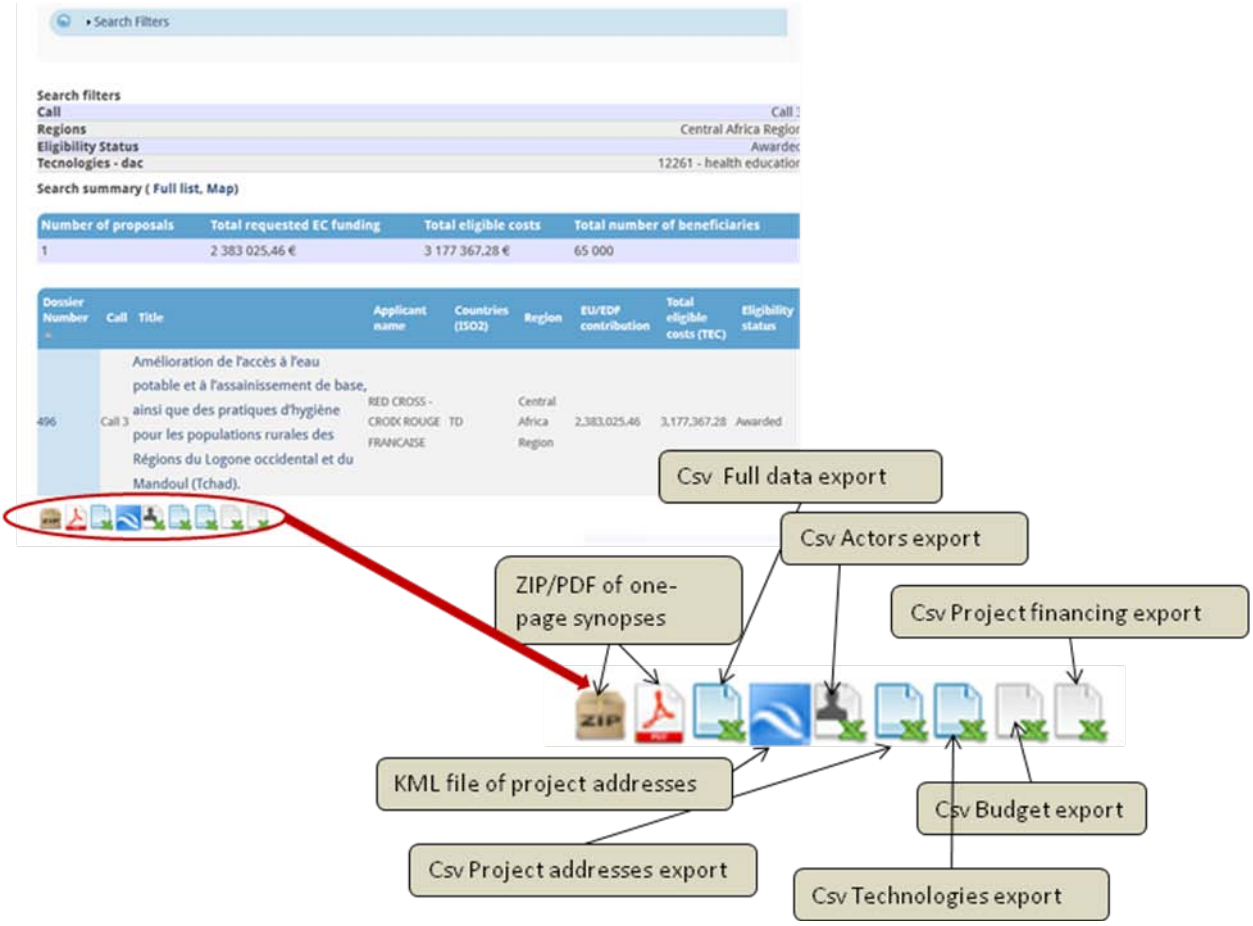


Figure 1.8: Exports options for project list in the Aquaknow online platform.

Additionally, and as mentioned above, the platform includes a map tool for visualizing projects location and creating customized maps. The tool can be accessed by clicking in the option *Map*, under the summary of the query results (Figure 1.8). In the map, some information coming from the proposals can be displayed (project locations, funding of each call, etc). There we can display two types of layers: layers that are dependent on the query we have done before; and layers whose information is independent on this query. As examples of layers that depend on the query results, we can display the number of projects per country or per region that fit the query settings, in the form of thematic layers and vector layers (figures 1.9 and 1.10). We can additionally display graphics with the share of projects and funding for the three WF calls, which again, fit to the query settings (Figure 1.10).

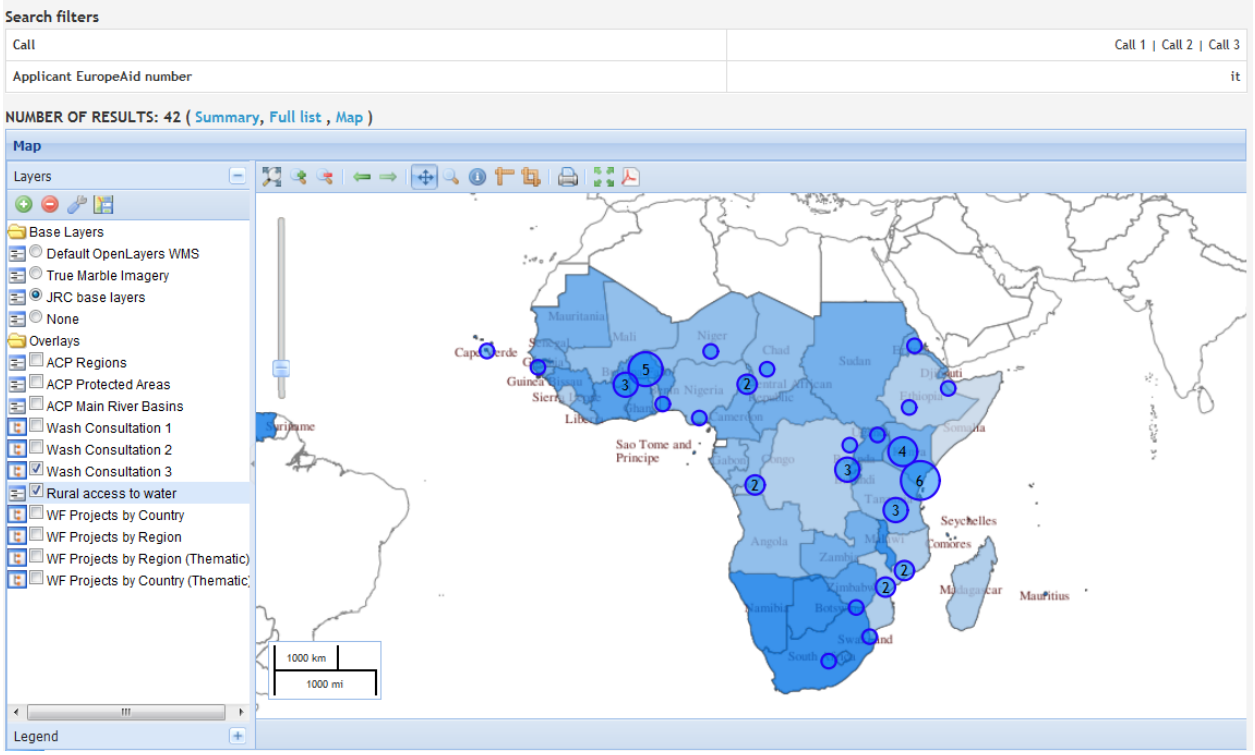


Figure 1.9: Map tool displaying two types of layer: dependent and independent from projects query results. Blue circles (vector layer) display information dependent on the query (Wash consultation 3, which corresponds to the number of projects per country). Background blue layer is independent from query results and correspond to rural access to water at national level.

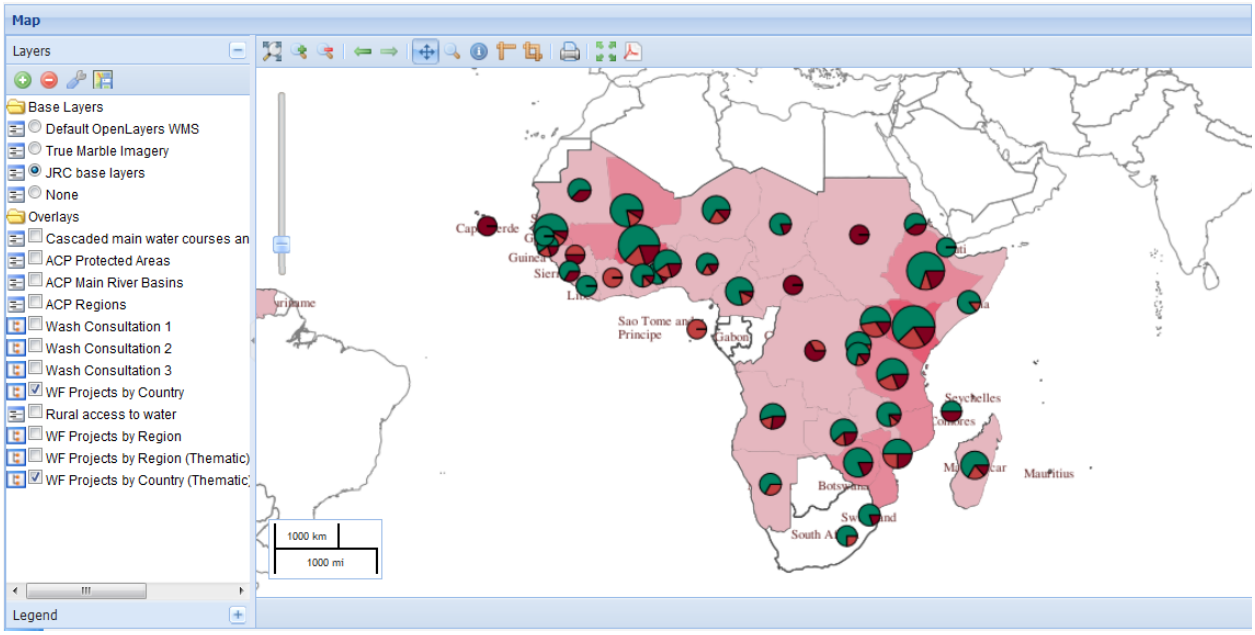


Figure 1.10: Map tool displaying information from projects queries in the form of graphs. In this example the fraction of projects for each country and for each call, according to the projects query result, is displayed (WF Projects by country). Pink background layer also depends on query results and corresponds to the total number of projects for each country (WF Projects by country (Thematic)).

The map tool includes also layers with the specific location of projects. By clicking on the projects points on the map, we can access to information that allow us identifying proposals (Figure 1.11). There are other types of information that can be displayed by the platform: first, information contained in the internal repository, which includes geographical regions, some layers of processed information from the proposals such as funding and total number of projects of each call at national and ACP regional level, river basins, protected areas, and development indicators at country level; second, the platform connects to another set of development indicators maintained by different organizations like FAO, CIESIN, UNDP, etc, which can be also displayed here. The latter two types of information were added to the platform with the aim of providing country/region level background information, which facilitates the assessment of the proposals. More details on the use of the online platform can be found in the user manual.

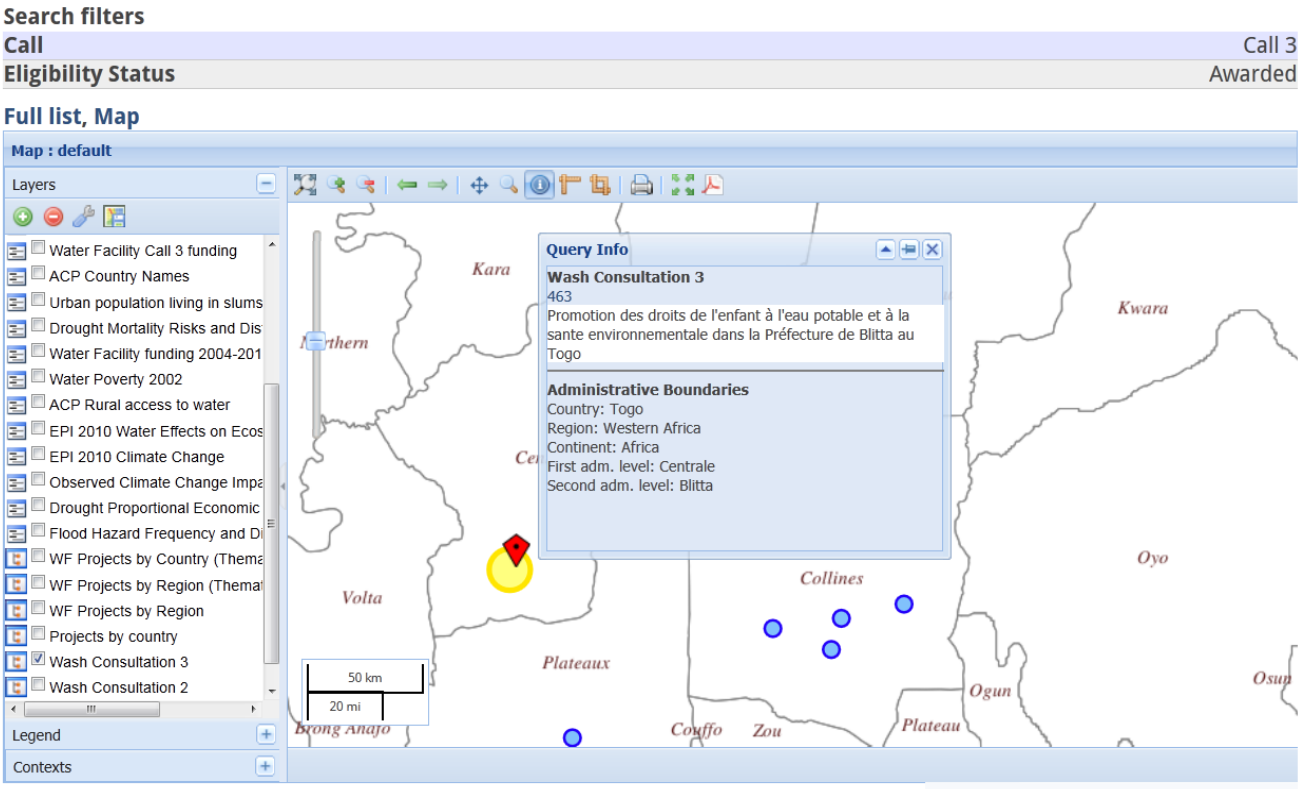


Figure 1.11: View of project location displaying project details through the map tool in the AquaKnow online platform.
Different layers that can be added to the map are displayed in the left part of the map.

The platform also allows creating specific working groups with different user profiles that determine the information the user will have access to. For instance, only members from a specific group (the Water Facility group), which includes the professionals responsible for evaluating the proposals and the JRC working team, can access and edit the information stored in the WEIRS database, in "xls" or "csv" formats according to a predefined structure.

In the following, the website, database and online tools will be referred to as "online database".

1.2.2. Communication

In part 2 of this report, the off-line analysis developed by the JRC as to produce a multiple viewpoints analysis of the achievements of the WF calls will be presented. However, several times during the proposals evaluation, the JRC provided DG DEVCO with preliminary analysis reports. They are listed here and in section 3.5 at the end of the report. A short description of each can be found in the WEIRS Intermediate report.

Up to now, the JRC has produced and collaborated with DG DEVCO to produce several publications and posters for different target groups (inter-service, public and scientific), which include the above mentioned preliminary reports:

- Poster on WF 2010 awarded proposals
- Poster on projects funded by the WF so far
- Scientific paper presented at the 2012 International Congress on Environmental Modelling and Software. Managing Resources of a Limited Planet, Sixth Biennial Meeting, Leipzig, Germany:
    - JRC72320- The Water and Energy facilities InfoRmation System (WEIRS)
- JRC internal publications of the project technical documents and preliminary statistics realized for DG DEVCO:
    - JRC59279– Global Evaluation and Analysis of the Water and Energy Facilities - Implementation of the Water and Energy Facilities InfoRmation System (WEIRS). **(WEIRS Inception Note)**
    - JRC59280– Global Evaluation and Analysis of the Water and Energy Facilities of the EC - **Preliminary Statistics** on Proposals Submitted to the Water Facility 2010 WaSH Call for Proposal
    - JRC62621– Water and Energy Facilities Information System (WEIRS)- **Intermediate Report**

1.3. The WEIRS data sources

The main data sources for the WEIRS database were application forms annexes from 2010 and past calls, CRIS exports and project lists provided by the WF team. The information flux from applicant to WEIRS DB can be represented as follows:

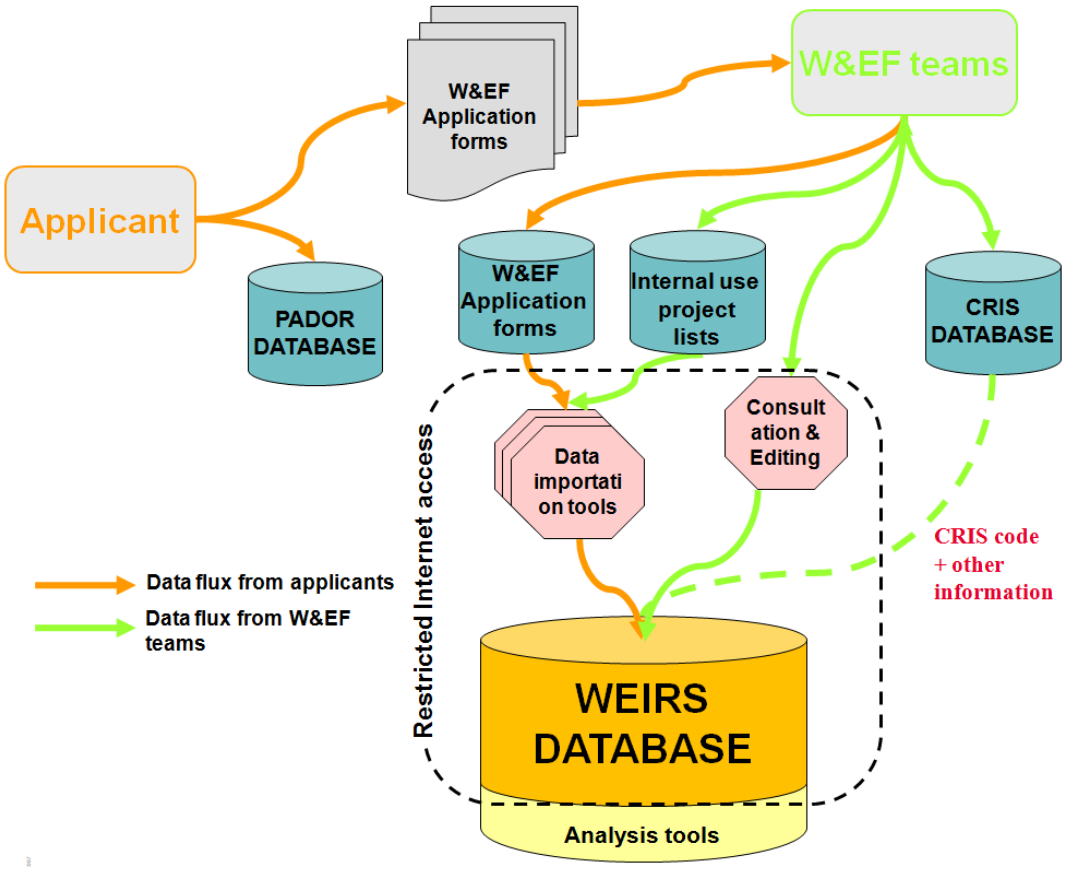


Figure 1.12: Project data flux into WEIRS database.

1.3.1. Application files of 2010 call for proposals

For the 2010 CfP, data came from the application files that were submitted to the W&EF unit in paper and electronic versions (CD-Rom). These documents were stored by the W and EF unit. The JRC was provided with an electronic copy of the following documents, of which an example can be found in annexes from 3 to 5:

- EF: Annex A (called Concept Note) and Annex 4 to full application in English and French (here Annex 3). The Concept Note is a one-page "xls" format (Excel sheet) with general project information: title, location, applicant, partners, some technical characteristics, requested funding, total project costs and contact details. Annex 4 takes up this information in more detail as well as socio-economic characteristics of the project area. It is made up of 3 thematic sheets: 1. Basic information, 2. Technical information, 3. Economic and financial information.
- WF: Annex F to WaSH full application form (here Annex 4). Annex F is similar to the Annex 4 of the EF, but adapted to the context of water and sanitation issues. It is composed of 4 sheets: I. Overview, II and II.bis. Past experience (of applicant and other project actors), III. Budget and project finance. It is important to mention that 169 Annex F (out of 539 proposals) were not given to the JRC team and could therefore not be included in the database.

1.3.2. Past calls information

Apart from data of the 2010 WF call, information of the previous call that was fitting to the database structure was also integrated into the system. Table 1.2 shows the number of WF proposals for each call that were included in the database, for which at least proposal number and title was available.

Call	Total proposals	Awarded projects
WF 2004 (Call 1)	799	97
WF 2006 (Call 2)	492	78
WF 2010 WaSH (Call 3)	539	67

Table 1.2: Number of proposals for which data is available in the online database.

For the WF calls 1 and 2, the JRC-team was in possession of the following files:

WF

- Per JRC.xls: the so-called "Claudio's database" sent by S. Lucatelli on 18/12/09. This file contains information about the awarded projects of the first WF calls for proposals. The file contains data on general characteristics of the projects as well as details on actors, technologies and beneficiaries.
- 1st Call FINAL summary all 800 proposals.xls: list of all received proposals to the 1st WF call for proposal. This file holds data on general characteristics of the projects as well as details on actors (sent by M. Lambert de Rouvroit on 23/06/11).
- 2nd Call FINAL summary all 544 proposals.xls: list of all received proposals from the 2nd WF call. This file holds data on general characteristics of the projects as well as details on actors (sent by M. Lambert de Rouvroit on 23/06/11).

1.3.3. CRIS data

The JRC had no access to the CRIS database consultation, therefore the WF unit has regularly provided CRIS project list exports. These exports hold general project data such as project title, countries where the project takes place, applicant name, applicant PADOR number, applicant legal status, delegation in charge, requested funding, total project costs and evaluation scores.

1.4. The WEIRS data

IMPORTANT REMARK: The following paragraphs concern the data for WF Call 3 proposals and awarded projects from Call 1 and Call 2. The work done on Call 1 and 2 rejected proposals is described separately in section 1.5.2.10 below. We also present here (in section 1.5.2.9) a set of development indicators obtained through the Aquaknow platform, which will be used to understand the context of the countries targeted by the proposals submitted to the WF calls. It is also important to keep in mind that, as above mentioned (section 1.3.1), 169 Annex F (out of 539 proposals) were not given to the JRC team and their information is therefore lacking in the database.

In this section we first explain the data cleaning process done previously to data integration in the WEIRS database. Data cleaning, although not initially foreseen in the WEIRS administrative arrangement, was undertaken and meant an important share of the time and effort due to data analysis. The applicants generally filled in the forms quite accurately and willingly, but data cleaning was necessary as to be able to perform the analyses. Data cleaning means removing erroneous data, filling in data gaps and data harmonization.

After data cleaning specifications, we detail and describe the data that the WEIRS system storages and is able to display. It includes information on project location, actors, project type and duration, technologies and activities, financing, beneficiaries, etc. It also includes the proposals eligibility status. All these data can be found in the different *exports* that the user of the online platform can download: actors, financing, full export, etc (see Figure 1.13 above). In this section, some additional specific remarks on data processing and cleaning for specific fields are given in each of the thematic sections that follow.

1.4.1. Data cleaning

A general data cleaning process was carried out together with both the WF and EF data. Some specific remarks on data accuracy are given for each data group in section 1.5.2. The following were the general data checks realized:

- Internal consistency of the raw data. These are mainly automatic checks which allow removing obvious errors and filling data gaps.
    - Project location: correspondence between country, region and all geographic information provided by the applicants (upon import into DB)
    - Budget: check sums, requested funding < 75% total project costs
    - Value is within the expected range: e.g. beneficiaries > 100 people, total eligible costs (TEC) are within the range given in the application guidelines
    - Actor legal status: the actor names were scanned for words giving explicit indications about the legal status (e.g. ministry, association, NGO, university, region, commune, etc)
    - Applicant origin and PADOR: the geographic information of the PADOR number was considered as more reliable than the indications of the applicants and thus prevailed
    - Data format (number, text...) corresponds to the expected format
- Comparison of WEIRS DB data with data provided by the WF & EF teams from other EC internal databases, in particular CRIS. This concerns general characteristics of the

projects such as project title, general project financing, applicant data and project location. The data from these databases was considered as the most reliable and thus replaced the WEIRS database data when a difference was detected.

1.4.2. Data displayed on the platform

1.4.2.1. Project location

The geographical information system of the online database allows attributing several locations to a project since it could be implemented in several locations (Figure 1.13). Each location point is called "Address".

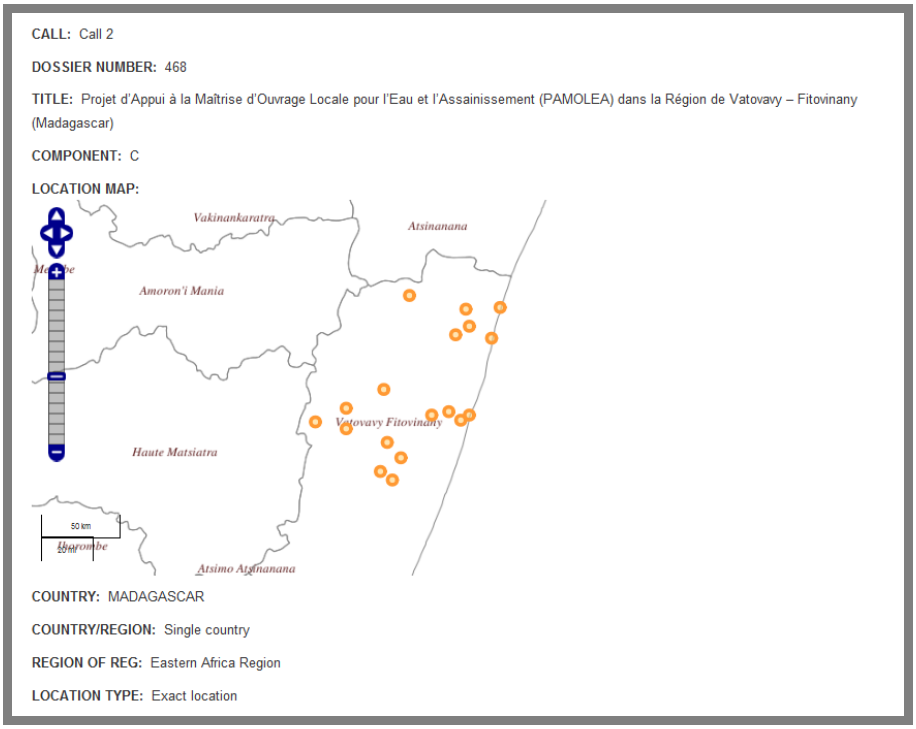


Figure 1.13: Example of addresses for a project in Madagascar.

The attributes of the addresses fields are presented in Table 1.3, and can be found in the "project addresses" export of the online platform. These attributes were made as generic as possible because the administrative subdivisions varied from country to country. For instance, the same denomination such as "region" or "province" may not correspond to the same subdivision level. Furthermore, the administrative subdivisions of some ACP countries were modified recently and were still poorly documented.

Address field	Description	Value	Example 1
Call	Number of the WF call	1, 2, 3	3
Dossier Number	Dossier number	*<Dossier number>*	496
Offset	This allows numbering the different addresses	Starts at 0	0
Type	This field indicates how precise the address coordinates are (see below)	EXACT, APPROXIMATE, DEFAULT, COUNTRYWIDE	APPROXIMATE
Region	ACP region	WA, CA, EA, SA, P, C (see Annex 5)	CA
Country	ACP Country	Country ISO-2 code	Tchad
ADMR1	First level administrative subdivision		Logone occidental
ADMR2	Second level administrative subdivision		Tschangu district
ADMR3	Third level administrative subdivision		
Municipality/Commune	Town or commune		Nsele
Village, neighborhood	Subdivision of a municipality or commune. A commune may consist of separate villages, a town be divided into neighborhoods	*<Name of the subdivision>*	quartiers périphériques MPASA1, MPASA2, MPASA3 et MPASA4
Complementary information	Complementary information on the project location(s)		19 villages et un quartier de Moundou
Latitude	Latitude		8.5995
Longitude	Longitude		16.0901

Table 1.3: Description of the address fields, which can be found in the export of the addresses.

Data processing and cleaning

In a first step, the geographical data of the projects was reorganized into addresses. Due to the varying availability of precise geographical data, an address can represent the exact location(s) or the area(s) where the project is implemented. To account for this, an "address type" field was created, which can be:

- EXACT. If the address is a human settlement (e.g. village, town, neighborhood...), it means that the project is implemented there. If it is an administrative subdivision, this means that the project is carried out at this level. If it is a region described in the complementary information field, this means that the project is implemented somewhere in the radius of a few tens of kilometers around the given latitude-longitude coordinates.
- APPROXIMATE. It means that no precise information about the project location is available. If the address is an administrative subdivision, this means that the project is

carried out somewhere inside this perimeter. If it is a region described in the complementary information field, this means that the project is implemented somewhere in the radius of a few hundreds of kilometers around the given latitude-longitude coordinates.

- DEFAULT. It means that no location information other than the country was available. The project was placed arbitrarily around the centre of the country as to avoid overlapping if there are several projects without precise location data and make the project distribution maps more readable.
- COUNTRYWIDE. It means that the project has a countrywide implementation perimeter. This is especially the case for proposals submitted by state actors and that concern WaSH campaigns.

Often, the geographical coordinates of the project addresses were incomplete. Thus different open-source web geodatabases were used to retrieve them in batch:

- GPS Visualizer: http://www.gpsvisualizer.com/geocoder/
- Batchgeo: http://batchgeo.com/
- Geonames: http://www.geonames.org/maps/google_17.048_-13.921.html

When this gave no result, the coordinates were searched for manually using *Wikipedia* and the *Google* search engine.

In a second step, the centroid of the project addresses was calculated. The resulting coordinates were taken as the project "one point location" and inserted in the "Latitude" and "Longitude" fields of the project overview (available in the project list export, but not in the address export).

For projects implemented in more than one country, the addresses were added if more precise information than the country was known. The centroid was not calculated since it doesn't have much sense in this case.

1.4.2.2. Actor characteristics

Project actors were applicants, local and non-local partners, associates and co-donors. For each project, the different actors were identified using sheets II and II.bis and the project financing part in sheet III of Annex F. Partners were called as local if they were from the country where the project takes places. This information was generally filled in well in the application forms. Co-donors were defined as the actors listed in the project financing part (sheet III), which had not been listed as actor in sheets II and II.bis.

The actors' characteristics that are displayed by the platform, and which can be obtain in the *actors* export, are shown in Table 1.4 below. As can be seen, the actor data structure of Annex F was extended as to include more data and be able to produce more comprehensive and operational actor lists. Additionally, as to be able to perform more detailed actor analyses, the actor legal status was redefined (as displayed in Table 1.5). The newly defined categories are inspired from the work done in the EF and the PADOR categories and adapted to the Water Facility actor context.

Actor characteristic	Retrieval information	**Categories** (if applies)
Actor type	From applicants	Applicant Local Partner Non Local Partner Associate Co-donor
Name	From applicants	*<Name>*
Acronym	From applicants	*<Acronym>*
PADOR number	As indicated by the applicant. For State Actors and EU-regions local authorities, the PADOR number of the lists provided by the EF team was used when there was no PADOR number.	*<Number>*
Country	Automatically retrieved from the first two letters of the PADOR number. If there is no PADOR number, as indicated by the applicant (after cleaning).	(See Annex 5)
Region	Automatically retrieved from using country of origin and additionally "Non ACP international organisation" and "Other" for non-EU-non-ACP organisations.	Europe Western Africa Southern Africa Eastern Africa Pacific Caribbean
Legal type	From applicants	Public Private
Legal status	From applicants	International Organisation State actor Local or decentralised authority Bilateral/multilateral development agency Network/Federation Water and Sanitation operator Professional or industrial organisation University/Research institute/Education NGO Private company Financial institution Foundation Trade Union Other
Coverage	From applicants	Local National Regional Continental International
Registration year	From applicants	*<Registration year>*
Contribution to project financing	Filled in with data from "Project financing" part of Sheet III. Budget and Project Finance When the exact contribution amount is not known, it was set to 1.	*<Amount>*

Table 1.4: Actor characteristics in the online database.

Table 1.5 presents the redefined *Legal status* categories and its relationship with the variable *Legal type*.

Legal status category	Description	Legal type category	Examples
International organisation	International public sector organisation set up by intergovernmental agreements acting at regional or global scale	Public	UN organizations, Regional Economic Communities
State actor	National/Central Authority or Administration of a State or Organisation in charge of executing a policy drawn out by a National public body	Public	Ministries (also Foreign affairs, international cooperation and W/S), Governments, Embassies
Local or decentralised authority	Decentralised representatives of a Sovereign State at province, region, county, municipality level	Public	Regional administrations, Municipalities
Bilateral/multilateral development agency	Organisation designated by national authorities to implement bilateral/multilateral cooperation activities	Public Private	AFD, GTZ, USAID, ADA, CTB
Water and sanitation operator	Organisation in charge of the management on the field of drinking water and sanitations facilities, river basins, water resources	Public Private	Syndicats des eaux, Private or public W/S companies
Private company	Organisation aiming at producing and/or selling goods and/or services (except in the W/S sector)	Private	
Professional or industrial organisation	Organisation aiming at defending and promoting the specific interests of a sector of the economy	Public, private	Chamber of commerce, Mayors' and municipalities' associations, Sector/Branch associations
Financial institution	Organisation offering financial services to states, organizations or people.	Public Private	Banks, Funds
Foundation	A kind of philanthropic organisation, set up as a legal organisation, with the purpose of distributing grants to support causes in line with the goals of the foundation (e.g.: political, social, cultural, religious foundation, etc...).	Public Private	
NGO	Organisation that acts outside of institutionalized political structures and pursues matters of interest to its members and beneficiaries by lobbying, persuasion, or direct action.	Public Private	Associations, Trade unions
Network/Federation	Group of organizations working on the basis of a common aim with common rules	Public Private	NGO federations (IFRC, NETWAS), Forums
University/Research/ Education	Institution involved in research and/or educational activities	Public Private	Universities, Research institutes, Schools
Other	Organisations that do not enter in the previous categories.	Public Private	Cultural organisations, media, think tanks, hospitals, churches

Table 1.5: Actor legal status in the online database.

Data cleaning

Currently the database structure is such that the actor data is specific to each project. This means that the actor information is entered and kept independently for each project. So far, the available information has been harmonized across projects for all actors. During this harmonization process, the data gaps were filled if possible using all the available information and semi-automatic checks using the actor names as described before were performed. An important obstacle to this harmonization process was that there is no unique identifier for each organization. The PADOR number could fulfill this task very well, but unfortunately this information has been requested only for the applicants.

When "beneficiaries", "communes", "benefiting municipalities" were cited as actors, this information was kept and counts for one in case there is no further information, else it was broken down into the different municipalities or local governments where the project is implemented (and each counts for one).

United Nations organizations at all geographical levels (e.g. national and regional offices) were categorized as "International organization" and their origin set to "Non ACP international organization".

1.4.2.3. Project type and duration

The definition of the project type is based on explicit designation by the applicant in the title and project descriptions. The designation has been performed in a semi-automatic way. There were 4 possible values:

Project type	Projects concerned	Definition
Rural	Components B and C proposals from 1st and 2nd WF CfP and all from 3rd WF CfP	Rural beneficiaries > Peri-urban beneficiaries
Peri-urban	Components B and C proposals from 1st and 2nd WF CfP and all from 3rd WF CfP	Peri-urban beneficiaries > Rural beneficiaries
Rural & peri-urban	Components B and C proposals from 1st and 2nd WF CfP and all from 3rd WF CfP	Explicit indication in title or summary that both populations will benefit from the project.
Capacity building and governance	All component A projects from 1st and 2nd WF CfP	

Table 1.6: Project type values in the online database.

As for project duration, it ranged from 36 until 60 months, the minimum and maximum project duration times, respectively, according to the guidelines of the call. This variable, designed as *Duration in months*, can be retrieved from the full export of the online database.

1.4.2.4. Technologies and activities

Two types of information can be found in the system: activities codes according to the Development Assistance Committee (DAC) (Table 1.7), and technologies names (Table 1.8). This information can be downloaded in the *technologies* export in the online platform.

As not to lose any information given by the applicants, all the information from the technologies part of Annex F was kept. As it appeared that applicants had often given information different from the technologies offered in the drop list, new DAC codes and technology categories were added. The final categories are listed in tables 1.7 and 1.8.

DAC CODE	DESCRIPTION	Clarifications / Additional notes on coverage
12261	*Health education*	Information, education and training of the population for improving health knowledge and practices; public health and awareness campaigns; promotion of improved personal hygiene practices, including use of sanitation facilities and hand-washing with soap.
14015	*Water resources conservation (including data collection)*	Collection and usage of quantitative and qualitative data on water resources; creation and sharing of water knowledge; conservation and rehabilitation of inland surface waters (rivers, lakes etc.), ground water and coastal waters; prevention of water contamination.
14030	*Basic drinking water supply and basic sanitation*	Programmes where components according to 14031 and 14032 cannot be identified. When components are known, they should individually be reported under their respective purpose codes: water supply [14031], sanitation [14032], and hygiene [12261].
14031	*Basic drinking water supply*	Rural water supply schemes using hand pumps, spring catchments, gravity-fed systems, rainwater collection and fog harvesting, storage tanks, small distribution systems typically with shared connections/points of use. Urban schemes using hand pumps and local neighbourhood networks including those with shared connections.
14032	*Basic sanitation*	Latrines, on-site disposal and alternative sanitation systems, including the promotion of household and community investments in the construction of these facilities. (Use code 12261 for activities promoting improved personal hygiene practices.)
14050	*Waste management / disposal*	Municipal and industrial solid waste management, including hazardous and toxic waste; collection, disposal and treatment; landfill areas; composting and reuse.
14081	*Education and training in water supply and sanitation*	Education and training for sector professionals and service providers.
31140	*Agricultural water resources*	Irrigation, reservoirs, hydraulic structures, ground water exploitation for agricultural use.

Table 1.7: DAC codes used in the online database.

Technology	Description	DAC code
Agricultural water use	Use or reuse of water for agricultural activities (e.g. irrigation, drinking through for cattle, tertiary network)	31140
Capacity building	Capacity building and training of W/S professionals or institutions	14081
Community-led total sanitation approach	Improvement of sanitation and hygiene conditions through the implementation of the community-led total sanitation approach	12261
Composting toilet	Dry toilet into which carbon-rich material (vegetable wastes, straw, grass, sawdust, ash) are added to the excreta and special conditions maintained to produce inoffensive compost. A composting latrine may or may not have a urine separation device. (UNICEF and WHO, 2010)	14032
Drinking water supply - not specified or unimproved	Drinking water supply technologies when there is no sufficient information to allocate is to a category or when it is an unimproved water supply	14031
Equipment for households	Provision of households with basic private WaSH equipment such as waste bins, laundry tubs	14031, 14032, 12261
Equipment for WaSH facilities	Equipment necessary to the functioning of WaSH facilities such as hand or motorized pumps, tanks, generators…	14031, 14032, 12261
Evacuation/drainage of water	Installations aiming at evacuating rainwater or surplus water from public places (streets, etc…) or houses (eg. cesspool)	14032

Technology	Description	DAC code
Flush or pour flush to piped sewer system, septic tank	Flush toilets use a cistern or holding tank for flushing water, and a water seal (which is a U-shaped pipe below the seat or squatting pan) that prevents the passage of flies and odours. Pour flush toilets use a water seal, but unlike a flush toilet, water is poured by hand for flushing. Excreta are flushed to a sewer system or a septic tank. (UNICEF and WHO, 2010)	14032
Flush or pour flush to pit latrine	System that flushes excreta to a hole in the ground or leaching pit (protected, covered). (UNICEF AND WHO, 2010)	14032
Hand washing facilities	Public hand washing installations	12261
Other		
Piped water into dwelling, plot or yard	Water service pipe connected with in-house plumbing to one or more taps or to a tap placed in the yard or plot outside the house. (UNICEF AND WHO, 2010)	14031
Pit latrine with slab	Dry pit latrine that uses a hole in the ground to collect the excreta and a squatting slab or platform that is firmly supported on all sides, easy to clean and raised above the surrounding ground level to prevent surface water from entering the pit. The platform has a squatting hole or is fitted with a seat. (UNICEF AND WHO, 2010)	14032
Protected dug well	Dug well that is protected from runoff water by a well lining or casing that is raised above ground level and a platform that diverts spilled water away from the well. A protected dug well is also covered, so that bird droppings and animals cannot fall into the well. (UNICEF AND WHO, 2010)	14031
Protected spring	Spring protected from runoff, bird droppings and animals by a "spring box", which is constructed of brick, masonry, or concrete and is built around the spring so that water flows directly out of the box into a pipe or cistern, without being exposed to outside pollution. (UNICEF AND WHO, 2010)	14031
Public tap/stand pipe	Public water point from which people can collect water (UNICEF AND WHO, 2010)	14031
Rainwater collection	Rain that is collected or harvested from surfaces (by roof or ground catchment) and stored in a container, tank or cistern until used. (UNICEF AND WHO, 2010)	14031
Sanitation - not specified or unimproved	Sanitation facilities when there is no sufficient information to allocate them to a category or when they are unimproved	14032
Sensibilisation/Education	Information, training, awareness raising of the population	12261, 14081
Showers	Public showers	12261
Solid waste disposal	Solid waste collection, disposal, incineration	14050
Tube well/borehole	Deep hole that has been driven, bored or drilled, with the purpose of reaching groundwater supplies. Boreholes and tube wells are constructed with casing, or pipes, which prevent the small diameter hole from caving in and protects the water source from infiltration by run-off water. Water is delivered through a pump, which may be powered by human, animal, wind, electric, diesel or solar means. Boreholes/tubewells are usually protected by a platform around the well, which leads spilled water away from the borehole and prevents infiltration of run-off water at the well head. (UNICEF AND WHO, 2010)	14031
Ventilated improved pit latrine	Dry pit latrine ventilated by a pipe that extends above the latrine roof. The open end of the vent pipe is covered with gauze mesh or fly-proof netting and the inside of the superstructure is kept dark. (UNICEF AND WHO, 2010)	14032
WaSH - not specified		14030
Waste water/sludge treatment	Wastewater collection and treatment systems, sewage systems, vacuum trucks, septic tanks, composting and reuse of faecal matter…	14032
Water purification	Household or local scale water purification equipment or products	14031
Water reservoir	Water towers, tanks…	14031
Water resource conservation	Activities or installations aiming at preserving the water resource, improving its state, replenishing it or collecting data	14015

Table 1.8: List of technologies cited in the online database.

Data cleaning

Given that technology data was text data, it was not possible to clean it in an automatic way, and checking each proposal one by one would have been very time consuming. Thus, the data cleaning procedure was adapted as to find the better invested time-result ratio. In a first stage, obviously erroneous values were removed. Then, the list of indicated technologies was reviewed manually. In a third stage, for proposals without technology data, this information was retrieved manually from the project summary, the technology description field and the project title. Then, the technology description field of all proposals was scanned for keywords in the attempt to make the technology data as complete as possible (eg: ECOSAN, sanplat, words related with Community-led total sanitation…). In the last stage, remaining inconsistencies and data gaps were sorted out during data analysis.

1.4.2.5. Project financing and budget closure

The online database displays the information given on Table 1.9 concerning project financing and budget allocation. It includes data on funding request, actors´ financial contribution and budget allocated to the different types of activities. All information fields displayed in the table below can be found in the full export of the online database, except for the last one, which is to be found in the actors export.

Variable	Description
EC funding	Total amount of funding requested
Total project costs	Total costs of the projects, which includes not only the request to the EC but also the actor/s financial contribution
Subtotal yearly direct eligible costs	Total costs of the projects in an annual basis
Total eligible costs	Total costs of the projects that are eligible for funding according to the application guidelines, in an annual basis
Subtotal direct eligible costs from Activity budget breakdown	Sum of the eligible cost due to the three activity types (water supply, sanitation and hygiene promotion)
Total yearly subcontracting	Amount of budget that is to be executed by subcontractors each year of the project
Subcontracting per year as % of DEC	Percentage of direct eligible cost that are to be executed by subcontractors each year of the project
Subcontracting (total)	Total amount of the budget that is to be executed by subcontractors subcontracting
Subcontracting (total) as % of DEC	Total percentage of direct eligible cost that are to be executed by subcontractors
Water supply activities budget	Cost of the project allocated to water supply activities
Water budget as % of TDEC	Percentage of the cost of the project allocated to water supply activities from total direct eligible cost
Sanitation activities budget	Cost of the project allocated to sanitation activities
Sanitation budget as % of TDEC	Percentage of the cost of the project allocated to sanitation activities from total direct eligible cost
Hygiene promotion activities budget	Cost of the project allocated to hygiene promotion activities
Hygiene promotion budget as % TDEC	Percentage of the cost of the project allocated to hygiene promotion activities from total direct eligible cost
Applicant Financial contribution	Amount of economic contribution coming from the applicant institution
Contribution	Amount of economic contribution coming from each actor

Table 1.9: Variables regarding project financing and budget allocation that can be retrieved from the WEIRS database.

Data cleaning

No further data cleaning was performed with the financial data (budget breakdown by activity, budget to be incurred by each actor, yearly budgets and subcontracting) than that done for the preliminary statistics.

The project financing by actor data was cleaned for all proposals. Erroneous values were removed from the available data, but no data was added for the proposals for which this information was partly or totally missing. For some awarded projects the project financing has been changed during contracting. Since the JRC has only been provided with the new total cost and grant amounts, some budgets are no more closed.

1.4.2.6. Expected improvement of local water services

This information (Table 1.10) consist of values given by the applicants in the Annex F about the improvement of local water services that the proposed project might have, as well as the amount of population and population growth rate in the project location. All variables can be retrieved through the full export option in the Aquaknow data projects section, with the same names that are presented here.

Variable	Description
Drinking water coverage % improved sources (rural pop at prj start)	Percentage of rural local population covered with sources of water considered "improved" by the JMP at the beginning of the project
Drinking water coverage % improved sources (rural pop at prj end)	Percentage of rural local population covered with sources of water considered "improved" by the JMP at the beginning of the end of the project
Drinking water coverage % improved sources (periurban pop at prj start)	Percentage of periurban local population covered with sources of water considered "improved" by the JMP at the beginning of the project
Drinking water coverage % improved sources (periurban pop at prj end)	Percentage of periurban local population covered with sources of water considered "improved" by the JMP at the end of the project
Sanitation coverage % Improved facilities (rural pop at prj start)	Percentage of rural local population covered with sanitation facilities considered "improved" by the JMP at the beginning of the project
Sanitation coverage % Improved facilities (rural pop at prj end)	Percentage of rural local population covered with sanitation facilities considered "improved" by the JMP at the end of the project
Sanitation coverage % Improved facilities (periurban pop at prj start)	Percentage of periurban local population covered with sanitation facilities considered "improved" by the JMP at the beginning of the project
Sanitation coverage % Improved facilities (periurban pop at prj end)	Percentage of periurban local population covered with sanitation facilities considered "improved" by the JMP at the end of the project
Rural population (prj start)	Local rural population at the beginning of the project
Rural population (prj end)	Local rural population at the end of the project
Peri-urban population (prj start)	Local periurban population at the beginning of the project
Peri-urban population (prj end)	Local periurban population at the end of the project
Total population (prj start)	Total local population at the beginning of the project
Total population (prj end)	Total local population at the end of the project

Table 1.10: Variables on water supply and sanitation improvement in the projects´ locations that can be retrieved from the WEIRS database.

It is important to clarify a central concept for measuring the achievement of the Millennium Development Goals referred to technologies for water supply and sanitation: the term "improved", which is applied to water sources and sanitation. This term refers to water sources

that are considered likely to provide safe water, according to the Joint Monitoring Program (JMP) for Water Supply and Sanitation by the World Health Organization and UNICEF. Similarly, some sanitation techniques/technologies are considered improved by the same program. However, the JMP warns that is often difficult to ascertain if a technology leads to an actually improved water supply/sanitation system. The term of improved water sources and sanitation is used to measure the achievement of the Millennium Development Goals in developing countries and was one of the fields to be filled-in for the WF applications. However, according to the JMP warnings, the impact of the projects in terms of actual increase of access to safe resources should be carefully interpreted.

Data cleaning

Obviously erroneous values were removed from these data. No further checks were realised.

1.4.2.7. Beneficiaries and cost/beneficiary

The system includes information on the number of expected beneficiaries of each project implementation and its cost-beneficiary ratio, on average and for each type of activity (Table 1.11). This information can be found in the *wash consultation full export.* These data, however, are not highly reliable as we explain in the data cleaning section below.

Variable	Description
Drinking water supply beneficiaries	Number of people that is expected to profit from the project water supply activities
Sanitation facilities beneficiaries	Number of people that is expected to profit from the project sanitation activities
Hygiene promotion beneficiaries	Number of people that is expected to profit from the project hygiene activities
Total number of end beneficiaries	Total number of people that is expected to profit from the all project activities. This variable was estimated as the maximum of the three types of project beneficiaries, as described in the section below on data cleaning and accuracy
Overall cost per beneficiary (euro/beneficiary)	Ratio between the project cost and the total number of beneficiaries
Proxy cost per beneficiary (TEC/Wbenefs)	Ratio between the total project eligible cost and the number of water supply beneficiaries
Cost per Water supply beneficiary (Wbudget/Wbenefs)	Ratio between the budget allocated to water supply activities and the number of water supply beneficiaries, being an indicator of this activity efficiency.
Cost per Sanitation promotion beneficiary (Sbudget/Sbenefs)	Ratio between the budget allocated to sanitation activities and the number of sanitation beneficiaries, being an indicator of this activity efficiency.
Cost per Hygiene promotion beneficiary (Hbudget/Hbenefs)	Ratio between the budget allocated to hygiene promotion activities and the number of hygiene promotion beneficiaries, being an indicator of this activity efficiency.

Table 1.11: Variables on beneficiaries and cost/beneficiary that can be retrieved from the WEIRS database.

Data cleaning

For all proposals, the obviously erroneous values of beneficiaries were removed. When the data was missing for awarded projects, the proposal was checked as to get the information if it was available in another part of the form.

It is important to clarify that beneficiary data was requested as separate numbers for water supply, sanitation and hygiene promotion activities. Thus, no direct information about the total number of beneficiaries was available. Here, the latter value was estimated as the maximum value of all three beneficiary types. In fact, taking the sum the number of beneficiaries would have been an overestimation because a person benefiting from more than one activity would be counted several times. In practice, for 80% of proposals the maximum value was the number of hygiene promotion beneficiaries, which was often rounded up to quite important numbers of people. Thus, although already conservative, this definition of the total number of end beneficiaries could still be overestimating the actual number of beneficiaries (even though it is assumed that the applicants gave reasonable estimations of the beneficiaries of their project).

1.4.2.8. Project eligibility status

The project status is the variable that informs about the success of the application. The categories of this variable are three: *awarded*, *rejected* and *pending*. It can be retrieved through the full export of the online database with the name of *Project eligibility status*.

1.4.2.9. Development indicators

The online platform where WEIRS data is integrated allows displaying several development indicators at country level. This includes data maintained by different organizations like FAO, CIESIN, UNDP, etc, covering environment, governance and human development indicators. All these datasets provide country context information, which facilitates the assessment of the proposals relevance and adequacy. A subset of these development indicators (Table 1.12) was selected for the analysis we develop here in further. We included variables that we considered interesting for the analysis, for which data quality was acceptable and for which differences among countries were significant. For the extended list of indicators, see the online platform.

In addition to these development indicators, the online platform counts with a repository including reference maps with geographical regions, river basins, and protected areas, among other layers, which might be also useful in the proposals assessment procedure.

Group	Variable	Description	Unit	Year
Worldwide Governance Indicators[2]	Voice and Accountability	Worldwide Governance Indicator Voice and Accountability. It captures perceptions of the extent to which a country's citizens are able to participate in selecting their government, as well as freedom of expression, freedom of association, and a free media.	Dimensionless (Dmnl)	2004
	Political stability	Worldwide Governance Indicator Political stability. It captures perceptions of the likelihood that the government will be destabilized or overthrown by unconstitutional or violent means, including politically-motivated violence and terrorism.	Dimensionless (Dmnl)	2004
	Government effectiveness	Worldwide Governance Indicator Government effectiveness. It captures perceptions of the quality of public services and civil service and the degree of its independence from political pressures, the quality of policy formulation and implementation, and the credibility of the government's commitment to such policies.	Dimensionless (Dmnl)	2004
	Regulatory quality	Worldwide Governance Indicator Regulatory quality. It captures perceptions of the ability of the government to formulate and implement sound policies and regulations that permit and promote private sector development.	Dimensionless (Dmnl)	2004
	Rule of law	Worldwide Governance Indicator Rule of law. It captures perceptions of the extent to which agents have confidence in and abide by the rules of society, and in particular the quality of contract enforcement, property rights, the police, and the courts, as well as the likelihood of crime and violence.	Dimensionless (Dmnl)	2004
Socio-economy	GDP	Gross Domestic Product at Purchasing Power Parity, i.e. the value of all final goods and services produced by a country annually, divided by the average population, considering the effect of inflation.	Int $ per capita	
	HDI	Human Development Index (HDI)[3]. It is a measure of human development based on health, literacy and GDP.	Dimensionless (Dmnl)	2005
	Child mortality under 5 y	Probability of dying between birth and exact age of 5 years.	Children per 1000	2005
	Rural population growth	Rural population growth rate.	%	2000-2005
	Urban population growth	Urban population growth rate.	%	2000-2005
	Malaria prevalence	Number of reported cases of malaria in the population, each 1000 individuals	Cases per 1000	2004
	Gross enrolment at school (1 to 3 cycle)	Share of children enrolled in official primary, secondary and tertiary levels of education, regardless of age, divided by the children of school age.	%	2005
	Female economic activity	Women aged 15 and above that are economically active (looking for or having an occupation) divided by male population from ILO (International Labour Organization).	%	2005
	Proportion of urban population living in slums	Proportion of the urban population living in slums, considering a slum as a contiguous settlement without adequate housing and basic services.	%	2001

[2] Worldwide Governance Indicators. They all range between -3.5 and 3.5. More information can be found on http://info.worldbank.org/governance/wgi/index.asp

[3] The HDI is a measure of human development and based on 3 main components: i) a long healthy life measured by life expectancy at birth; ii) knowledge measured by the adult literacy rate and combined primary, secondary and tertiary gross enrolment ratio; iii) a decent standard of living measured by the GDP/cap. Countries are ranked from highest score of HDI (better human development) to lowest score (lower human development). All countries included in the HDI are classified into three clusters by achievement in human development: high human development (≥0.800), medium human development (0.500–0.799) and low human development (≤0.500).

Group	Variable	Description	Unit	Year
Water indicators	Water supply services coverage 2004	Percentage of population having access to improved water supply source[4].	%	2004
	Sanitation services coverage 2004	Percentage of population having access to improved sanitation source[5].	%	2004
	Household connection level 2004	Household connection level	%	2004
	Water poverty 2002	Water poverty index (WPI)[6]. It expresses an interdisciplinary measure which links household welfare with water availability and indicates the degree to which the water scarcity impacts on human population. WPI is made of five component indices: resources, access, capacity, use, and environment. The higher the index, the lower is water constraint.	Dimensionless (Dmnl)	2002
	Dry land proportion percentage	Percentage of area with a potential hazard of desertification.	% of total area	-
	Total water resources	Sum of the total surface water resources available for the use.	m^3 per year per person	2004
Development aid	Official development assistance 2004	Development aid received per capita.	USD per capita	2004
	Total ODA water and sanitation	Development aid related to water supply and sanitation received per capita.	USD per capita	2004

Table 1.12: Selection of development indicators that can be displayed by the WEIRS database.

[4] An improved drinking-water source is defined as one that, by nature of its construction or through active intervention, is protected from outside contamination, in particular from contamination with faecal matter.

[5] For MDG monitoring, an improved sanitation facility is defined as one that hygienically separates human excreta from human contact.

[6] The WPI is a measure which links household welfare with water availability and indicates the degree to which water scarcity impacts on human populations. Such an index makes it possible to rank countries (and communities within countries) taking into account both physical and socio-economic factors associated with water scarcity. The index is constructed with five major components, each with several sub-components: i) resources; ii) access; iii) capacity; iv) use; v) environment. The final index score of the WPI is in the range 0 to 100. More information on http://www.grida.no/graphicslib/detail/water-poverty-index-by-country-in-2002_d6db

1.4.2.10. Data cleaning of rejected Call 1 and Call 2 proposals

Data for rejected Call 1 and Call 2 proposals was submitted to the JRC through the following documents (already presented in section 1.4.2):

- *1st Call FINAL summary all 800 proposals.xls*
- *2nd Call FINAL summary all 544 proposals.xls*

Since this data came from a DG DEVCO internal use project list, it was assumed trustworthy. For Call 1 and 2 rejected proposals following project description fields (Table 1.13) have been imported into the online database without any data cleaning:

Field	Call 1	Call 2
Call and Dossier Number	X	X
Title	X	X
Component	X	X
Project country/ies and region(s)	X	X
Location description	X	X
Project type	X	
Delegation in charge		X
Duration in months		X
Total project costs	X	X
EC funding	X	X
Water supply activites budget		X
Sanitation activities budget		X
Hygiene promotion activities budget		X
Drinking water supply beneficiaries		X
Sanitation facilities beneficiaries		X
Hygiene promotion beneficiaries		X
Cost per Water supply beneficiary (Wbudget/Wbenefs)		X
Cost per Sanitation promotion beneficiary (Sbudget/Sbenefs)		X
Project Evaluation step		X
Project Eligibility Status	X	X

Table 1.13: Project description data imported into the WEIRS WaSH DB for Call 1 and 2 rejected proposals.

However, while using data for the analysis implemented in the following sections here, we detected that this data still needs to be harmonized and data gaps filled when possible (using the data from Call 3 and awarded projects of Call 1 and 2).

Apart from data displayed in Table 1.13, available data on actors (Name, Type, Acronym, PADOR number, Legal status, Country, Region, Registration year, LEF, Contribution (1=yes), Legal type, Comments) has also been imported without further data cleaning into the online database.

The submitted files also hold data for awarded projects, but the data has not been imported into the database since it was supposed that the data from the *Per_JRC.xls* file was more reliable.

PART 2: DATA ANALYSIS

2.1. Scope of the analysis

In the following, we present the results of the off-line analysis of proposals data and development indicators, with the aim of giving a "multi-point of view" overview of the Water Facility CfP and illustrating the functionalities of the online database. The analysis helps better understanding the variability of proposals and applicants, as well as their socio-economic contexts, and how these features have influenced the proposals award process.

We first characterize a selection of data from the last Water Facilities CfP (2010) and the development indicators of the countries where the projects were to be implemented. We then characterize a selection of these data for each ACP region. Next, we analyze the differences between awarded and rejected proposals, in order to have a preliminary view on the type of proposals that were eventually successful in the award process. Later, we implement multivariate analyses to investigate the correlation between variables from the applications and the development indicators. And finally, we analyze the differences among the three WF calls for proposals (cross-calls analysis). For the multivariate analyses we use only a selection of the proposals, since these analyses are sensitive to the existence of missing data, which was very frequent in the database. We explain the details of all these analyses in their respective sections in the following.

The results of the analyses will be used to give some recommendations for the design of the coming calls for proposals. Analyzing the received proposals during the selection procedure might be useful to have feedback on the appeal of the call for proposal and support for designing the future call for proposal on the basis of the learnt lessons. Analyzing the awarded projects of a single CfP or across calls may provide a picture of the CfP results and give insights into possible impacts of the Facilities as well as on the consistency and changes along time of the selection procedure.

It is important to keep in mind that, as explained in section 1.5, for proposals that were rejected in Call 1 and Call 2, no data cleaning but the removal of obviously erroneous data was done. For awarded projects a more consistent effort was made as to get as complete data as possible. Additionally, may annexes with proposals information for the 2010 call were missing. Thus, the data is not totally complete and given the uncertainties about the quality of the available data and the poor knowledge the JRC has about the choices made by DG DEVCO during project selection, conclusions can only be drawn with caution. However, this should not be considered as a drawback but rather as an opportunity to look at the WF with an independent and unbiased look and a good means to point on missing and erroneous data. Improving the data quality over time as it is made available will allow getting in the future a more accurate picture of the WF appeal and impact.

2.2. Proposals WF 2010 analysis

2.2.1. Some remarks on the data

In this report, we analyze in much deeper detail data from the 3rd WF call (2010) for several reasons. First, only 3rd call data was cleaned by the JRC project team, which enabled us to have more detailed and reliable information. Second, the fact that there was no cleaned data of

rejected proposals for the first two calls, which quite limit analyses like the comparison of rejected and awarded proposals. Third, only during the last call (2010) the joint analysis of proposals information and development indicators (through the AquaKnow online platform) was available.

For the WF 2010 call, two types of data are to be found: categorical and quantitative variables, which will determine the way in which the information is analyzed and presented. For categorical variables, we show the frequencies of the different fields of each variable, with and special emphasis on actors' characterization. For quantitative variables, we either show histograms of the frequencies of the different values ranges or compute the average values, with their respective standard deviation and errors.

For these analyses, some variables were newly created based on other existent variables or including information derived from past calls. Some variables were also reclassified to facilitate drawing conclusions. Other variables included in the database but not used for these analyses, such as the geo-localization of projects, can be found in the AquaKnow online platform.

For data characterization, it was considered that having no data for a given characteristic had no implication concerning the quality of the rest of the project data. Thus, as far as possible, it was sought to perform the analyses on complete and coherent proposal sets for the concerned characteristic. As a result, the number of analysed proposals varies from one analysis to the other. The number of missing values for most variables is specified in next section.

2.2.2. Overview of the results

539 proposals were submitted to the WF in 2010 (proposal 161 is counted as 4 separate proposals: 161-A to 161-D).

A brief view on the main **categorical variables** is displayed in Table 2.1. In this table, fields of the different variables and their frequencies (total and relative frequencies) are displayed. These variables include proposals' and applicants' characteristics such as legal status, regions of origin or award in previous WF calls.

Quantitative variables include issues such as proposals data on funding, expected impact of the project, number of beneficiaries, etc, as well as all development indicators. A brief description of the main quantitative variables is displayed in Table 2.2. It shows, among other information, the minimum, maximum and mean values, the standard deviation and the standard error of the mean for all variables. The mean serve us as an estimator of the average values of the variables; the standard deviation gives us insight about the dispersion of each variable values compared to the mean value and therefore of their variability; and the standard error of the mean tells us about how representative are the mean values obtained, taking into account the number of proposals that were used to compute them.

Group	Variable	Relation with online database	Missing values	Variables categories	Frequency per category	Relative frequency per category (%)
Applicant features	Legal status	Based on *Legal status.* According to the variability of data[7], categories were reclassified as *low level management, high level management, ONG, private interest institution and University/Research/Education*	0	NGO	325	60.3
				Low level management	71	13.2
				High level management	68	12.6
				Private interest institution	65	12.1
				University/Research/Education	6	1.1
				Other	4	0.7
	Legal type	*Legal type*	6	Private	370	69.4
				Public	163	30.6
	Region of origin	*Region of origin*	0	Europe	294	54.5
				Western Africa	65	12.1
				Eastern Africa	45	8.3
				Central Africa	43	8.0
				Non ACP International Organization	42	7.8
				Southern Africa	28	5.2
				Caribbean	14	2.6
				Pacific	7	1.3
	Previous award	New variable based on information from the three calls	0	None	342	63.5
				Both calls	105	19.5
				Call 1	47	8.7
				Call 2	45	8.3
Projects features	Project region	*Project region*	1	Western Africa Region	179	33.3
				Eastern Africa Region	144	26.8
				Central Africa Region	93	17.3
				Southern Africa Region	76	14.1
				Caribbean Region	29	5.4
				Pacific Region	17	3.2
	Project duration	Adapted from *Duration in months.* The original variable was quantitative. Short corresponds to values less than 36 months, the minimum duration according to the call guidelines; medium are values between 36 and 48 months; long are values between 48 and 60 months	3	Medium	330	61.6
				Long	193	36.0
				Short	13	2.4

[7] According to the variability of data, the frequency of some fields was very low, and we found more relevant to show differences among bigger groups and reduce the noise that some variables might introduce.

Group	Variable	Relation with online database	Missing values	Variables categories	Frequency per category	Relative frequency per category (%)
	Local partner status	New from Legal status	172	Non state	253	68.9
				Both	45	12.3
				Local authorities	45	12.3
				None	24	6.5
Activities	Activities on basic sanitation	Basic drinking water supply (DAC code 14030)	169	Yes	356	96.2
				No	14	3.8
	Activities on basic water supply	Basic drinking water supply (DAC code 14030)	169	Yes	348	94.1
				No	22	5.9
	Activities on health education[8]	Health education (DAC code 12261)	169	Yes	53	14.3
				No	317	85.7
	Activities on waste management	Health education (DAC code 12261)	169	Yes	12	3.2
				No	358	96.8
	Activities on water supply and sanitation education[9]	Education and training in water supply and sanitation (DAC code 14081)	169	Yes	5	1.4
				No	365	98.6
	Activities on conservation of water resources	Water resources conservation (DAC code 14015)	169	Yes	3	0.8
				No	367	99.2
	Activities on agriculture	Agricultural water resources (DAC code 31140)	169	No	366	98.9
				Yes	4	1.1

Table 2.1. Categorical variables extracted from the proposals. Fields of each variable are displayed from up to down from the biggest to the smallest values. Missing values correspond to the number of proposals lacking this information, a number that might be different from the number of proposals excluded for the analysis, which include not only missing data but also data with consistency problems.

[8] Information, education and training of the population for improving health knowledge and practices; public health and awareness campaigns; promotion of improved personal hygiene practices, including use of sanitation facilities and hand washing with soap. It is included in what is considered *community-led total sanitation* approach.

[9] Education and training for sector professionals and service providers. It is considered *capacity building*.

Group	Variable	Relation with online database	Units	Year	Missing values	Minimum	Maximum	Mean	Standard deviation of the sample (n)	Standard error of the mean
Project actors	Local partners	Calculated based on *Actor type*	Actors	2011	169	0	6	1.6	1.2	0.1
	Non-local partners	Calculated based on *Actor type*	Actors	2011	169	0	5	0.4	0.7	0.0
	Co-donors	Calculated based on *Actor type*	Actors	2011	169	0	5	0.2	0.6	0.0
	Associates	Calculated based on *Actor type*	Actors	2011	169	0	13	1.0	1.7	0.1
Application funding request	Applications	New variable based on *Name*	3rd call applications	2011	2	0	21	2.6	4.6	0.2
	EC Funding	*EC Funding*	Euro	2011	7	0	2560000	1656969.7	650046.0	28209.6
	Applicant financial contribution	*Applicant financial contribution*	Euro	2011	169	0	2789463	448665.1	383907.4	19985.4
Budget allocation	Water budget as % of TDEC	*Water budget as % of TDEC*	Fraction	2011	223	0	1.0	0.6	0.2	0.0
	Sanitation budget as % of TDEC	*Sanitation budget as % of TDEC*	Fraction	2011	252	0	0.9	0.2	0.2	0.0
	Hygiene promotion budget as % of TDEC	*Hygiene promotion budget as % of TDEC*	Fraction	2011	232	0	0.7	0.2	0.1	0.0
	Overall cost per beneficiary (euro/beneficiary)	*Overall cost per beneficiary (euro/beneficiary)*	€ per person	2011	174	0	15760.5	108.2	851.5	44.6
Beneficiaries	Drinking water supply beneficiaries	*Drinking water supply beneficiaries*	People	2011	176	150	2000000	71597.2	1410736	7414.7
	Sanitation facilities beneficiaries	*Sanitation facilities beneficiaries*	People	2011	175	210	2000000	64268.4	162810.4	8545.3
	Hygiene promotion beneficiaries	*Hygiene promotion beneficiaries*	People	2011	181	10	1600000	123858.4	198041.8	10481.5
	Total number of end beneficiaries	*Total number of end beneficiaries*	People	2011	170	0	2000000	131250.6	209387.1	10915.1
Water services (local), water services improvement (local) and local population growth	Drinking water coverage	*Drinking water coverage % improved sources (rural pop at prj start)*	Fraction	2011	239	0	1	0.3	0.2	0.0
	Change water coverage	Calculated as the difference between *Drinking water coverage % improved sources (rural pop at prj end)* and *Drinking water coverage % improved sources (rural pop at prj start)*	Fraction	2011	254	0		0.3	0.3	0.0

Group	Variable	Relation with online database	Units	Year	Missing values	Minimum	Maximum	Mean	Standard deviation of the sample (n)	Standard error of the mean
	Sanitation coverage	*Sanitation coverage % Improved facilities (rural pop at prj start)*	Fraction	2011	247	0	1.0	0.2	0.2	0.0
	Change sanitation coverage	Calculated as the difference between *Sanitation coverage % Improved facilities (rural pop at prj end)* and *Sanitation coverage % Improved facilities (rural pop at prj start)*	Fraction	2011	254	0	1.0	0.3	0.3	0.0
Socio-economy	GDP	*GDP*	Int $ per capita		25	0.6	10.1	1.5	1.4	0.1
	HDI	*HDI*	Dmnl	2005	17	0.3	0.8	0.5	0.1	0.0
	Child mortality under 5 years	*Child mortality under 5 y*	Children per 1000	2005	3	18.0	265.0	137.7	43.9	1.9
	Average annual population growth	*Average annual population growth*	%	2010	209	0.0	250	4.4	15.8	0.9
	Rural population growth-national	*Rural population growth*	%	2000-2005	12	-1.7	3.9	1.7	1.1	0.0
	Urban population growth-national	*Urban population growth*	%	2000-2005	12	-0.1	9.2	3.8	1.4	0.1
	Malaria prevalence	*Malaria prevalence*	Cases per 1000	2004	84	0.0	428.1	154.4	111.1	5.2
	Gross enrolment at school (1 to 3 cycle)	*Gross enrolment at school (1 to 3 cycle)*	%	2005	33	22.7	85.0	49.0	13.5	0.6
	Female economic activity	*Female economic activity*	%	2005	29	29.8	91.8	66.2	13.1	0.6
	Proportion of urban population living in slums	*Proportion of urban population living in slums*	%	2001	14	1.0	99.4	74.4	23.1	1.0
Worldwide Governance Indicators	Voice and Accountability	*Voice and Accountability*	Dmnl	2004	32	-1.9	0.8	-0.5	0.6	0.0
	Political stability and absence of violence	*Political stability*	Dmnl	2004	32	-2.6	1.3	-0.6	0.7	0.0
	Government effectiveness	*Government effectiveness*	Dmnl	2004	32	-2.2	0.8	-0.7	0.4	0.0
	Regulatory quality	*Regulatory quality*	Dmnl	2004	32	-2.3	0.6	-0.6	0.5	0.0
	Rule of law	*Rule of law*	Dmnl	2004	32	-2.3	0.7	-0.8	0.5	0.0

Group	Variable	Relation with online database	Units	Year	Missing values	Minimum	Maximum	Mean	Standard deviation of the sample (n)	Standard error of the mean
Water indicators (national)	Water supply services coverage	*Water supply services coverage 2004*	%	2004	13	22.0	100.0	60.1	16.2	0.7
	Sanitation services coverage	*Sanitation services coverage 2004*	%	2004	12	9.0	96.0	38.5	17.4	0.8
	Household connection level	*Household connection level 2004*	%	2004	19	1.0	82.0	18.0	17.8	0.8
	Water poverty index	*Water poverty 2002*	Dmnl	2002	33	35.0	76.0	45.4	6.5	0.3
	Dryland area	*Dryland proportion percentage*	% of total area	-	31	0.0	100.0	41.7	33.7	1.5
	Total water resources	*Total water resources*	m^3 per year per person	2004	17	379.7	326116.4	23471.9	63067.8	2763.1
Development aid	ODA	*Official development assistance 2004*	USD per capita	2004	11	4.2	789.0	49.7	48.5	2.1
	ODA water and sanitation	*Total ODA dedicated to Water and Sanitation sector*	USD per capita	2004	14	0.0	16.7	2.1	2.3	0.1

Table 2.2. Quantitative variables. National development indicators are displayed in italics, while the rest of the variables were extracted from submissions. Missing values correspond to the number of proposals lacking this information, a number that might be different from the number of proposals excluded for the analysis, which include not only missing data but also data with consistency problems.

2.2.3. Analysis by data fields

The following analyses provide an overview of the financial and technical characteristics of the received proposals as well as their geographical distribution and information on the actors involved in the proposals and the above mentioned development indicators.

Realised upon reception of the proposals (on minimally cleaned data), these analyses give immediate indications on the project spectrum and can provide average figures serving as reference for proposal evaluation. Preliminary statistics were realized by the JRC during the selection procedure and can be found in the June 2010 report "Global Evaluation and analysis of the Water and Energy Facilities of the EC – Preliminary statistics on proposals submitted to the Water Facility 2010 WaSH CfP" (Pubsy ref. JRC59280), already mentioned in section 1.3.3 (Communication). Albeit quite basic and realized on 365 out of 539 projects, they already proved very useful and were used as an evaluation reference for establishing selection criteria.

Realised after complete data cleaning as presented in this report, these analyses offer a global picture of the appeal of the call for proposal, especially in terms of reached public and technological characteristics of the proposals. The lessons learnt from this analysis could help to better focus the next CfP.

All maps displayed in the following were produced using the tools of the AquaKnow online platform.

2.2.3.1. Project location

Location data was only missing for one proposal. Projects that would take place in more than one country were counted as one for each country.

The online database map module enables to represent the proposals on a world map. This gives a first overview on the distribution homogeneity. There are two possible representations: project addresses (Figure 2.1) and project centred points (Figure 2.2) —as explained in section 1.5.2.1. On figure 2.1, the number inside the blue circles represents the number of project addresses, i.e. the number of addresses located in this region and not to the actual number of different projects. On figure 2.2, the project centred locations are shown. Considering both representations already allows distinguishing low and high density regions regarding the submission of proposals. Thus, most proposals were located in the Western and Eastern African regions. A fair amount of proposals were located in the Caribbean and Pacific countries, as already shown in Table 2.1.

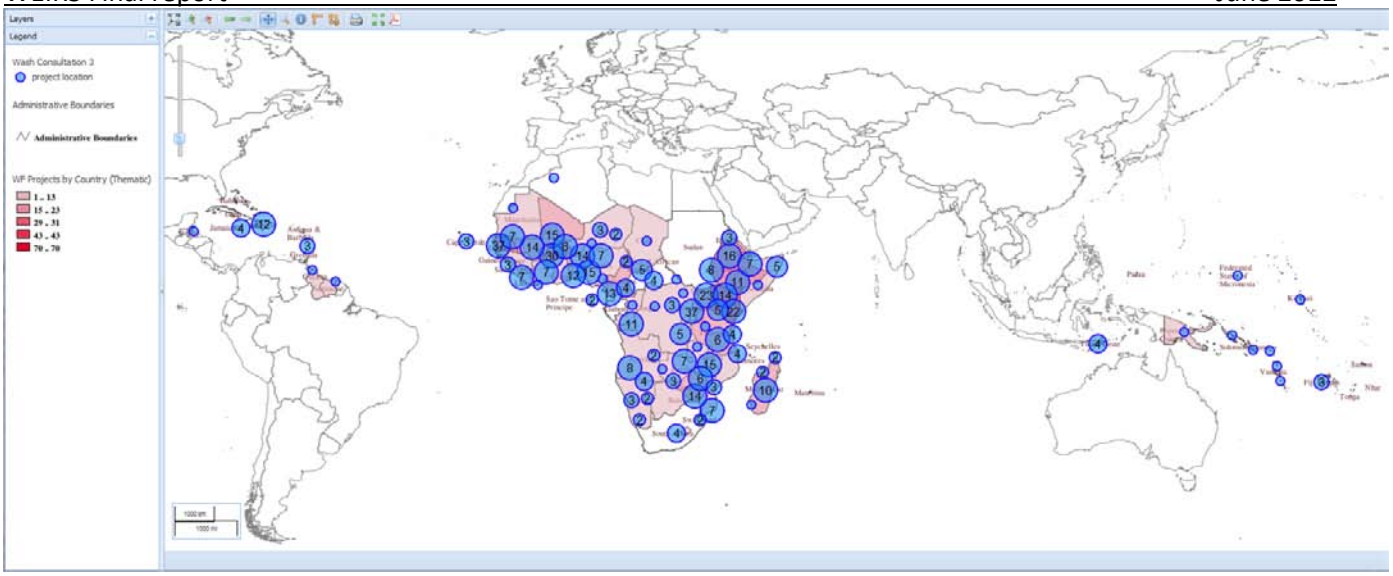


Figure 2.1: Geographic distribution of WF 2010 proposals by project address.
Background color of ACP countries shows the number of proposals by country.

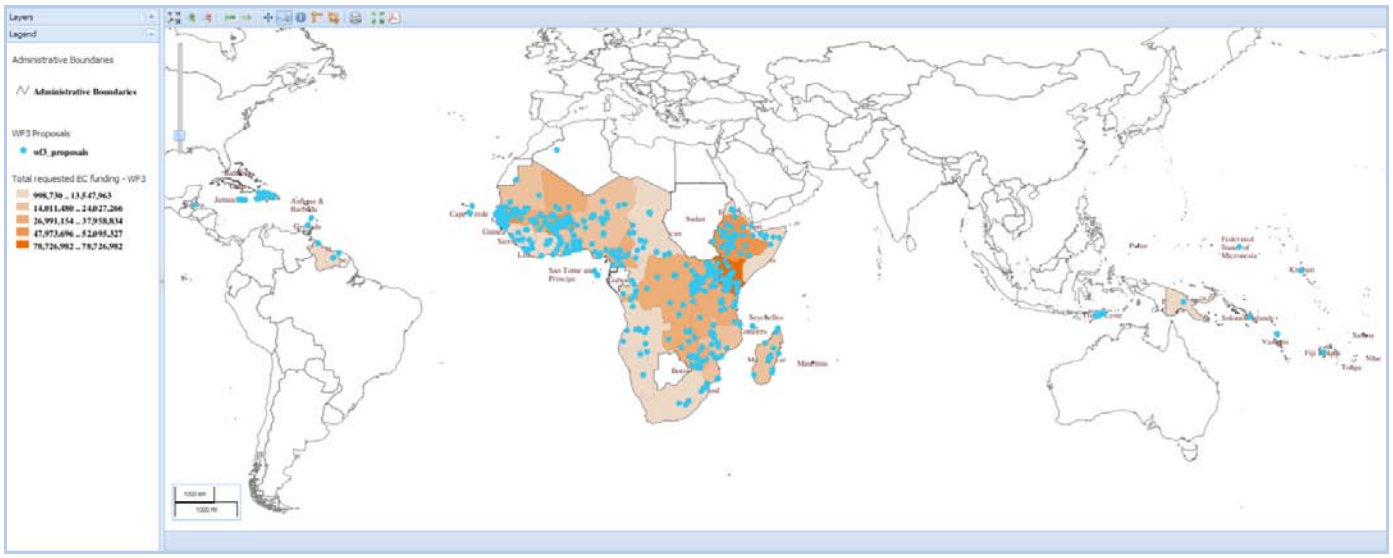


Figure 2.2: Geographic distribution of WF 2010 proposals by centered location.
Background color of ACP countries informs about EC funding request of projects proposed for each country.

Figure 2.3 presents the detailed project distribution per region and per country and allows investigating the above presented proposal distribution into more detail. All countries listed for each ACP region are shown as to underline the countries that were not covered by any proposal. This mainly concerns Small Island Developing States (SIDS), but also more surprisingly Botswana and Gabon, although they were not subjected to special eligibility criteria. Also no proposal was submitted for Sudan.

The top 10 countries amount for half of the submitted proposals. They were Kenia (KE, 46), Senegal (SN, 33), Burkina Faso (BF, 32), Ethiopia (ET, 30), Democratic Republic of Congo (CD, 28), Uganda (UG, 25), Mali (ML, 23), Tanzania (TZ, 18), Zimbabwe (ZW, 16) and Madagascar (MG, 15). It is interesting to notice that most of them were also among the countries with most submitted proposals in the Energy Facility 2010. An anecdote is that a proposal has been submitted in Algeria although this country was not eligible to Water Facility funding.

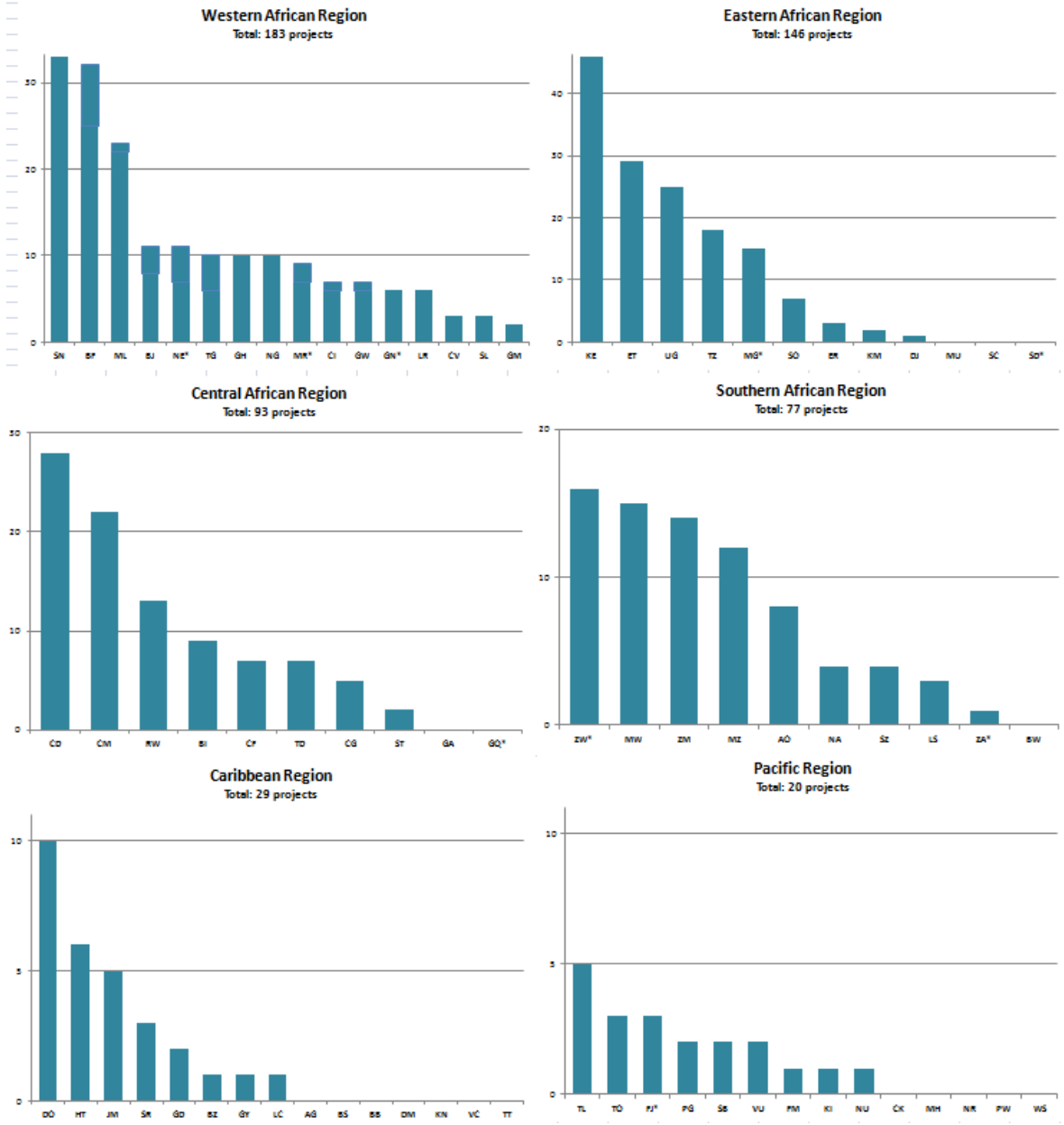


Figure 2.3: WF 2010 project distribution per region and per country.
Countries with a star (*) are countries with special eligibility criteria See ACP-EU WF 2010 WaSH Application Guidelines for details on the special eligibility criteria.

2.2.3.2. Actors characteristics

"Actors" were the organizations involved in a proposal, which can be of five different types: applicants, local partners, non local partners, associates and co-donors.

Having in mind the actor eligibility rules, analysing the actors involved in the project proposals (actor portfolio) gives insights into the type of institutions that were reached by the CfP and were active in the WaSH development aid sector.

Here we investigate the administrative characteristics of actors, particularly by legal status and origin.

Remarks on data quality

Before showing the actual analyses of the WF 2010 call, it is important to make some remarks about the reliability of the data. Complete information on applicant origin and legal status was available for all 539 proposals. As stated in the data cleaning specifications, this data came mainly from the CRIS exports provided by DG DEVCO. Information about actors different than applicants was only available for 358 proposals (66 % of the total). Thus, for the statistics involving applicant information, all 539 proposals were used, while only 358 were used for other types of actors.

From our previous experience with the different information forms that the applicants had to fill in the Energy Facility, it seems that applicant origin and legal status were linked to how well the forms were filled in (Figures 2.4 and 2.5). It can be noticed that EU and international organisation applicants filled in the forms in more detail than ACP applicants.

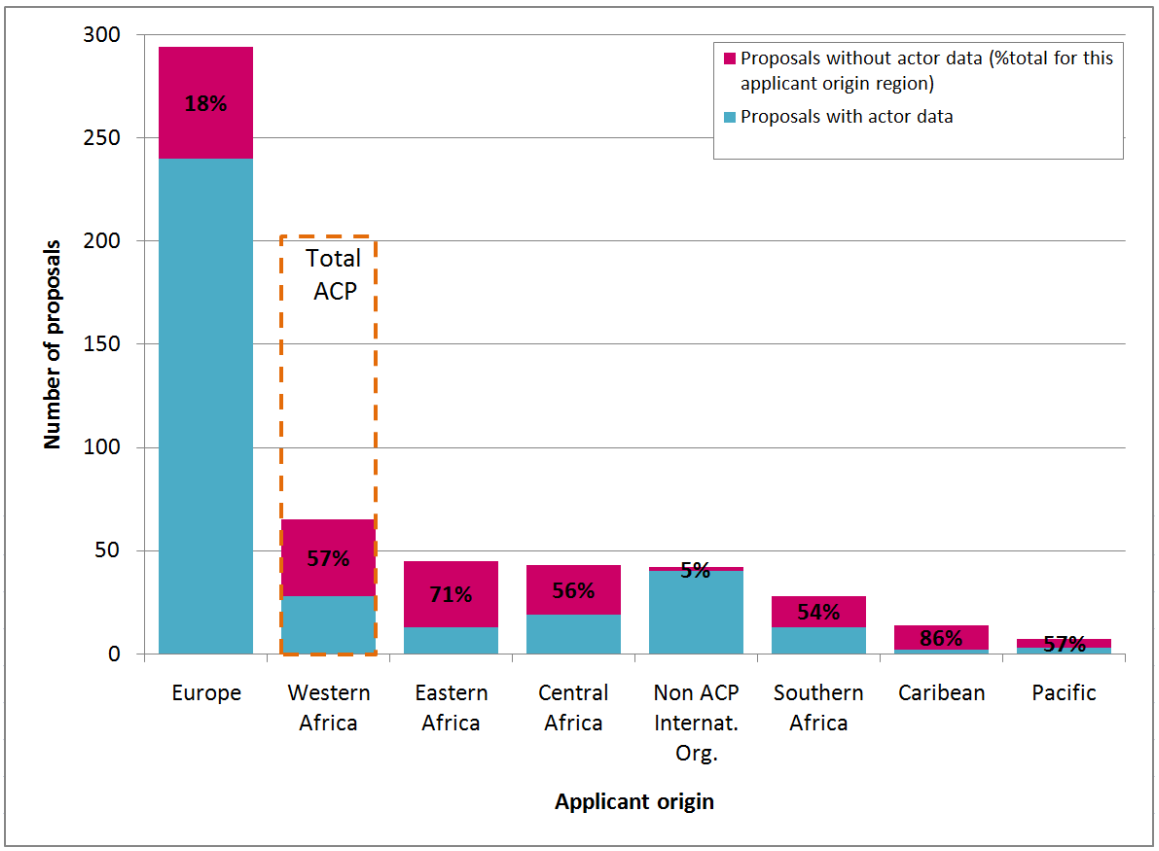


Figure 2.4: Filled in actor data by applicant origin (WF 2010 proposals).

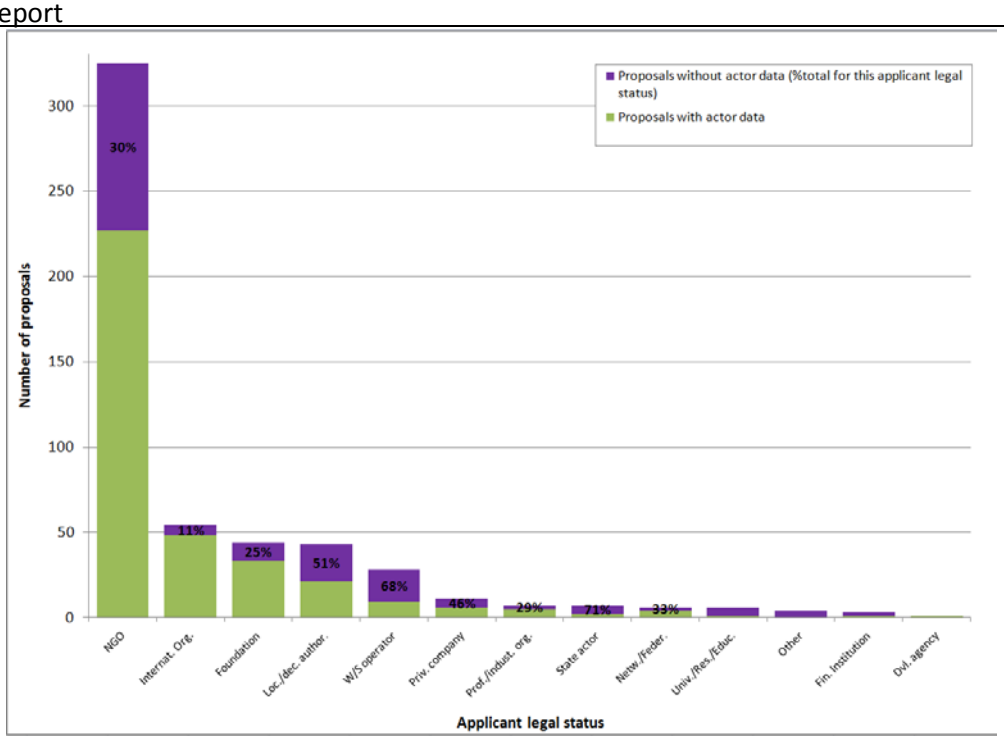


Figure 2.5: Filled in actor data by applicant legal status (WF 2010 proposals).

Actors' types

As displayed in Table 2.2, the number of local partners engaged to the proposals was the biggest among the other actors' types, being the number of co-donors the smallest. The number of associates was the most variable.

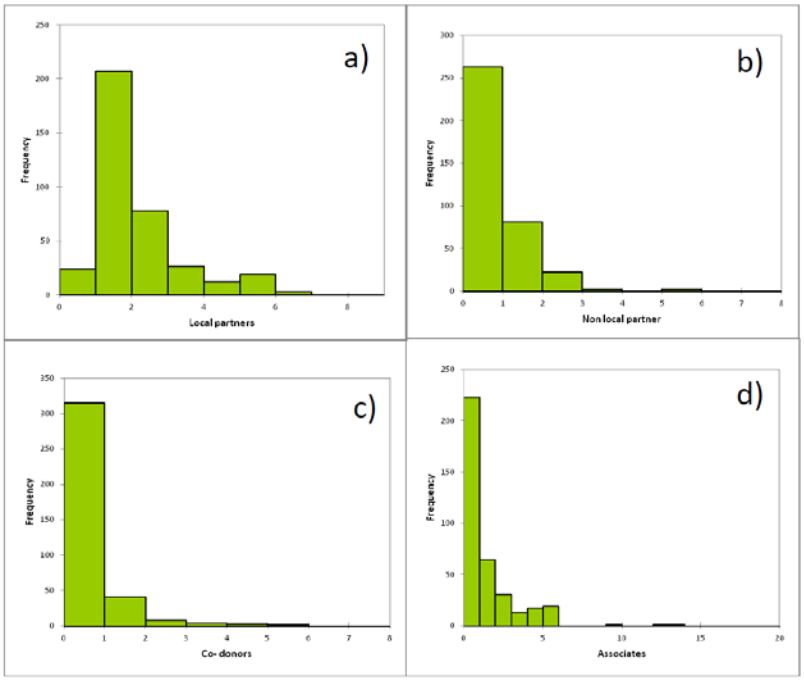


Figure 2.6: Number of actors other than applicants (histograms with frequencies).

Most proposals included between 1 and 3 local partners (Figure 2.6a). However, although the application guidelines stated that *"partnership with local NSAs and/or local authorities in the*

country where the proposed action will take place is obligatory", not all proposals considered the involvement of local partners. Only a third of the submitted projects involved non local partners, associates or co-donors (see figures 2.6b, 2.6c and 2.6d).

Actors' involvement

In 2010, 1210 different organizations were listed as involved[10] in the 539 submitted proposals. NGOs were the most frequent entities, followed by local/decentralized authorities. Some of the entities were involved in one proposal as different actors or in more than one proposal, as evidenced when comparing the total number of involvement with the number of different entities (Figure 2.7). This was particularly the case for international organizations, state actors and NGOs.

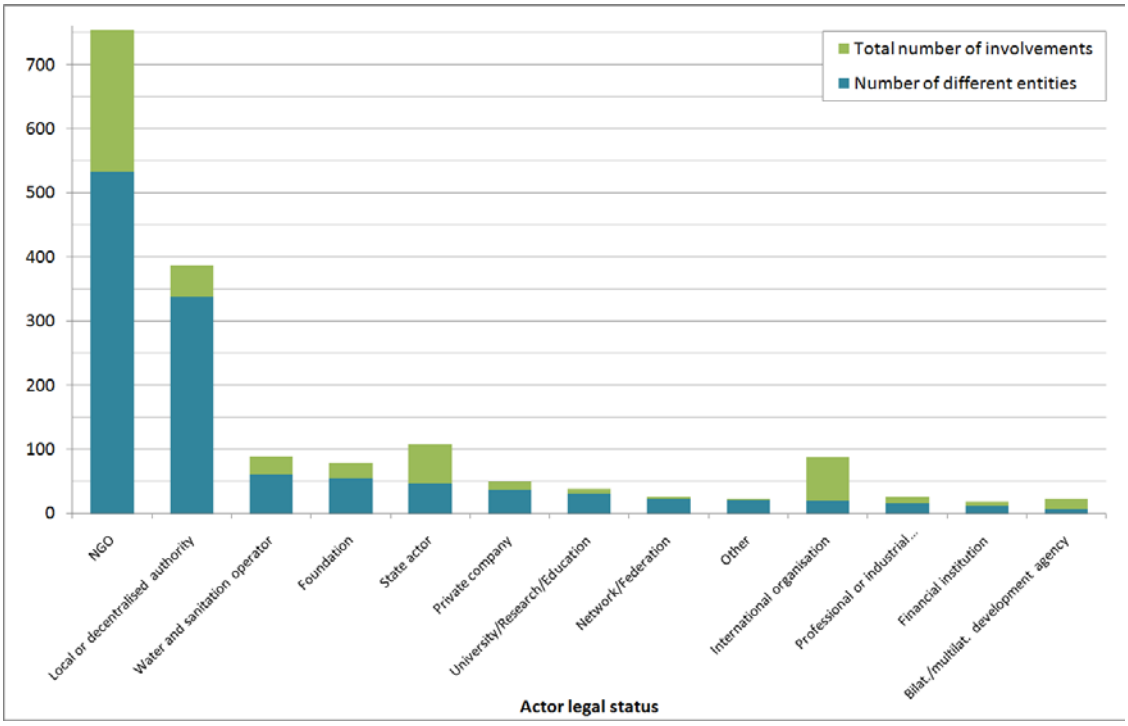


Figure 2.7: Superposed distribution of 2010 WF actor entities and involvements by legal status.

Involvements, the number of different entities and the frequency in what they were financially contributing to the proposal project were variable among actor types (Figure 2.8). For instance, we can deduce than many local partners, as well as some partners and co-donors were involved in more than one proposal, as is evidenced by the difference between number of proposal including this type of actor and the number of different organizations. Almost all applicants were contributing financially to the proposal.

[10] The fact that an organization is actor of a project.

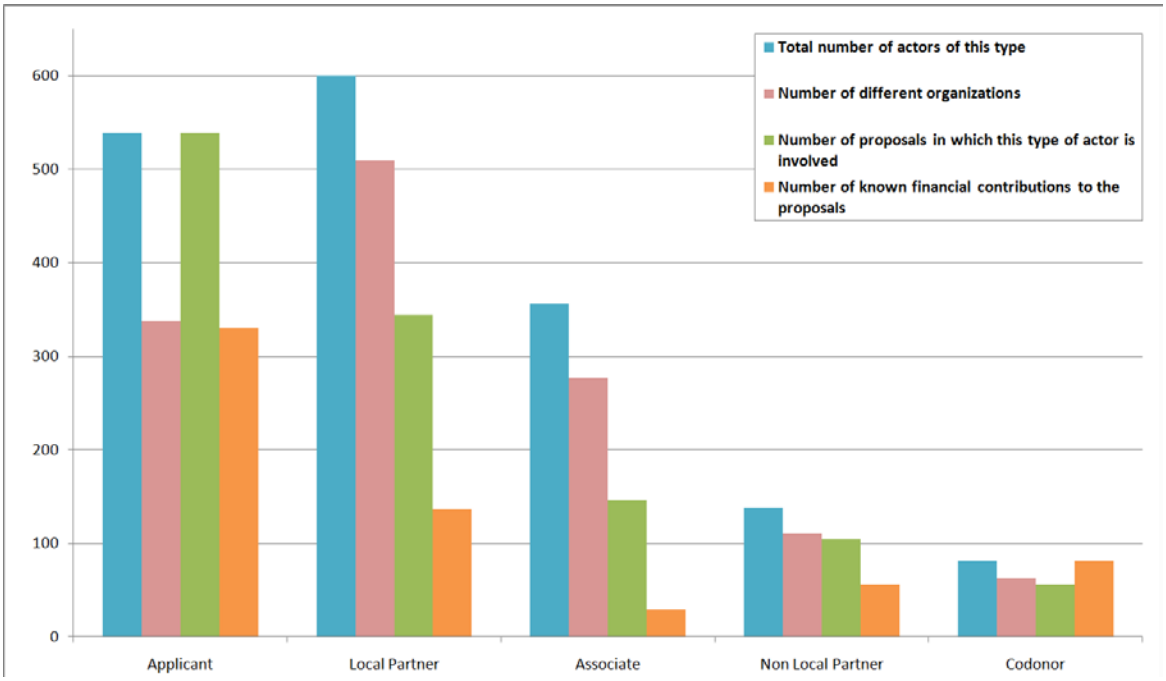


Figure 2.8: General figures by actor type for 2010 Water Facility proposals.

Actors by origin and legal status

Most applicants and co-donors were from Europe (Figure 2.9). As expected, all local partners were from ACP countries and almost all non local partners came from Europe. This figure is useful to get a quantitative overview of the general characteristics of the different actor types and should be kept in mind for interpreting the figures that come next. Local partners, applicants and associates represented the majority of actors and thus their characteristics influenced most the results of the global actor set.

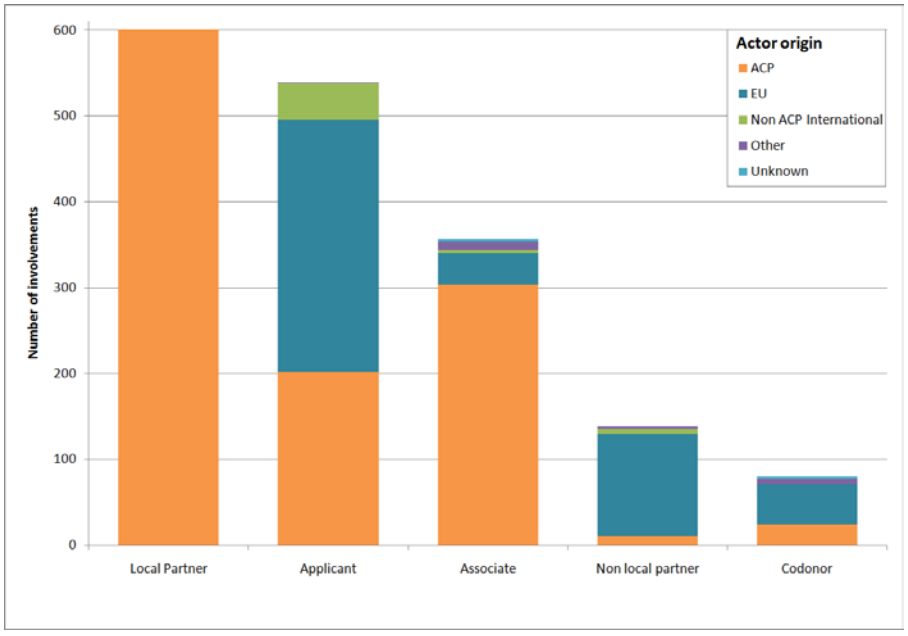


Figure 2.9: Origin of the different actors types for WF 2010 proposals.

The distribution of the 1210 different organizations involved in 2010 WF call by legal status is shown in the figure below. NGOs and local/decentralized authorities amounted to more than half of the proposal actor portfolio showing the important role these organizations play in the WaSH sector. Surprisingly the involvement of water and sanitation operators was low. But this could be the consequence of the type of project targeted by this CfP, which was "*water & sanitation basic infrastructure and hygiene promotion projects, focusing on the most vulnerable and needy in rural and peri-urban areas, promoting the use of small-scale appropriate technologies*". Water and sanitation operators as they are defined here (see definition in Table 1.5, section 1.5.2.2) are traditionally rather involved in large scale and heavy infrastructure projects.

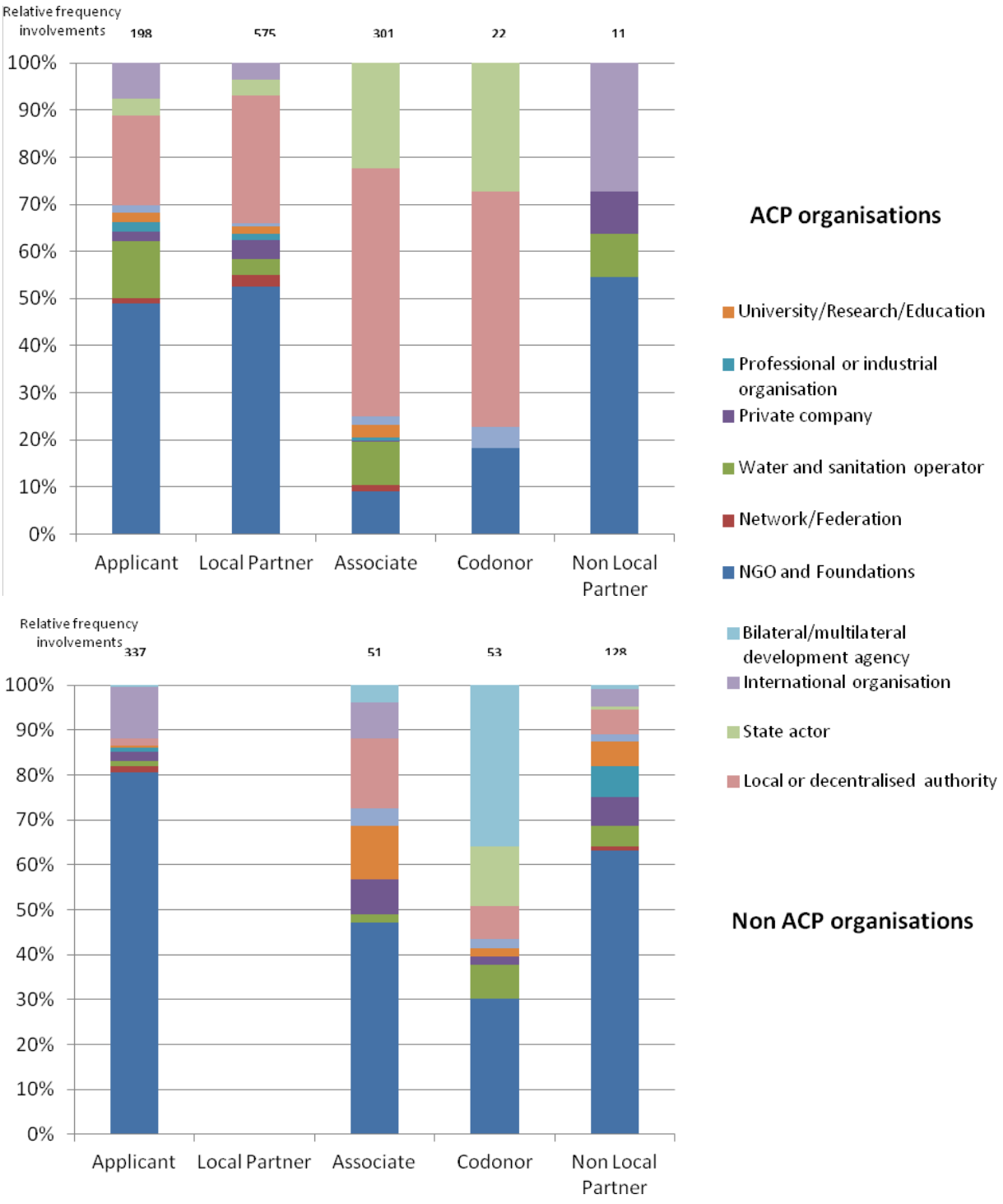


Figure 2.10: Share of actor legal by actor type and origin (WF 2010 CfP).

The majority of non ACP applicants were NGOs and foundations, while for ACP applicants NGOs and foundations amounted only to the half of applicants. Local/decentralized authorities, often those of the localities where the project would be implemented, and water and sanitation operators represented 30% of ACP applicants. Regarding local partners they were most times NGOs and foundations, followed by local authorities. The latter actor showed the most significant relative presence for associates for ACP actors. This is in agreement with the different roles these actors play in the implementation of the projects: NGOs and the authorities of the locations where the project would be implemented play an active role on the fields and sometimes financially, while state actors and local authorities of a higher administrative level are often associated to the project to make their assent sure. The EU associates set is more diversified, although NGOs and foundations represented almost 50% of them. Co-donors were mainly state actors, development agencies, local or decentralised authorities, financial institutions and NGOs. For ACP proposals actors, the most significant share of co-donors were local authorities, while for non ACP actors were NGOs and foundations. Regarding the co-donating NGOs, it was noticed several times during the data cleaning that they were the "mother"-NGO of the applying NGO.

Having a look to the same information in an inverse way (Figure 2.11) shows us that non ACP NGOs, Foundations and Networks were mainly applicants, while their ACP counterparts were mainly local partners. As noticed before, this underlines the different roles these organisations played in the proposals. ACP water and sanitation operators were applicants, local partners and associates, while water and sanitation operators were applicants, non local partners and co-donors for non ACP. No non ACP financial institution was involved as applicant. Non ACP state actors and development agencies mainly participate in the proposals as co-donors.

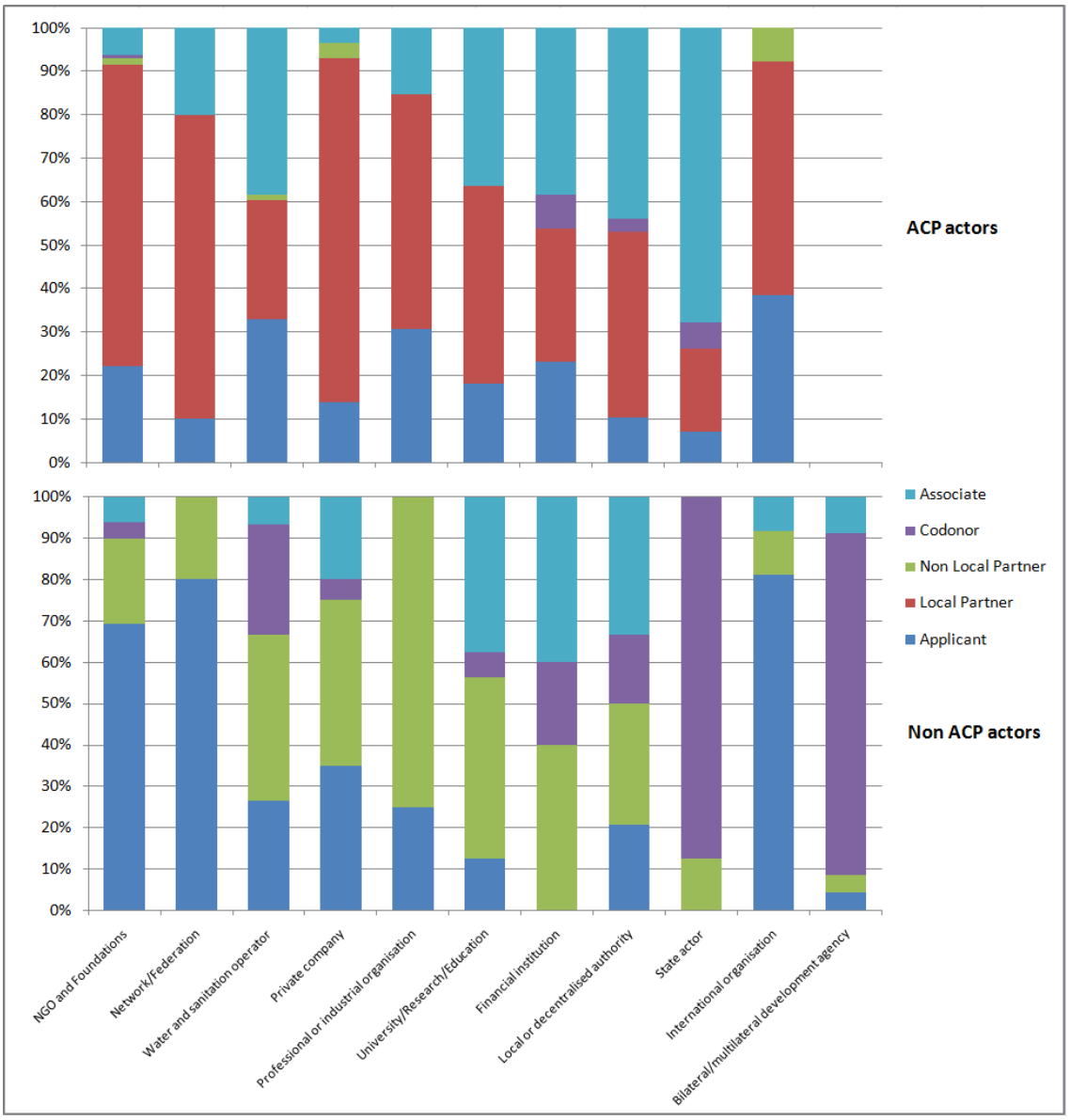


Figure 2.11: Share of actor type by legal status and origin (WF 2010 CfP).

Actors by legal status and origin of applicant

The most remarkable difference among different actor types considering the applicant legal status is that proposals submitted by private companies counted with the lowest share of local partners' presence; and that network/federations proposals were never including co-donors (Figure 2.12). As for differences considering applicant origin (Figure 2.13) international organizations tended to involve more actors in their projects than the other types of applicants, but did not involve co-donors.

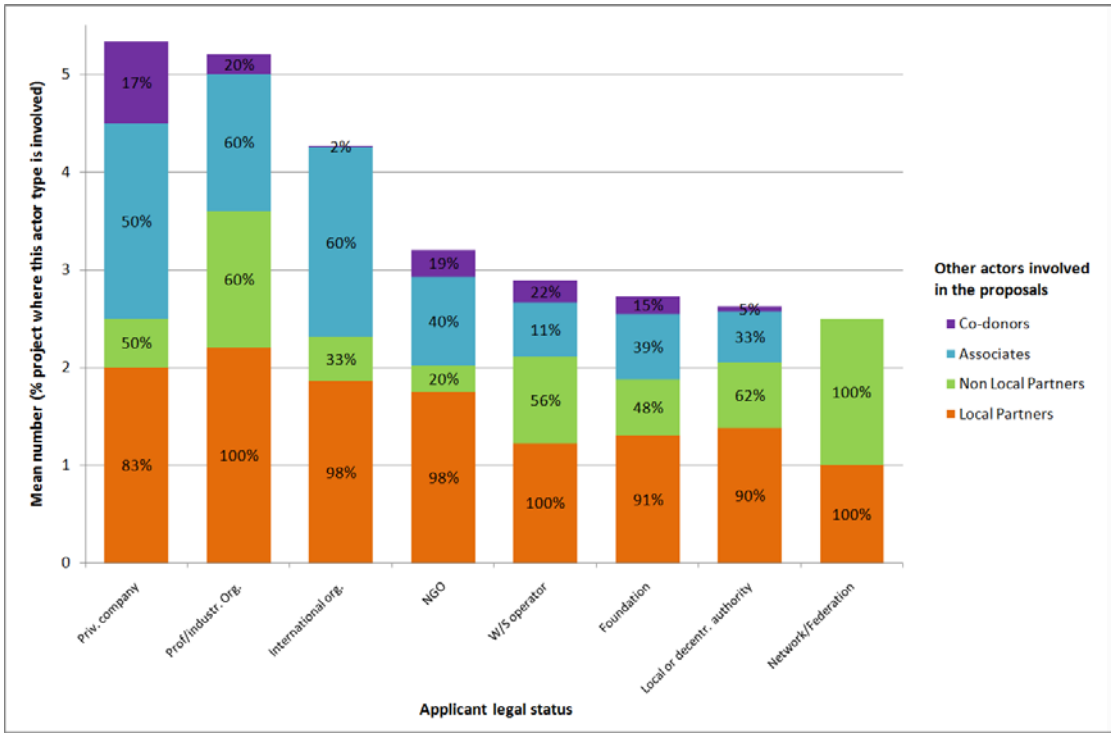


Figure 2.12: Proposal staffing by applicant legal status.

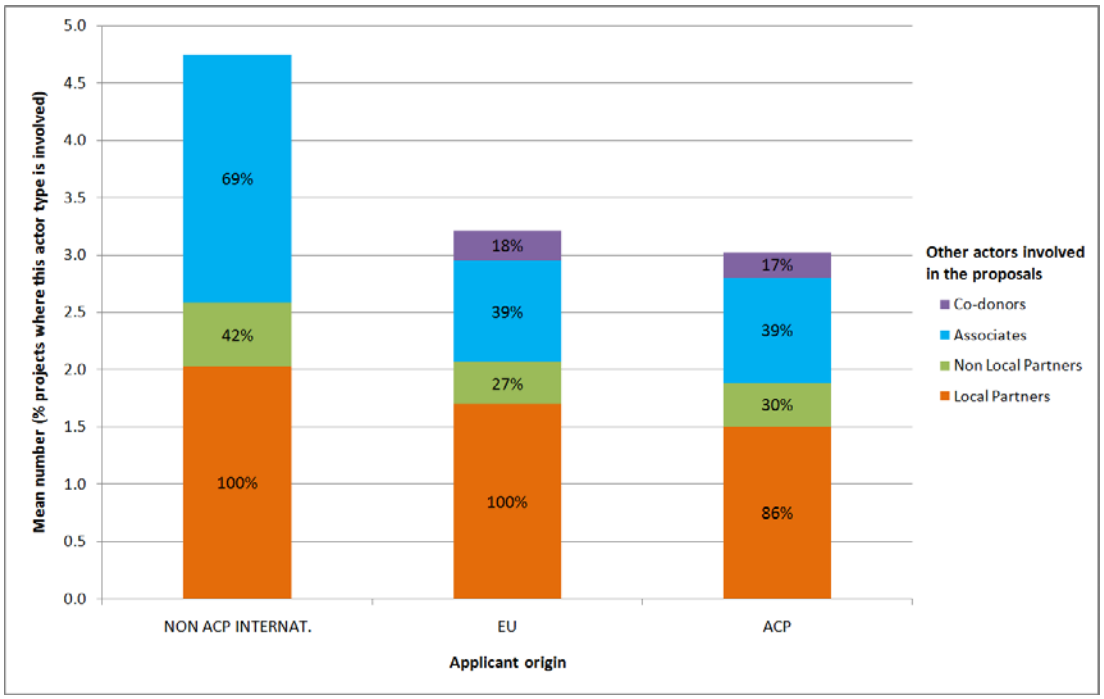


Figure 2.13: Proposal staffing by applicant origin.

Applicant analysis and project ownership

Up to 63% of proposals were submitted by non ACP organizations, most of them from Europe (55%) (Figure 2.14). The remaining third of proposals were submitted by local organizations. The applicant distribution by legal status was previously shown (Figure 2.10), where NGOs and

foundations represented the majority of applicants, followed by international organizations (for non ACP region), and by local/decentralized authorities (for ACP region). Universities/research institutions had little presence (only around 1%).

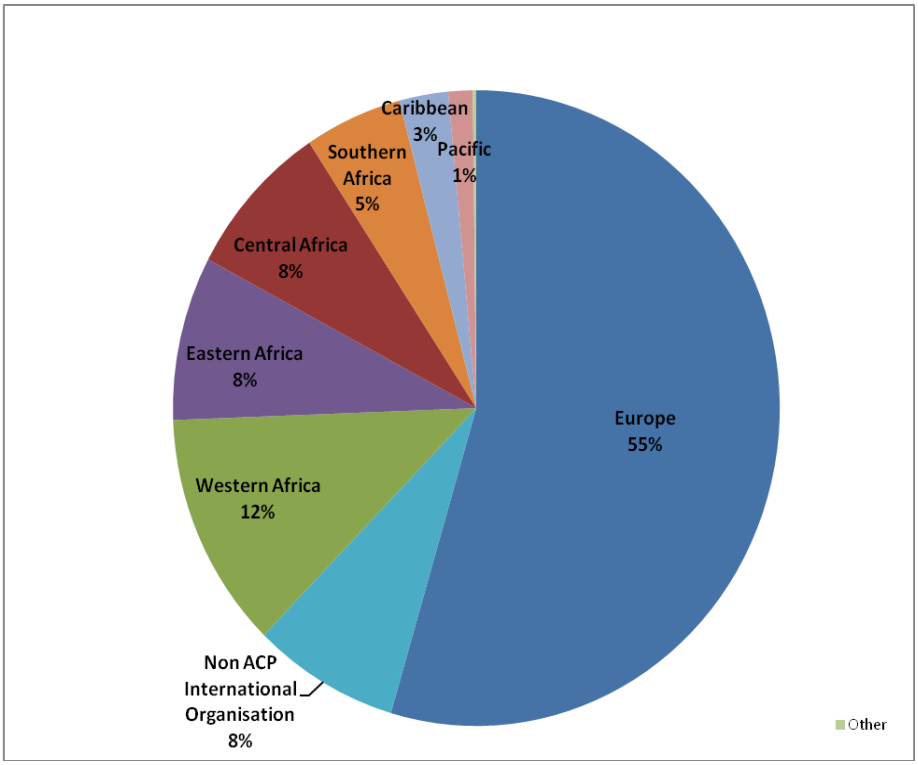


Figure 2.14: 2010 WF proposals distribution by applicant origin.

Next we looked at the applicant origin by country (see Figure 2.15.), bearing in mind that from the point of view of **project ownership**, it would be desirable that the leading project actor was a local organization. The region with highest share of local applicants (applicant from the same country as the project implementation) was for Caribbean, while the lowest was for Western Africa, with many differences among countries.

There were some countries where no proposal was submitted by a local applicant. They were, in decreasing order of number of applications submitted, Mozambique (MZ), Niger (NE), Central African Republic (CF), Somalia (SO), Ivory Coast (CI), Guinea-Bissau (GW), Haiti (HT), Liberia (LR), Timor-Leste (TL), Swaziland (SZ), Suriname (SR), Sao Tomé and Principe (ST), Eritrea (ER), Comoros (KM), Vanuatu (VU), Belize (BZ), Guyana (GY), Gabon (GA), Equatorial Guinea (GQ), Djibouti (DJ), Federated States of Micronesia (FM), Papua New Guinea (PG) and Solomon Islands (SB). All these states are either very poor states, states in conflict or SIDSs, but still it is difficult to draw any conclusion from these observations.

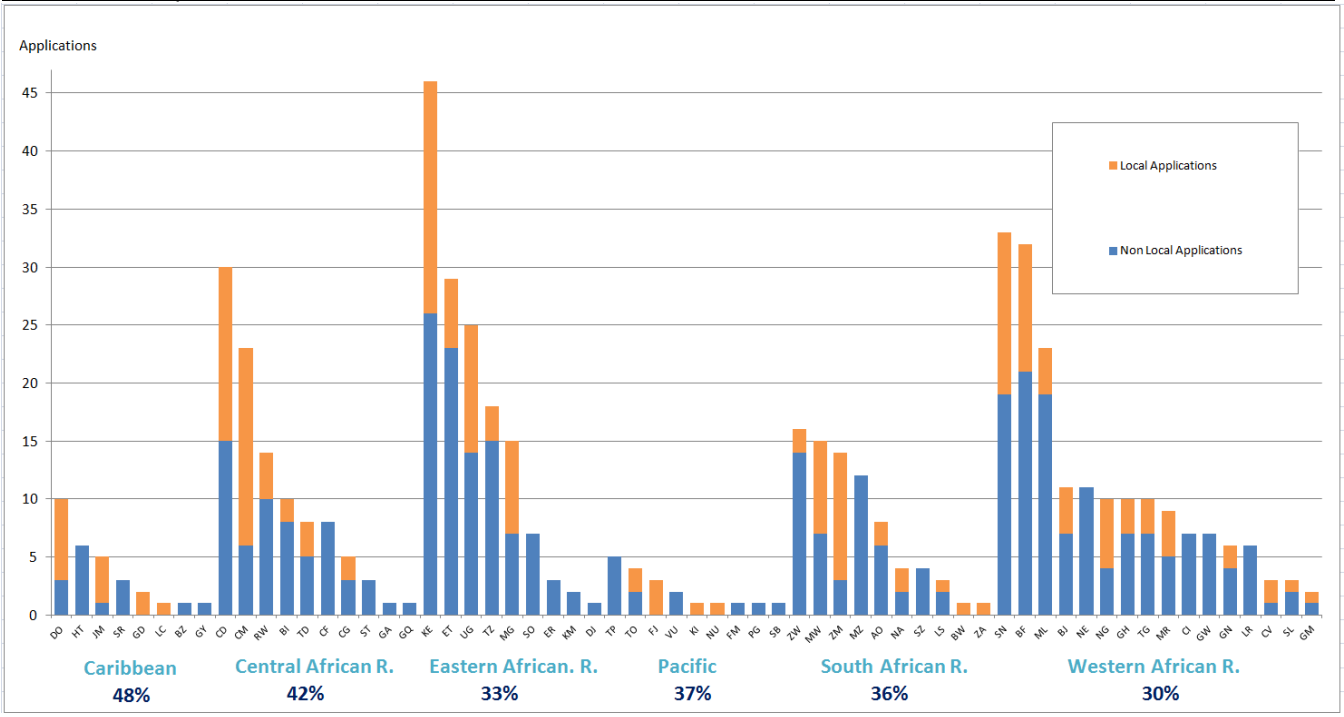


Figure 2.15: Local and non local applications by country (with overall percentage by region).

On the contrary, there were some countries for which the share of local applications was superior to 50% (Table 2.3), being Cameroon and the Democratic Republic of the Congo the countries where local net involvements were more. Results for several SIDS (Grenada, Santa Lucia, Fiji, Kiribati and Niue) as well as Botswana and South Africa should be read carefully, since the results correspond to a very low number of applications.

Region	Country	Total applications	% local applications
Caribbean	Grenada*	2	100
	St. Lucia*	1	100
	Jamaica*	5	80
	Dominican Republic*	10	70
Central Africa	***Cameroon***	***23***	*74*
	Democratic Republic of the Congo	***30***	*50*
Eastern Africa	Madagascar	15	53
Pacific	Fiji*	3	100
	Kiribati*	1	100
	Niue*	1	100
	Tonga*	4	50
Southern Africa	Botswana	1	100
	Zambia	14	79
	Malawi	15	53
	Namibia	4	50
Western Africa	Ivory coast	3	67
	Nigeria	10	60
	The Gambia	2	50

Table 2.3: Countries for which the share of local applications is superior to 50%. (indicates Small Island Developing States).*

Actors involved in more than one project

As to get a better understanding of the actor portfolio, here we target the question of what was the profile of organizations that were involved in more than one project. There were 235 organizations out of 1210 that were involved in more than one proposal. The total number of involvements of these organizations amounts to 740 and is distributed as shown on Figure 2.16. The majority of the multiple involvements were as applicant.

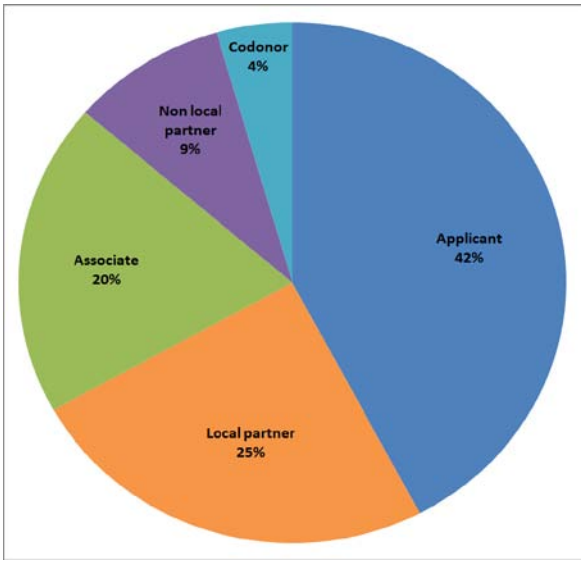


Figure 2.16: Involvements by actor type for organizations with more than one proposal to the WF 2010 CfP.

According to legal status, organizations that were involved in a higher number of proposals were ACP state actors and international organisations, non ACP financial institutions, professional organisations and development agencies (Figure 2.17).

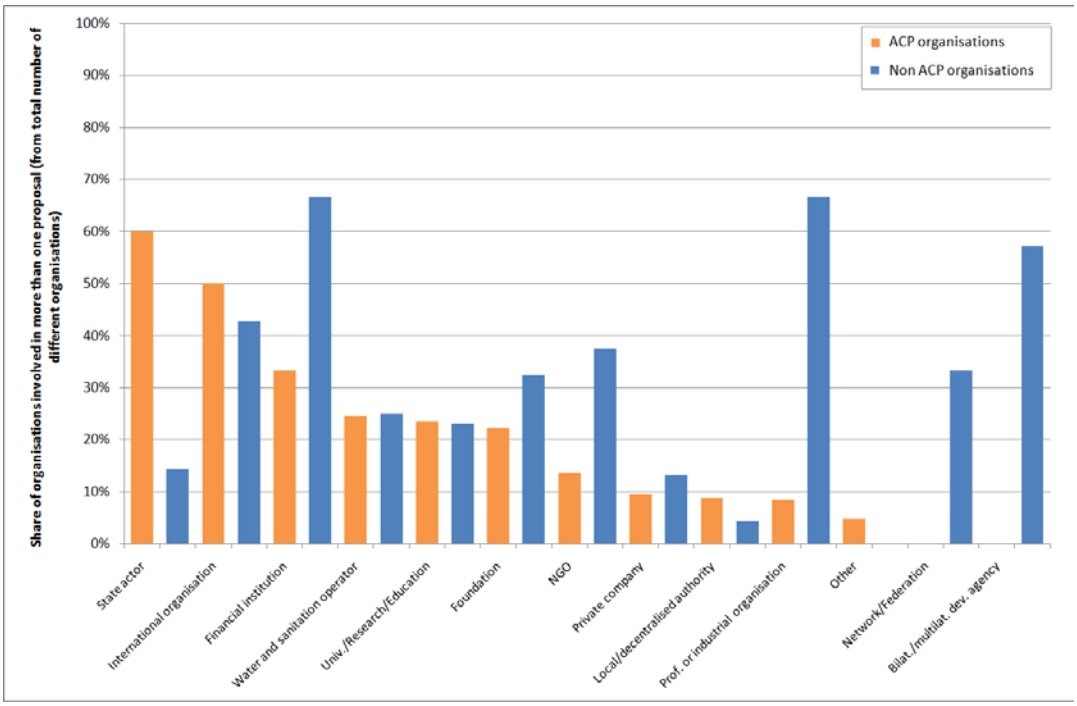


Figure 2.17: Share of organizations involved in more than one proposal.

In most cases, these organisations were involved in 2 proposals (Figure 2.18). As shown by the previous figure as well, development agencies and international organisations tended to be involved in a higher amount of proposals than other organisations.

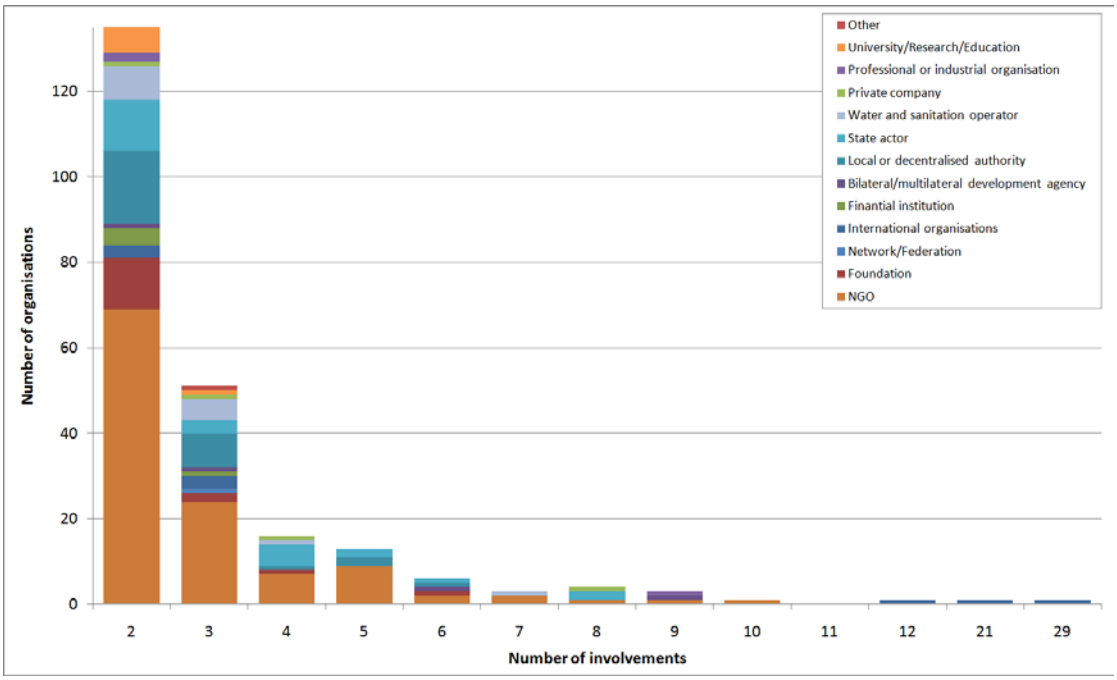


Figure 2.18: Number of involvements distribution for organizations involved in more than one proposal.

Analyzing jointly the involvements of actors by origin and by legal status (Figure 2.19) we found that NGOs and foundations both coming from Europe, represent the majority of actors with multiple involvements. As for ACP organizations, apart from NGOs, there was more presence of local/decentralized authorities, state actors and water and sanitation operators. A few non ACP international organizations submitted more than one proposal.

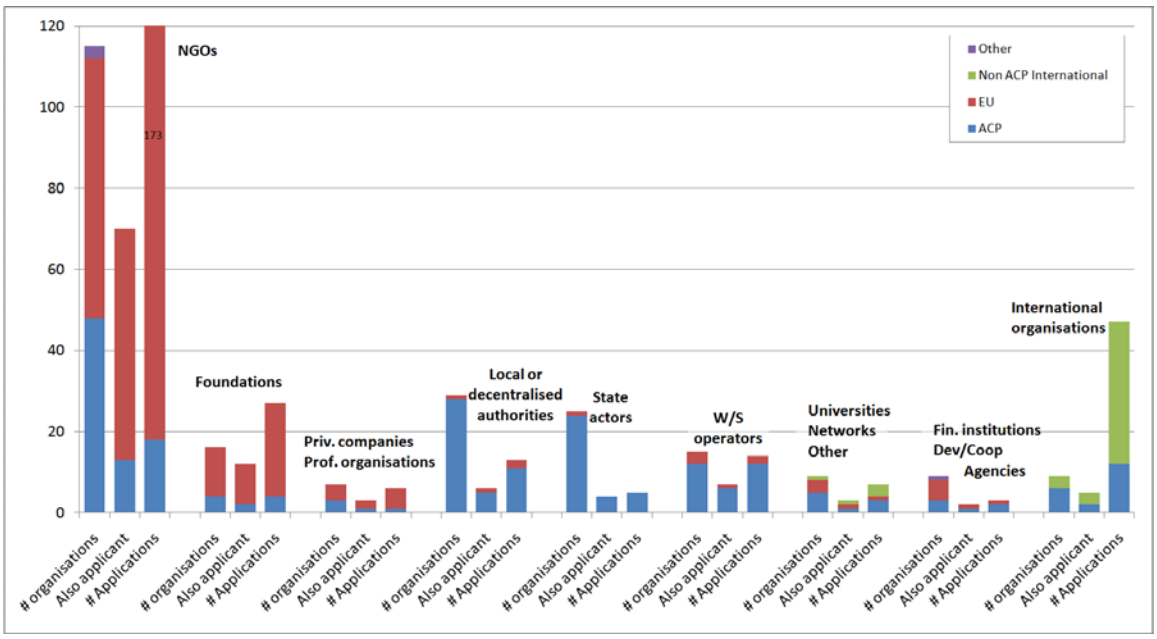


Figure 2.19: Organisations involved in more than one project (Total number, Number involved as applicant, Number of applications).

Regarding actors specifically as applicants, as already displayed in Table 2.2, applicants were on average submitting 2.6 proposals to the WF 2010 call, apart from their first application, with values ranging between 0 and 21. 80 applicants submitted more than one proposal (see Table 2.2.). International organizations submitted far more proposals per entity than the other types of organizations.

Region of origin # Legal status	Number of applicants	% total	Range of submitted proposals	Mean proposals submitted
EU#NGO	48	41%	2-10	3.4
EU#Foundation	7	28%	2-5	2.9
ACP#NGO	5	6%	2	2
ACP#Water and sanitation operator	4	22%	2-3	2.5
ACP#Local or decentralised authority	3	9%	2-5	3
ACP#Foundation	2	50%	2	2
International#International organisation	2	29%	12-22	17
International#Network/Federation	1	100%	3	3
ACP#Financial institution	1	50%	2	2
ACP#University/Research/Education	1	50%	3	3
EU#Professional or industrial organisation	1	50%	2	2
EU#Water and sanitation operator	1	33%	2	2
EU#Local or decentralised authority	1	25%	2	2
EU#Private company	1	25%	3	3
ACP#International organisation	1	20%	11	11
ACP#State actor	1	17%	2	2

Table 2.4: Applicants having submitted more than one proposal.
Applicant profiles (Region of origin # Legal status) are ordered from the biggest to the smallest number.Number of applicants responds to the number of applicants of the categories combination submitting more than one proposal. % total is the share of each categories combination from the total of this applicant type.

Private sector involvement

In 2010 there were 37 different private companies involved in 46 different proposals. 56.8% of them were from ACP countries (see Figure 2.20). Private companies were mostly involved in the proposals as partners (62% of involvements), especially as local partners (Figure 2.21).

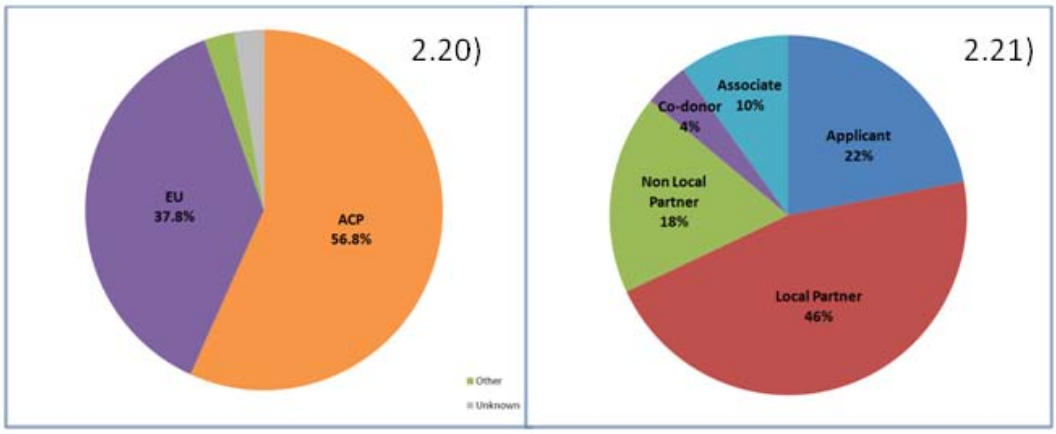


Figure 2.20: Origin of private companies involved in WF 2010 proposals.
Figure 2.21: Involvement of private companies in WF 2010 proposals.

Professionally, these private companies were mostly consultancy, water engineering and drilling companies. 46% of them would contribute to the project financing.

All ACP regions included the involvement of private companies except for the Pacific, being the Democratic Republic of the Congo, in Central Africa, the country with a bigger number of involvements (Figure 2.22).

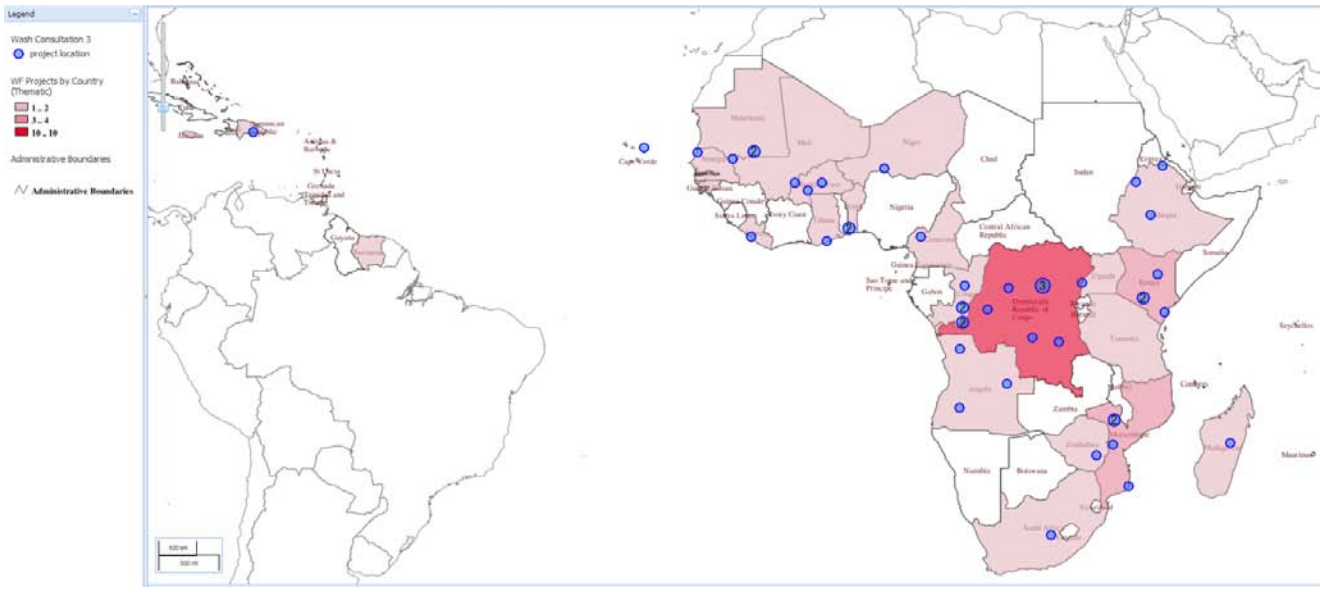


Figure 2.22: Geographic distribution of proposals where the private sector was involved. Blue circles represent project addresses, the number of projects per countries is to be read from the country's color.

Water supply and sanitation sector operators' involvement

There were 61 private and public water and sanitation operators (W/S operators) involved in 79 different proposals. They were involved as all actor types in the proposals and were mainly ACP organizations (Figure 2.23). W/S operators with origin in the EU were either decentralized public authorities in charge of managing the water and sanitation in their region or private companies operating water and sanitation facilities. ACP W/S operators were national and decentralized public authorities and a few private companies.

In terms of financial contributions of W/S operators, all EU applicants being W/S operators would contribute financially to the project, while only 16.7% of ACP W/S operator applicants would do so (Figure 2.24). However, in sum ACP W/S operators would contribute financially more to the proposals they were involved in (12 organizations, 80% of EU, 5.8 M €) than EU W/S operators (24 organizations, 16.2% of ACP, 3.3 M€) (see Figure 2.24).

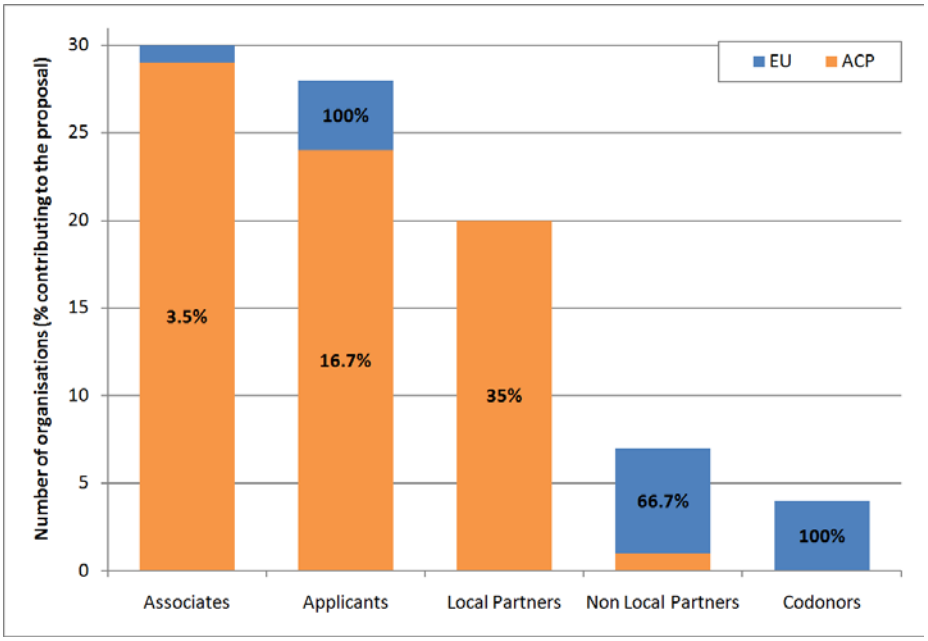


Figure 2.23: Water and sanitation operator involvement share contributing financially to WF 2010 proposals.

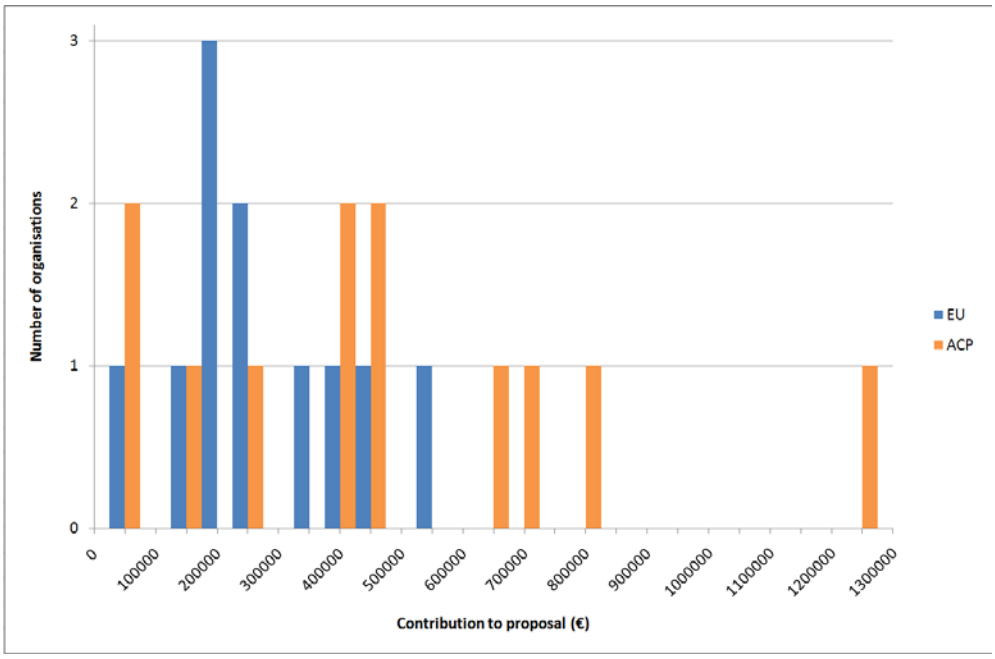


Figure 2.24: Financial involvement of Water and sanitation operators in WF 2010 proposals.

EU members and Development Agencies' involvement

There were 11 EU member state governments or development agencies involved in 20 different proposals (Table 2.5). They were mostly involved as co-donor, being very low their financial contribution: a total amount of 8.4 M €, which would reach less than 1% of the sum of all proposals funding request.

Origin	Name	Involvements	Involment as
AT	Austrian Development Agency	6	Co-donor
BE	Cooperation Technique Belge	3	Applicant, Associate, Co-donor
BE	Directorate General for Development Cooperation	1	Co-donor
DE	German Embassy in Democratic Rep. of the Congo	1	Co-donor
DE	Deutsche Gesellschaft für Technische Zusammenarbeit	2	Associate, Non Local Partner
DK	DANIDA	1	Co-donor
FI	Ministry for Foreign Affairs	2	Co-donor
FR	Agence Française de Développement	9	Co-donor
FR	Ministère des affaires étrangères et Européennes	1	Co-donor
IE	Irish Government	1	Co-donor
LU	Government of Luxembourg	1	Co-donor

Table 2.5: Development agencies involved in the WF 2010 proposals.

Non ACP international organizations' involvement

There were 7 non ACP international organizations involved in 43 different proposals (Table 2.6), which were mostly involved as applicants (Figure 2.25). In a very high share (85.4% of their involvements) they would financially contribute to the proposals.

The proposals with engagement of non ACP international organizations were located in 35 different countries with presence in all ACP regions (Figure 2.26).

Name	Involvements	Involvement as
United Nations Children's Fund (incl. national offices)	29	Applicant, Associate, Non Local Partner
United Nations Human Settlements Programme	12	Applicant
World Health Organisation	3	Applicant, Associate, Non Local Partner
International Organisation for Migration	1	Applicant
United Nations Development Programme	1	Applicant
United Nations Educational, Scientific and Cultural Organisation	1	Applicant
United Nations Environment Programme	1	Applicant

Table 2.6: Non ACP international organisations involved in the WF 2010 proposals.

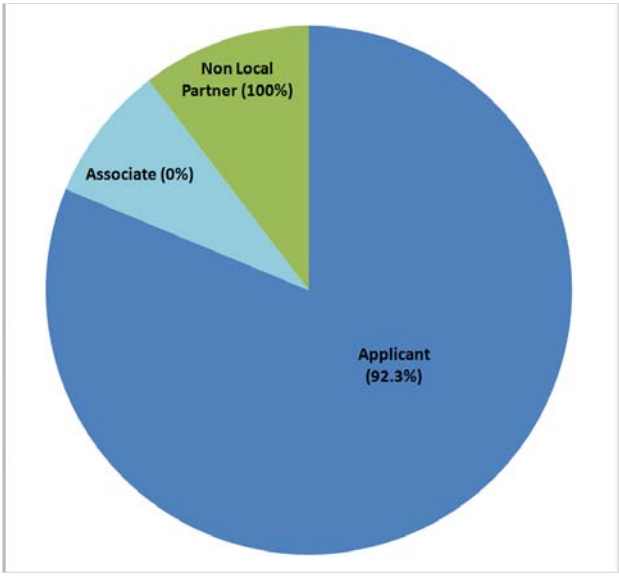


Figure 2.25: Non ACP international organizations involvement in WF 2010 proposals and share of proposal in which they would contribute financially.

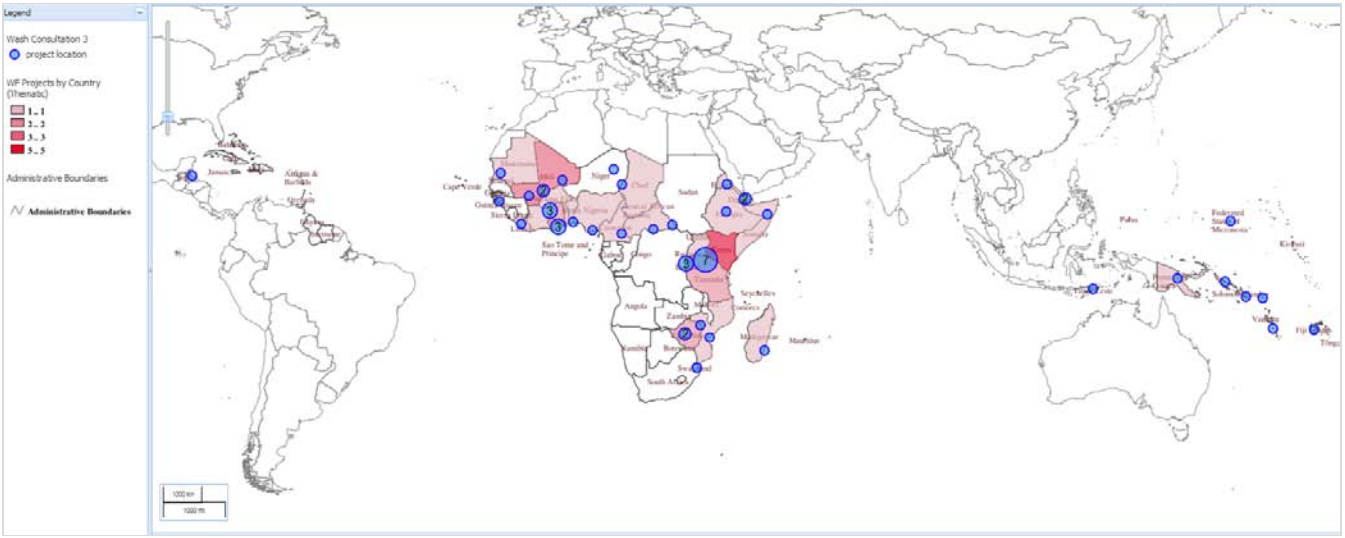


Figure 2.26: Geographic distribution of proposals where non ACP international organizations were involved. Blue circle represent project addresses, the number of projects per countries is to be read from the country's color.

2.2.3.3. Project duration and type

As already shown in Table 2.1, most proposals had medium-term duration (between 36 and 48 months), followed by long- term (from 48 and up to 60 months) proposals (Figure 2.27).

Most proposals were to be implemented in rural areas, followed by peri-urban ones, which shows a clear focus on the first type of projects (Figure 2.28).

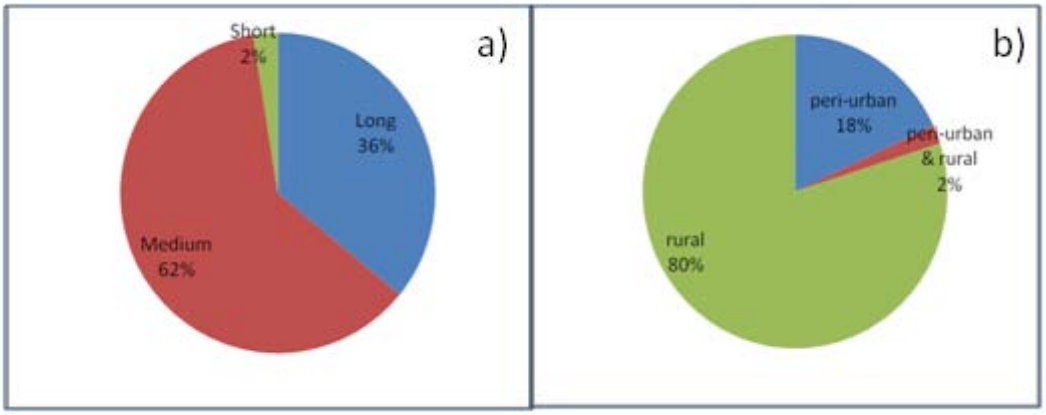


Figure 2.27: a) Duration of proposals. b) Project type.

2.2.3.4. Activities and technologies

Remarks on data quality

At proposal level, analyzing the technology data can help assessing if the call for proposal was answered with the expected type of projects and which were the "fashioned" technologies and project strategies of the moment. Technology data was available for 361 Annex F out of 371. This is to say that applicants filled in this part of the form quite willingly. However, as explained in the data cleaning part, some remarks should be taken into account when drawing conclusions from this data. It was not possible to check the accuracy of this kind of data in an automatic way. Furthermore, the data structure had an important influence on the feasibility of analyses: if information was not asked for, asked for in an imprecise way or the format under which it is available is not exploitable, it will not be possible to retrieve it later on (because it is too time and human resource consuming, applicants generally do not reply to demands for further information, etc). Thus, several drawbacks of the way the data was asked for came to light. The major ones were the redundancies within the list of technologies and between technologies and activities. This has as consequence that some data present several times but always in a slightly different way.

Thus, the analyses presented below aim at providing an idea on the available information, rather than accurate results. The issue of data quality will be discussed in more detail in the last part of this report (Part 3) and a revised technologies and activities list will be proposed.

Results

Almost all proposals submitted included activities on basic water supply and basic water sanitation, while much smaller shares were found for the other activities types (Figure 2.28). Although the inclusion of three types of activities —basic supply, basic sanitation and hygiene promotion—, was a requirement of the call, only less than 15% of the presented proposals included activities on these three types together.

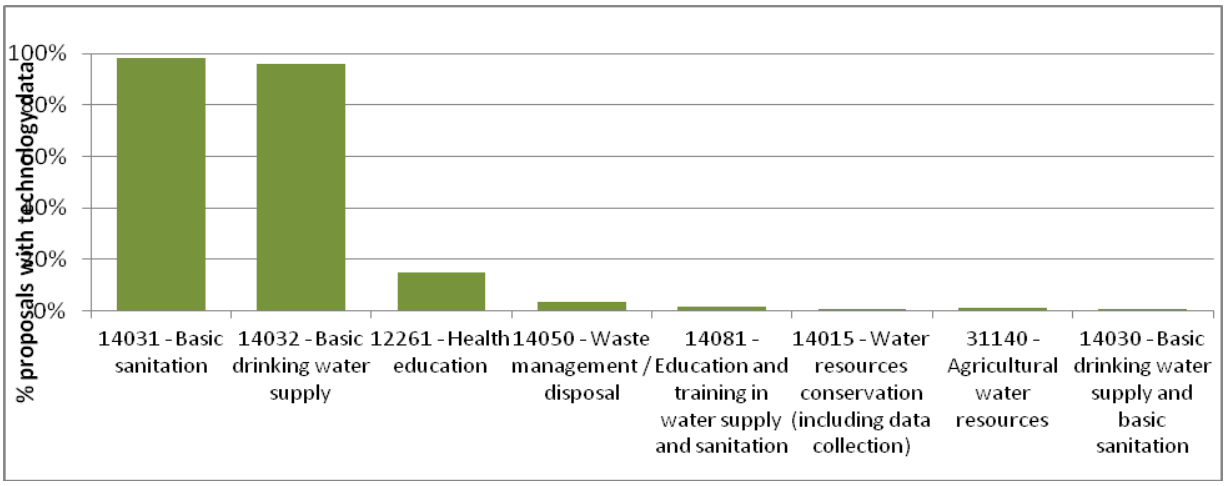


Figure 2.28: Share of proposals including activities on the different typologies (DAC codes).

On average, applicants listed 4-5 different technologies per proposal. More into detail, tube wells/boreholes (basic drinking water supply technologies) and pit latrines (basic sanitation technologies) were the most commonly cited technologies (Figure 2.29). This is not so surprising since the technologies are quite simple to implement and among the cheapest. The Community-Led Total Sanitation approach developed at the end of the 90's was cited 30 times (Figure 3.29), showing the importance that this approach is gaining in the WaSH sector. In many cases, technology types were not specified or corresponded to technologies not considered as improved.

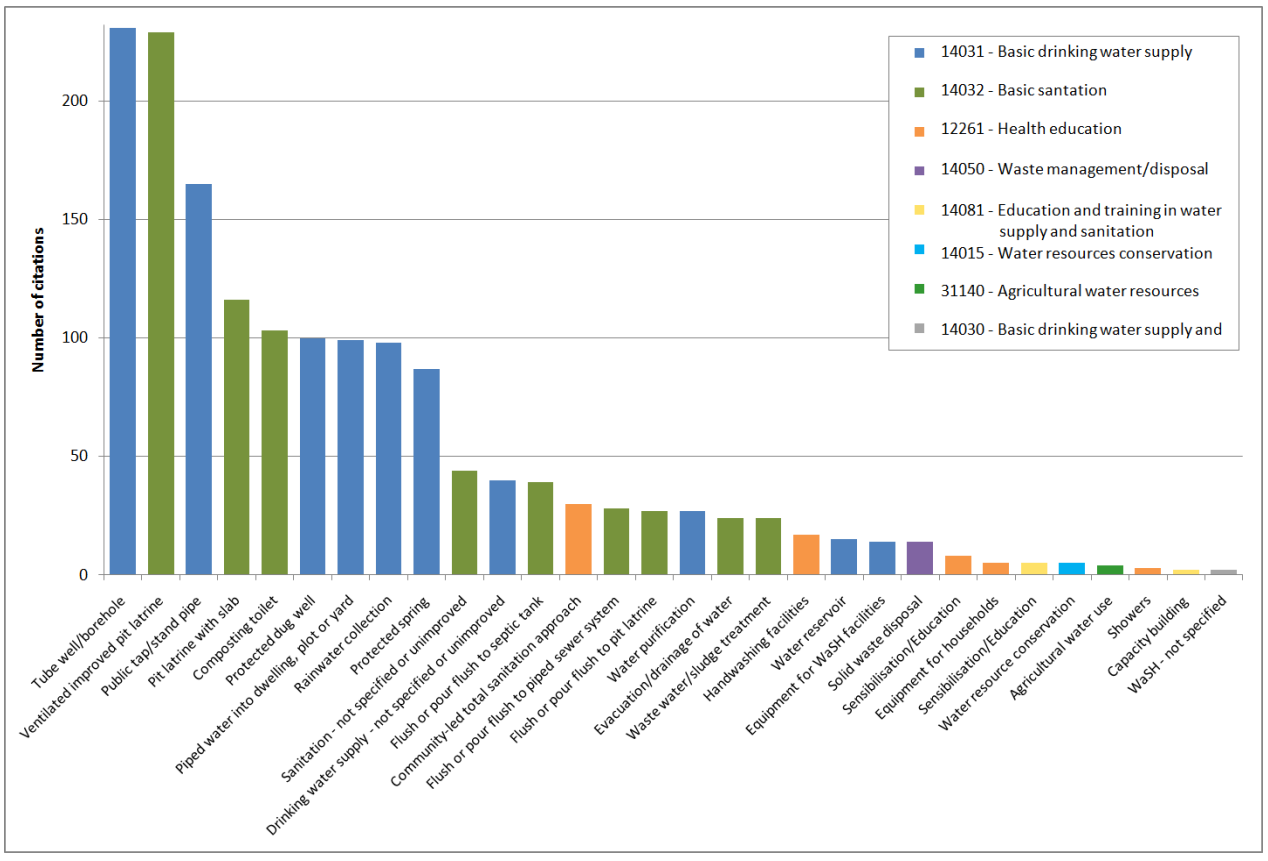


Figure 2.29: Technology citations in WF 2010 proposals.

2.2.3.5. Project financing

Total projects costs and requested EC funding showed the distribution displayed respectively in figures 2.30 and 2.31. Two marked peaks can be identified around 3.3 M € and 2.5 M €, respectively. They correspond to the maximums allowed for funding (92% of applications request 70-75% of funding). For total project costs (Figure 2.26), another peak around 2.5 M could be also identified, which may be derived from the confusion of applicants of the maximum EC grant request with a maximum from allowed project costs.

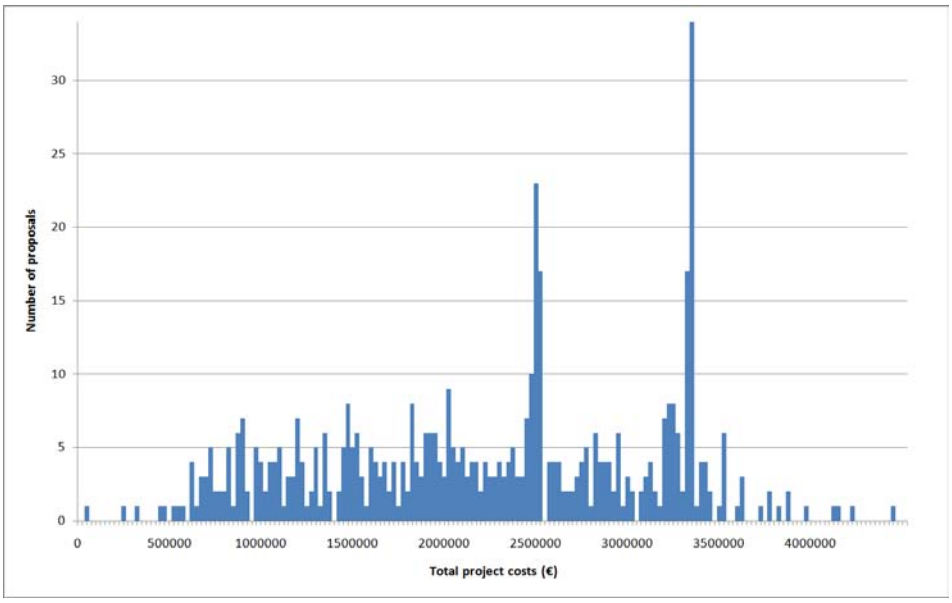


Figure 2.30: Proposal distribution by total project costs.

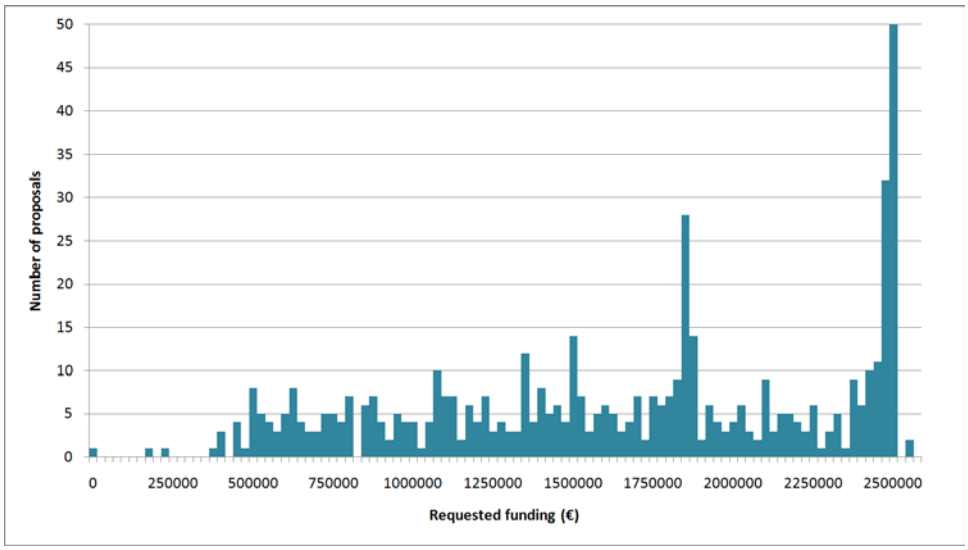


Figure 2.31: Proposal distribution by requested funding.

Mean values for total project costs, EC requested funding and applicant financial contribution for each applicant legal status are displayed in Figure 2.32. Here we can notice than, on average, for all applicant legal status, applicant financial contribution was much lower than requested funding. There were few cases (universities, bilateral institutions) that would not at all financially contribute to their project. For the rest, the difference between total project costs and applicant contribution and requested funding was to be given by other actors such as co-donors.

Financial institutions were asking on average for the highest grants and proposing the most expensive projects, but also attracting more funding from other sources (Figure 2.32).

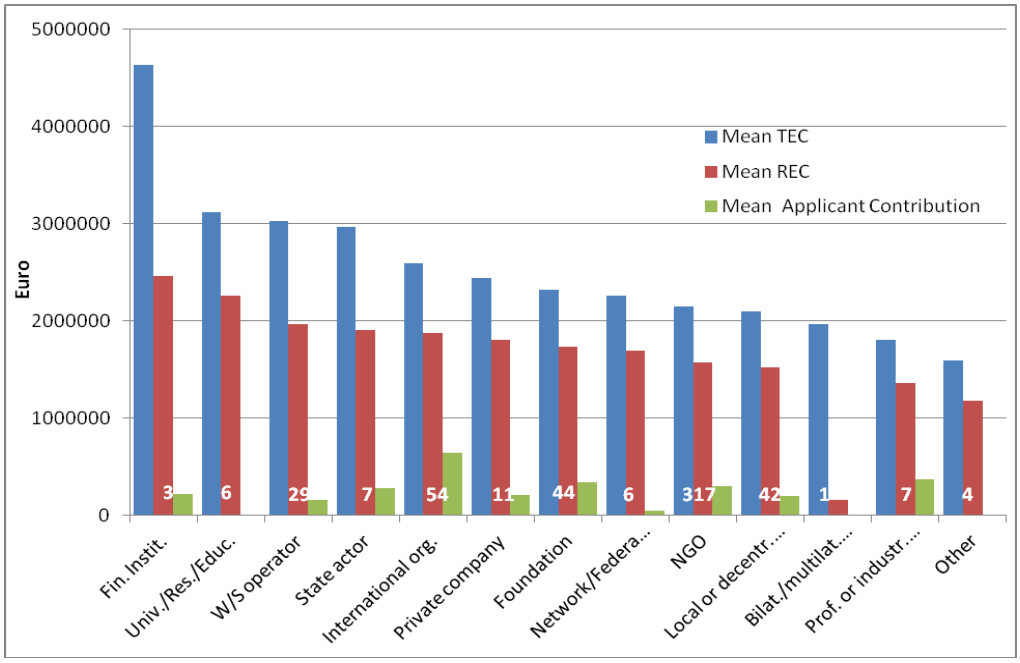


Figure 2.32: Total project cost (TEC), requested funding (REC) and applicant financial contribution by applicant legal status.

Total project costs showed important differences among applicants with different status (Figure 2.33). Most applicants show very variable ranges, except for the case of financial institutions and development agencies, which presented proposals only with the highest cost ranges.

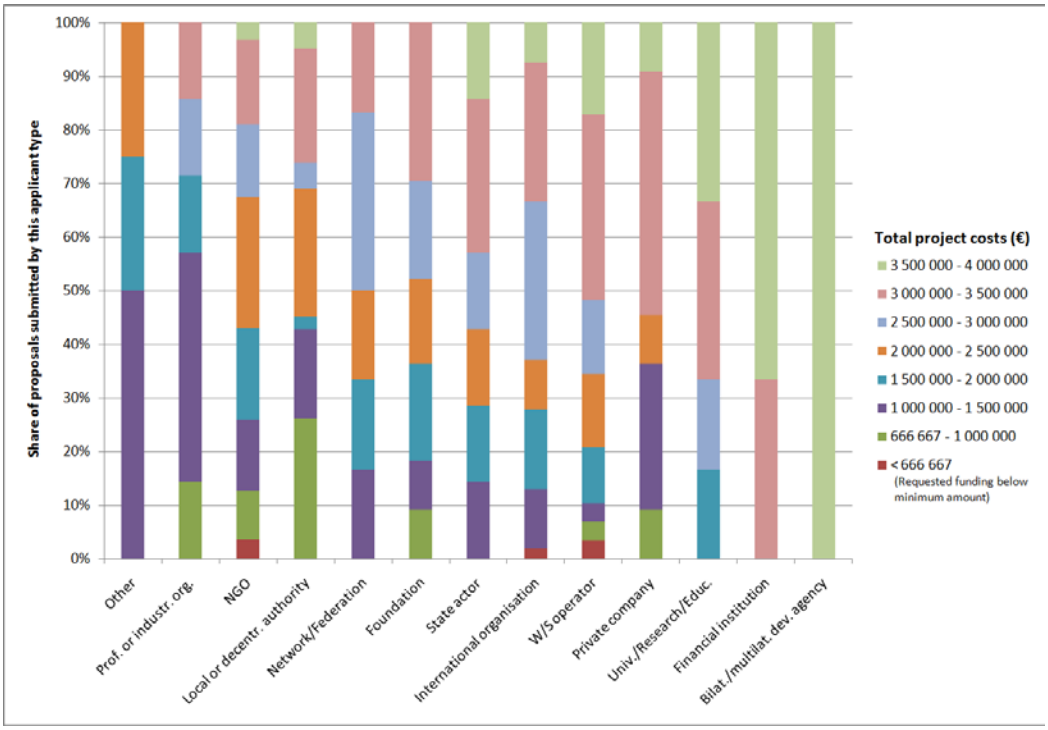


Figure 2.33: WF 2010 proposal distribution by applicant type and total project costs.

Considering the total project cost, and as we could anticipate from Figure 2.32 and now see in Figure 2.34, the most relevant contributions came from the Water Facility (72.6%), followed by applicants (19.3%) and with partners and co-donors assuming the remaining sum (8.1%).

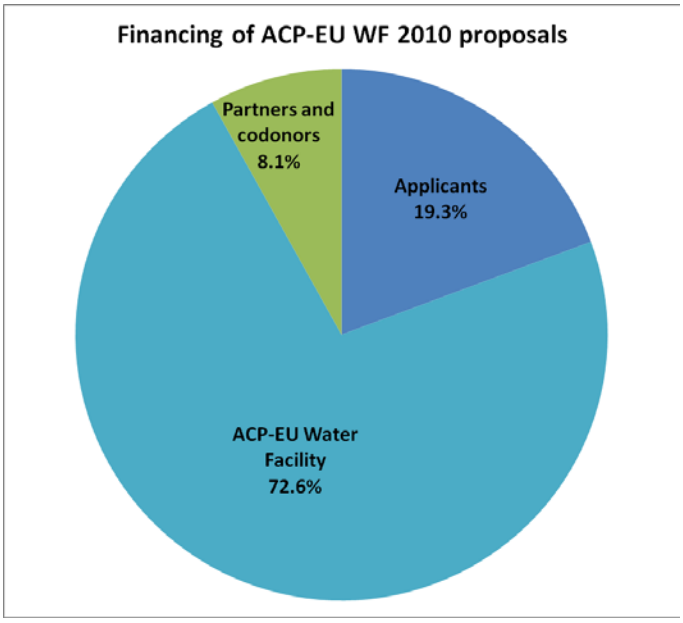


Figure 2.34: Financing of WF 2010 proposals (share of total project costs).

As for the number of financial contributors, the most frequent ranged among 2 and 3, with applicants contributing to project financing in most cases (Figure 2.35).

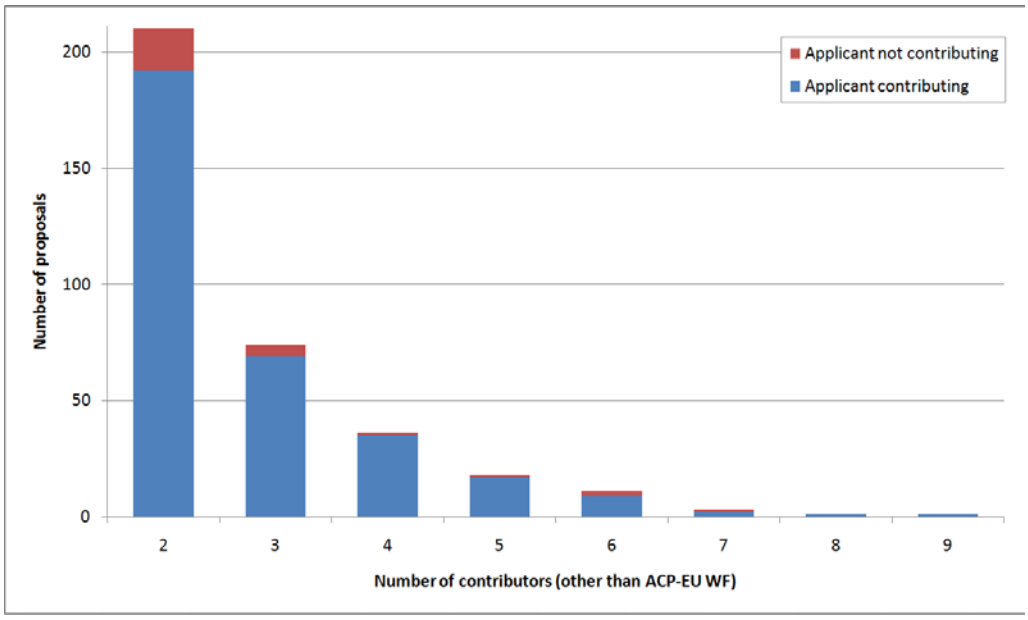


Figure 2.35: Distribution of number of contributors to project financing other than WF.

More in detail, the partners and co-donors financial contributions, which as above mentioned reached only around 8% of proposals financing, came about 50% from ACP organizations and 37% from EU (Figure 2.36). The largest contribution share came from the beneficiaries of the actions. Beneficiaries, action earning and local authorities were counted together because for all three there was no sufficient data available as to be able to distinguish between the benefitting individual contributions and the benefitting localities contributions. The next share came from EU NOGs. It has been noticed several times during the data cleaning process that these other NGOs are the mother-NGOs of the applying NGO. Most development agencies are from the EU.

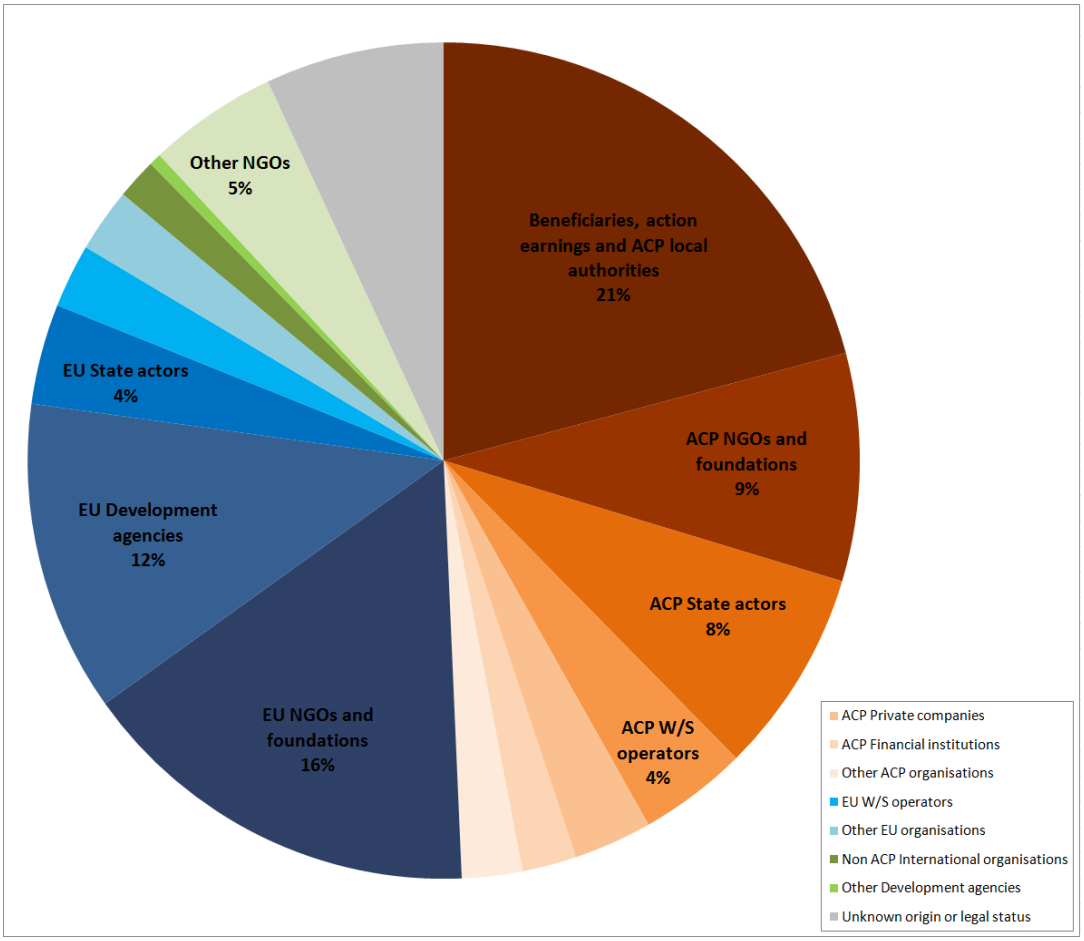


Figure 2.36: Partners and co-donors contributions for WF 2010 proposals.
Share of different types of partner and co-donor contribution to project financing.

2.2.3.6. Budget closure

Remarks on data quality

Preliminary statistics on the budget breakdown per activity type (drinking water, sanitation and hygiene promotion) were performed during the WF selection procedure. The share of each activity budget is shown with regard to the sum of yearly direct eligible costs (SDEC) and the sum of all three activity budget (WaSH budget) on Figure 2.37. This figure was realized with the data of 238 proposals that passed the required budget consistency checks (see *Preliminary statistics report* for more detail).

This exercise has proven quite time consuming (tricky data cleaning) for obtaining in the end a mitigated result, especially in the sense that it does not say much about the technologies and activities implemented on the field. Thus this way of investigating the technical characteristics of the projects has not been developed to further detail here. Instead, an important effort was done on cleaning the available technology data.

Results

Considering the previous remarks, 60% of the budget was dedicated to drinking water supply activities, while sanitation and hygiene promotion more or less equally shared the remaining funds (Figure 2.37). Although the application guidelines explicitly stipulated that the projects had to implement activities in all three sectors, this budget allocation shows that the focus of the WaSH aid sector still mainly lays on drinking water supply.

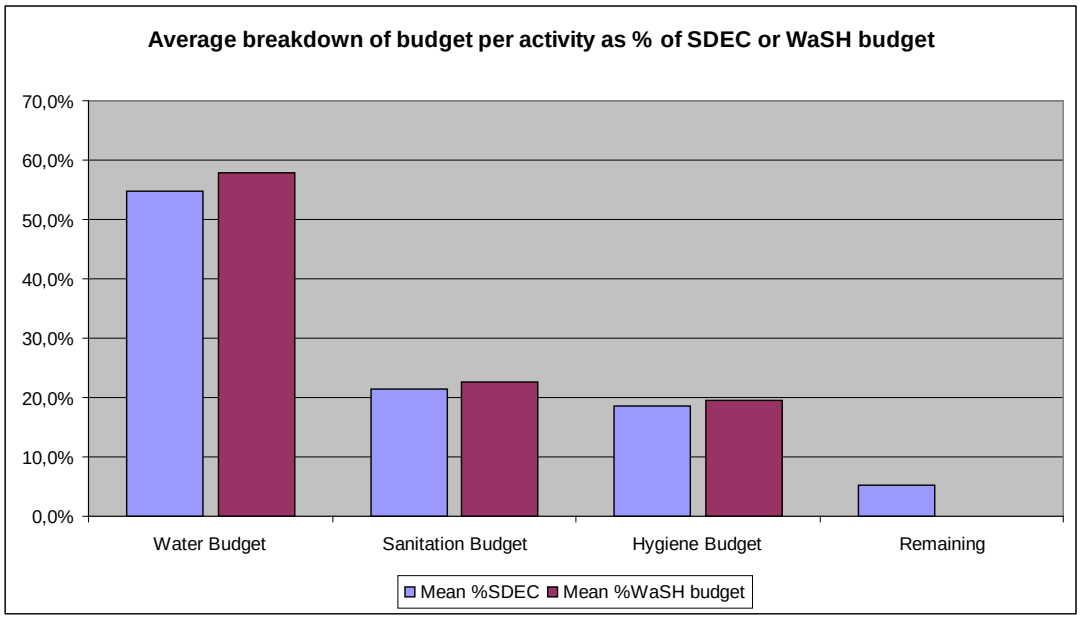


Figure 2.37: Proposal direct eligible costs allocated by WaSH sector (from Preliminary statistics report).

2.2.3.7. Expected improvement of local water services

Drinking water and sanitation coverage in the projects' regions were in general terms low, with a mean of 30% and 20%, respectively, and the distribution display in figures 2.38a and 2.38b. These variables showed a big dispersion among proposals. Particularly, many project areas had sanitation coverage under 20%.

Of similar magnitude than the above variables on water supply and sanitation were the improvements declared by applicants on these fields (figures 2.39a and 2.39b).

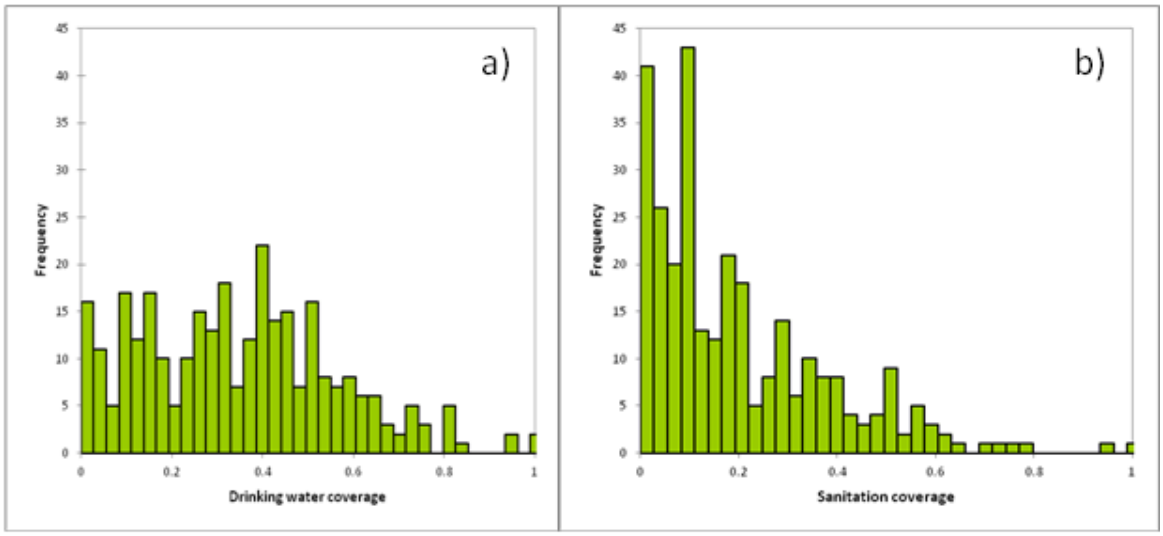


Figure 2.38: a) Drinking water coverage in the project area as declared by applicants. b) Sanitation coverage in the project area as declared by applicants.
The maximum value (1) of x axis corresponds to a total (100%) coverage.

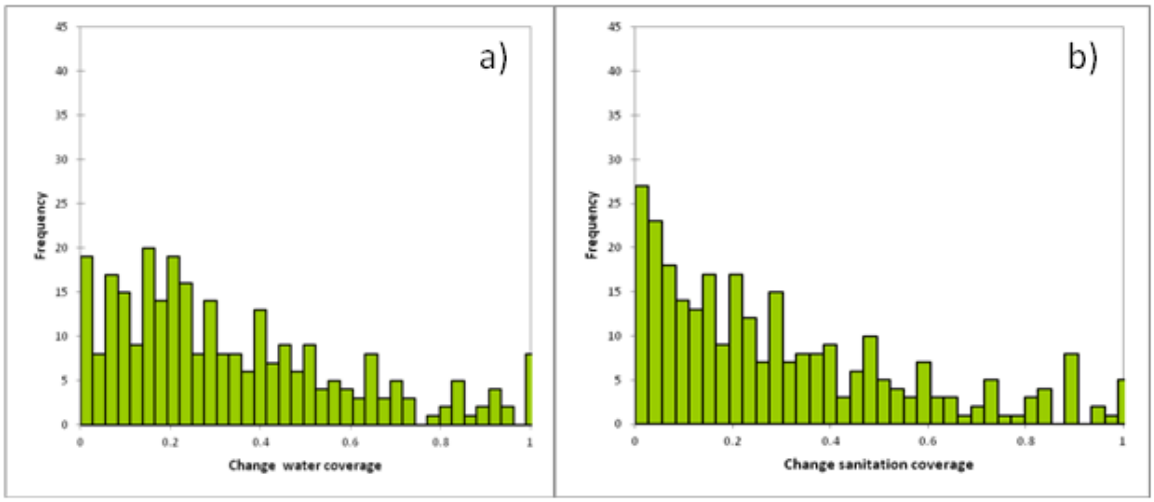


Figure 2.39: a) Expected drinking water coverage improvement by project implementation as declared by applicants. b) Expected sanitation coverage improvement by project implementation as declared by applicants.
The maximum value (1) of x axis corresponds to a total (100%) coverage.

2.2.3.8. Beneficiaries and cost per beneficiary

Beneficiaries

Beneficiary data was available for 361 projects. We will not go much into detail, since quantifying the beneficiaries does not make much sense for projects that were not funded by the WF at the end. These analyses aim more at getting an overview of the available beneficiary data as to be able to estimate the reliability of the figures when it comes to quantifying the beneficiaries of awarded projects (see section 2.2.5.8).

Numbers of all types of beneficiaries were in general very high, particularly for the number of hygiene promotion activities beneficiaries (more than 120 000 people on average, as already anticipated in Table 2.2). The distribution of these variables was quite spread, with the number

of hygiene beneficiaries ranging between 10 and 1.6 M people. The total number of beneficiaries, calculated based on the three beneficiaries types values, as describes in section 1.5.2.7 presented therefore a quite spread profile as well. It showed the highest peaks at around 40 000 beneficiaries (Figure 2.40). Rural and peri-urban projects showed similar profiles (Figure 2.40).

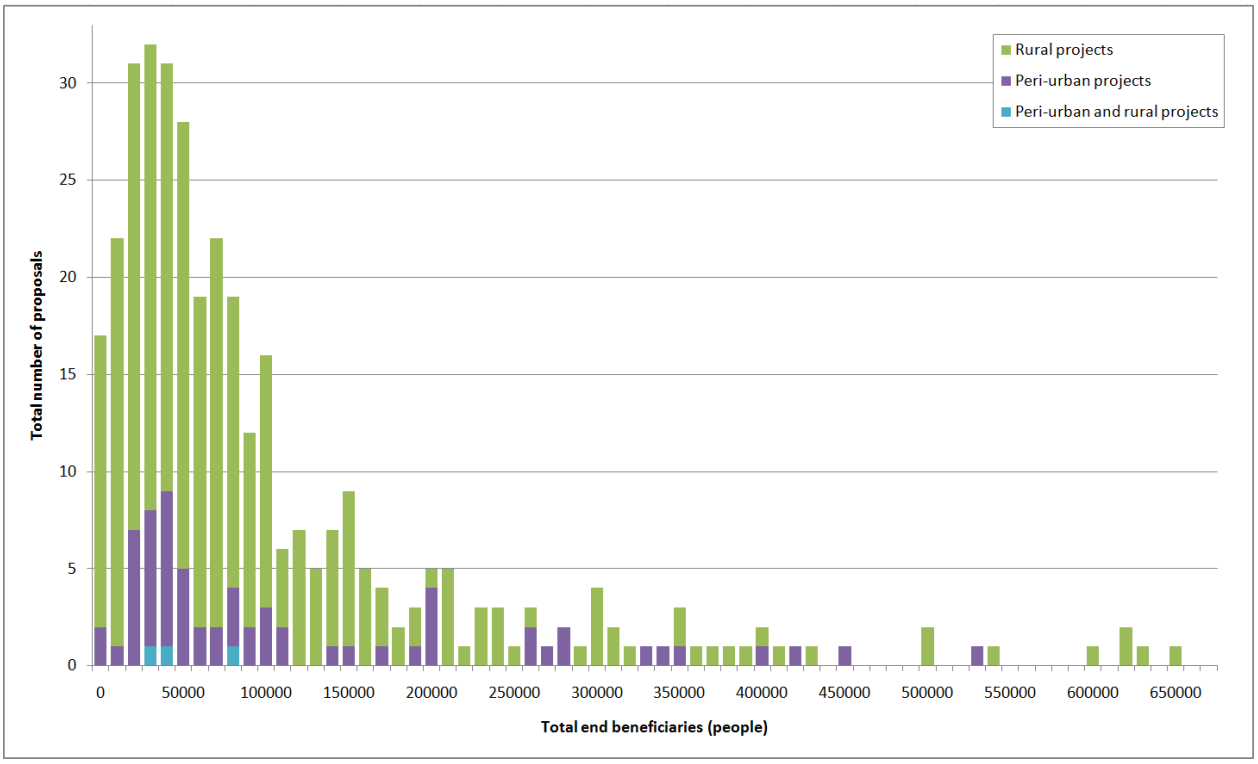


Figure 2.40: Distribution of WF 2010 proposals by number of end beneficiaries. Cut at 700 000 beneficiaries.

Cost per beneficiary

The overall cost per beneficiary ranged from 1 to 3998 €. It showed a high deviation among proposals with an average about 100 € per capita.

As displayed on Figure 2.41, there was no clear relationship between total number of beneficiaries and total project costs, which was already concluded from the preliminary analyses made during the selection procedure. This may be due to the doubtful reliability of some declared data on project beneficiaries.

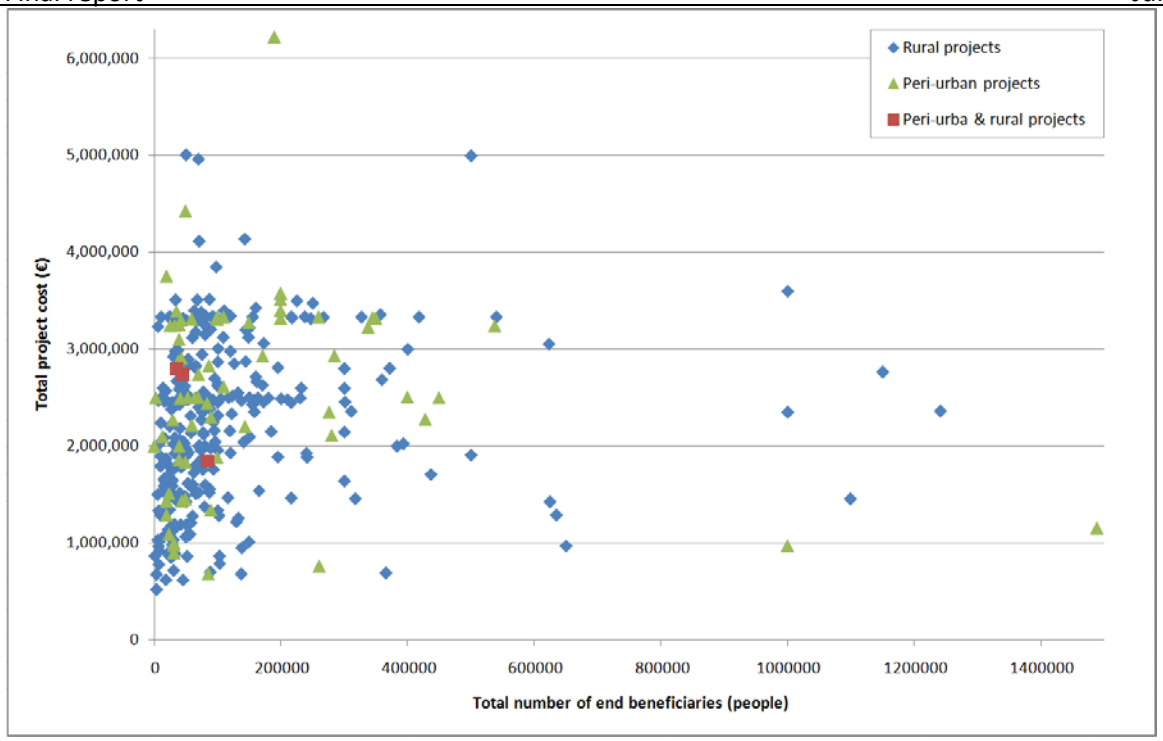


Figure 2.41: Total number of beneficiaries versus project costs by project type.

Looking at the link between the budget for each activity and the number of beneficiaries for the respective activity type (Figure 2.42) we arrive to some conclusions. Although no clear relationship can be made out of these data, the figure confirms that the budget required for similar number of beneficiaries was in general higher for drinking water supply activities. Trend lines show also some consistency of the relationship between number of beneficiaries and project budget for water supply activities. However, there was very slight positive linear correlation for the case of hygiene activities, and even a slightly negative correlation for sanitation activities, which does not seem to follow o reasonable logic.

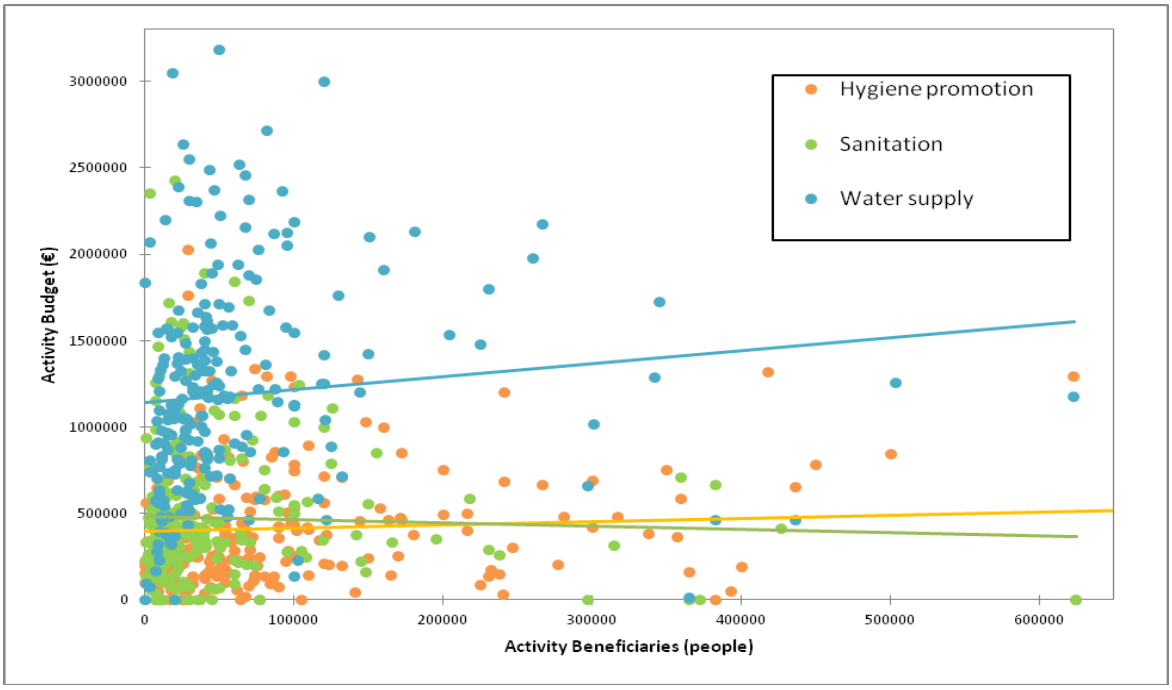


Figure 2.42: Number of beneficiaries versus budget for each WaSH activity. Linear trend lines were added to each of the three data series.

2.2.3.9. Development indicators

The information presented in this section was extracted from the development indicators that the Aquaknow platform can display (GeodataLibrary). Only one of the variables (Average annual population growth) was obtained from the WEIRS database. Here we display first a summary characterization of these indicators (Table 2.7), including minimum, maximum, and mean values, as well as their standard deviation and error of the mean. These statistics were calculated assigning to each proposal the values of the indicators for the country where the project was going to be implemented. As we can see in this table, different indicators might correspond to different years.

After, we plot the mean values for these development indicators. We additionally display geographically the values of these indicators at national level, in the form of maps directly produces with the use of the **map tool of the AquaKnow** online platform.

Group	Variable	Relation with online database	Units	Year	Missing values	Minimum	Maximum	Mean	Standard deviation of sample (n)	Standard error of the mean
Water indicators (national)	Water supply services coverage	*Water supply services coverage 2004*	%	2004	13	22.0	100.0	60.1	16.2	0.7
	Sanitation services coverage	*Sanitation services coverage 2004*	%	2004	12	9.0	96.0	38.5	17.4	0.8
	Household connection level	*Household connection level 2004*	%	2004	19	1.0	82.0	18.0	17.8	0.8
Socio-economy	GDP	*GDP*	Int $ per capita		25	0.6	10.1	1.5	1.4	0.1
	HDI	*HDI*	Dmnl	2005	17	0.3	0.8	0.5	0.1	0.0
	Malaria prevalence	*Malaria prevalence*	Cases/1000	2004	84	0.0	428.1	154.4	111.1	5.2
	Child mortality under 5 years	*Child mortality under 5 y*	Children 1000^{-1}	2005	3	18.0	265.0	137.7	43.9	1.9
	Dryland area	*Dryland proportion percentage*	% of total area	-	31	0.0	100.0	41.7	33.7	1.5
	Gross enrolment at school (1 to 3 cycle)	*Gross enrolment at school (1 to 3 cycle)*	%	2005	33	22.7	85.0	49.0	13.5	0.6
	Female economic activity	*Female economic activity*	%	2005	29	29.8	91.8	66.2	13.1	0.6
	Proportion of urban population living in slums	*Proportion of urban population living in slums*	%	2001	14	1.0	99.4	74.4	23.1	1.0
	Total water resources	*Total water resources*	m3/year/person	2004	17	379.7	326116.4	23471.9	63067.8	2763.1
	Water poverty index	*Water poverty 2002*	Dmnl	2002	33	35.0	76.0	45.4	6.5	0.3
	Average annual population growth	*Average annual population growth*	%	2010	209	0.0	250	4.4	15.8	0.9
	Rural population growth-national	*Rural population growth*	%	2000-2005	12	-1.7	3.9	1.7	1.1	0.0
	Urban population growth-national	*Urban population growth*	%	2000-2005	12	-0.1	9.2	3.8	1.4	0.1
Worldwide Governance Indicators	Voice and Accountability	*Voice and Accountability*	Dmnl	2004	32	-1.9	0.8	-0.5	0.6	0.0
	Political stability and absence of violence	*Political stability*	Dmnl	2004	32	-2.6	1.3	-0.6	0.7	0.0
	Government effectiveness	*Government effectiveness*	Dmnl	2004	32	-2.2	0.8	-0.7	0.4	0.0
	Regulatory quality	*Regulatory quality*	Dmnl	2004	32	-2.3	0.6	-0.6	0.5	0.0
	Rule of law	*Rule of law*	Dmnl	2004	32	-2.3	0.7	-0.8	0.5	0.0
Development aid	ODA	*Official development assistance 2004*	USD per capita	2004	11	4.2	789.0	49.7	48.5	2.1
	ODA water and sanitation	*Total ODA dedicated to Water and Sanitation sector*	USD per capita	2004	14	0.0	16.7	2.1	2.3	0.1

Table 2.7: Development indicators characterization summary.

The share of population being covered by water supply services in the countries targeted by the proposals were low on average (60%). Values for sanitation infrastructure coverage and households connection were even much lower (means of 38.5% and 18%, respectively) (Figure 2.43).

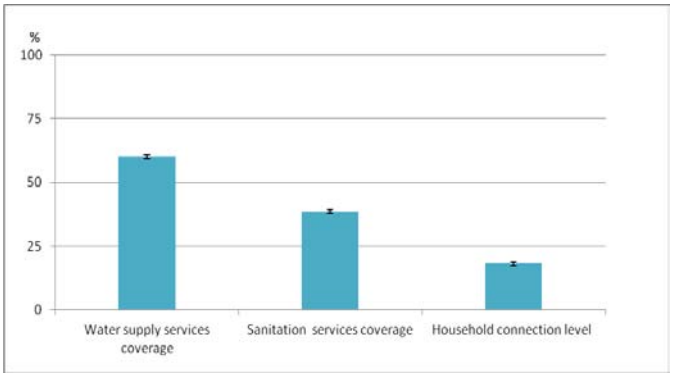


Figure 2.43: Indicators on water services coverage.
Average values and standard error of the mean are displayed.

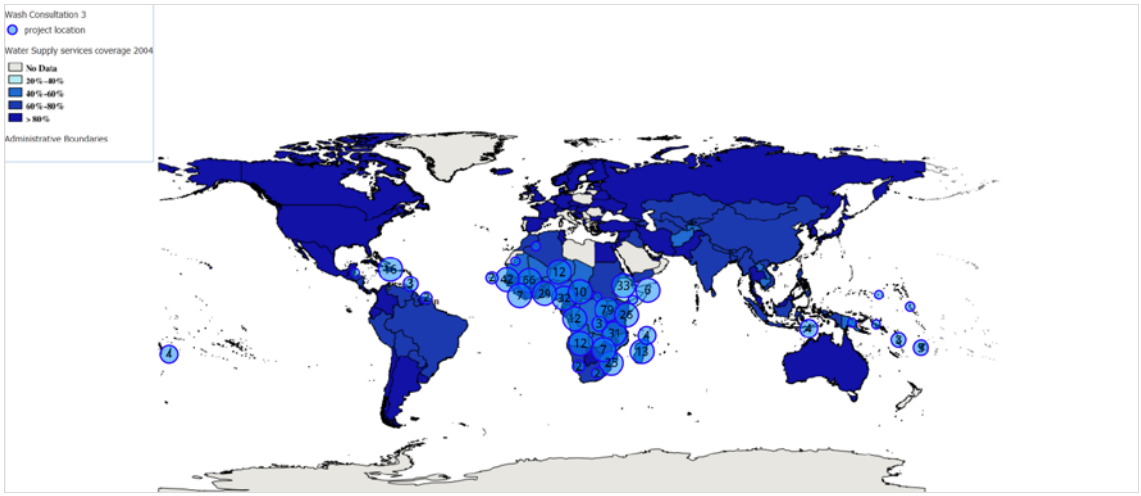


Figure 2.44: Location of projects proposals with the indicator Water supply services coverage 2004 in the background.

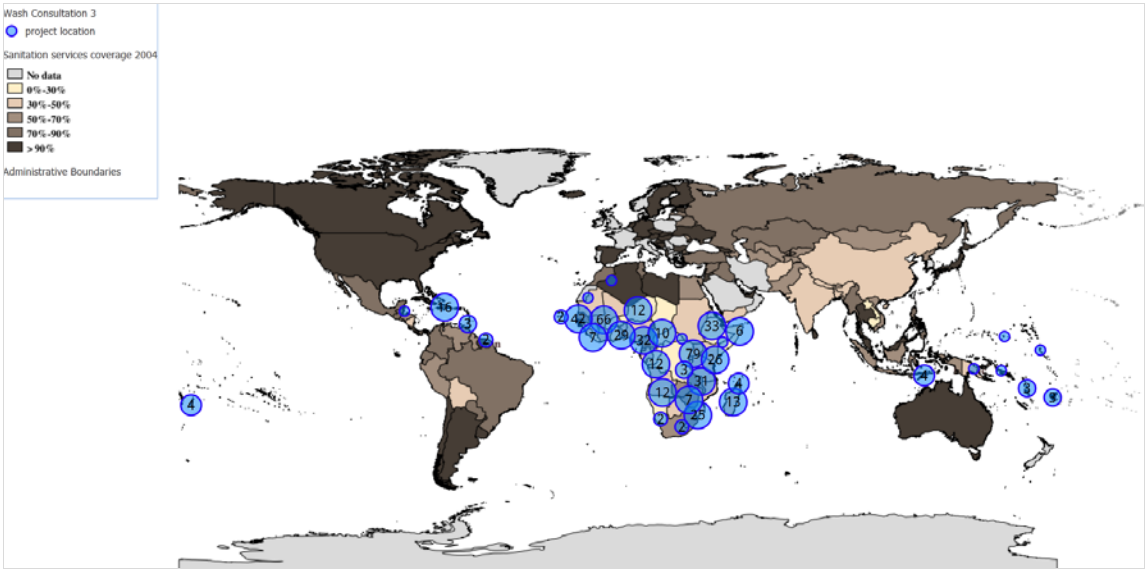


Figure 2.45: Location of projects proposals with the indicator Sanitation services coverage 2004 in the background.

Average values of HDI and GDP were also very low in projects regions (Figure 2.46), since project countries were among the poorest worldwide, as can be seen in figures 2.47 and 2.48.

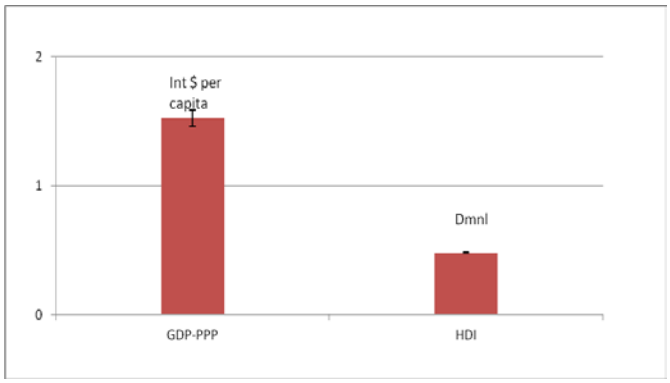


Figure 2.46: GDP-PPP and HDI indicators.
Average values and standard error of the mean are displayed.

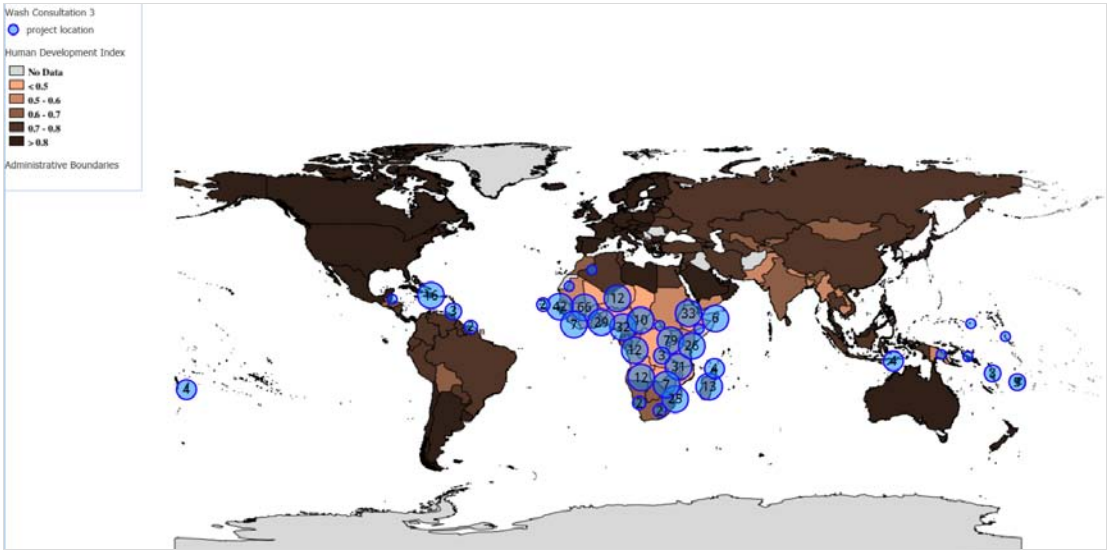


Figure 2.47: Location of projects proposals with the indicator Human development index in the background.

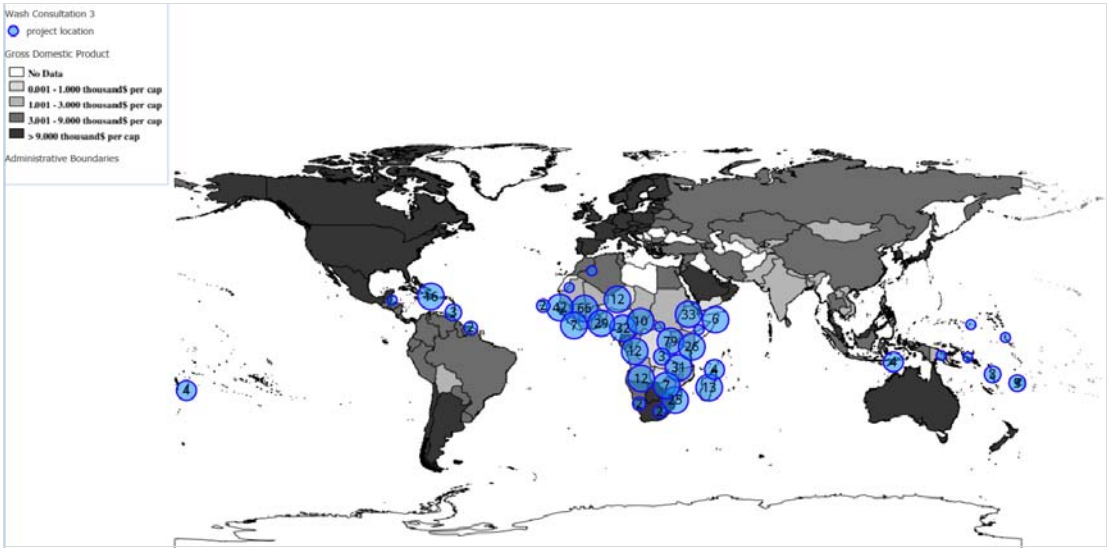


Figure 2.48: Location of projects proposals with the indicator Gross Domestic Product in the background.

Health indicators that might be associated with the quality of water supply, sanitation and hygiene practices showed very grave values as well. Thus, malaria prevalence was particularly high (more than 15% of the population), and so was child mortality under 5 years (more than 10% of children) (Figure 2.49).

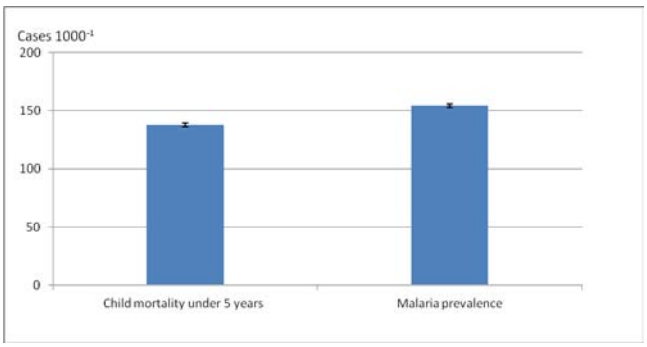


Figure 2.49: Health indicators.
Average values and standard error of the mean are displayed.

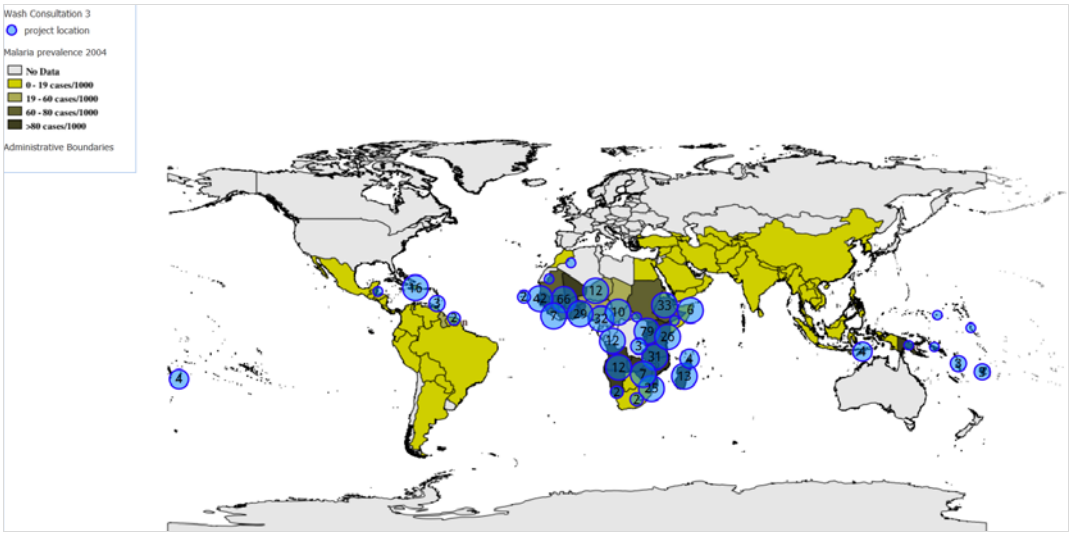


Figure 2.50: Location of projects proposals with the indicator Malaria prevalence in the background.

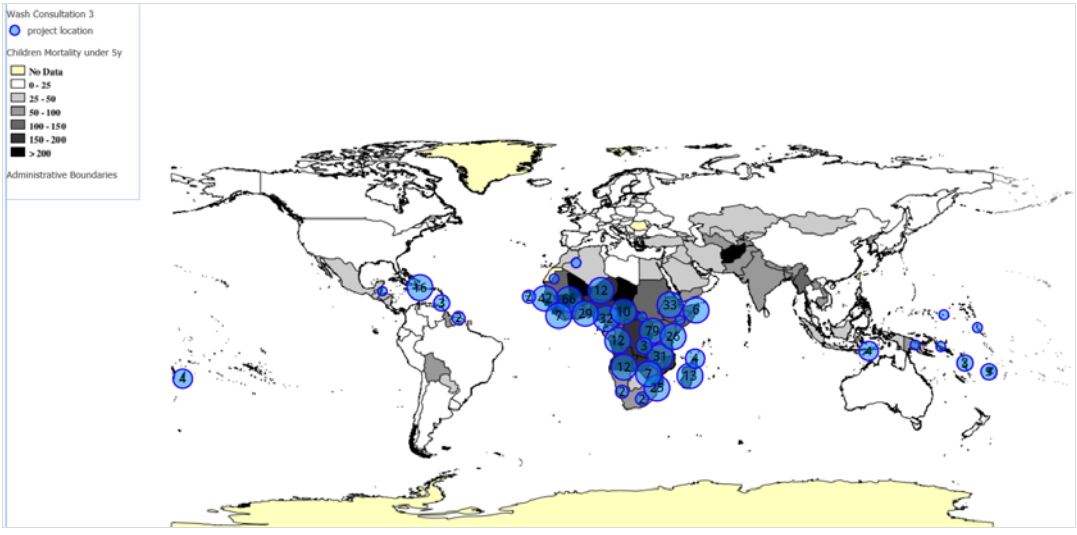


Figure 2.51: Location of proposals with the indicator Child mortality under 5 years in the background.

Other development indicators mirrored in general terms a very needy situation. The proportion of country area occupied by dry land and of urban population living in slums was relatively high (Figure 2.52 and, respectively, figures 2.53 and 2.54). Enrolment of children at school (up to 3rd cycle) was also among the lowest values worldwide (less than 50%, figures 2.52 and 2.55). Participation of women in the economic activities was quite high (around 66%, figure 2.52 and 2.56), which is normally associated to low income in the context of developing countries. The water poverty index did not show very relevant differences among countries, but it is illustrative to show the low level in the targeted regions as compared with developed countries (Figures 2.52 and 2.57)

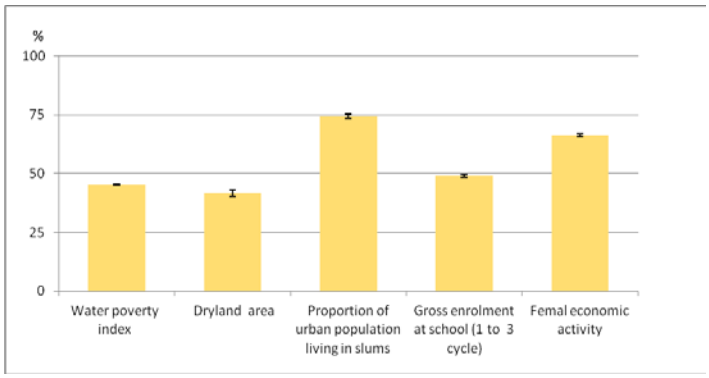


Figure 2.52: Socio-economic development indicators. Average values and standard error of the mean are displayed.

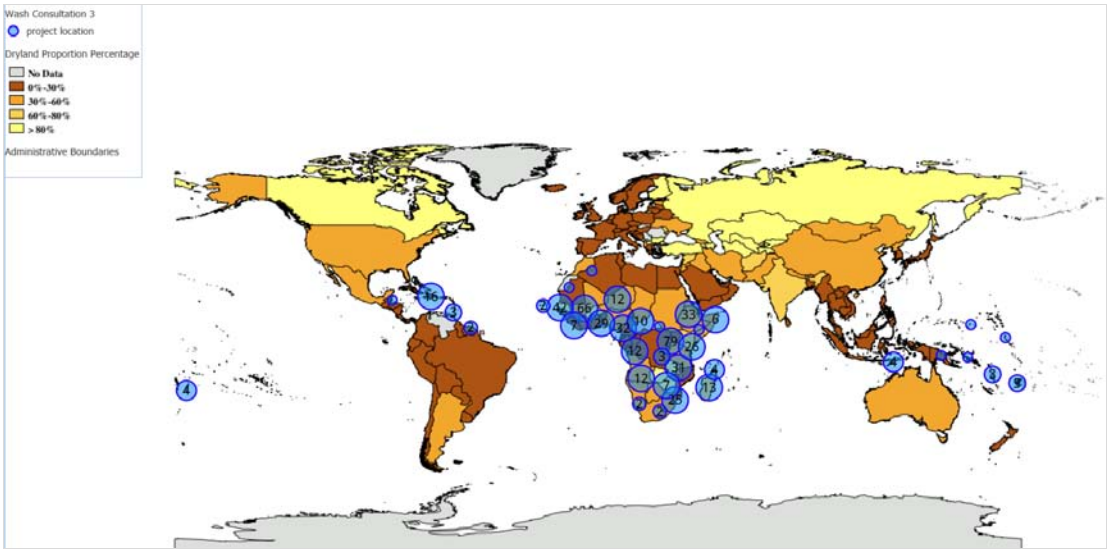


Figure 2.53: Location of projects proposals with the indicator Dryland proportion percentage as background.

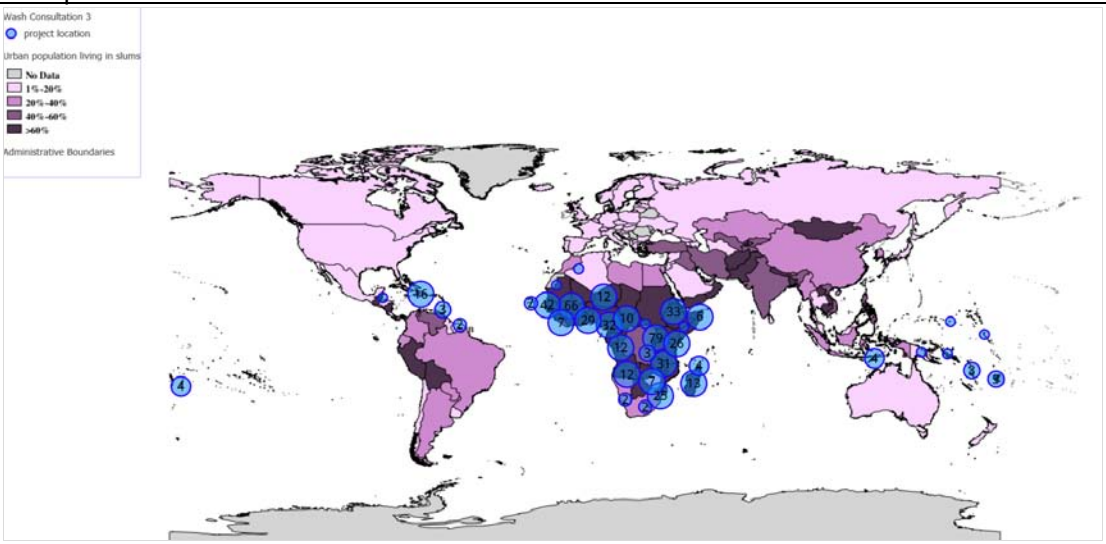


Figure 2.54: Location of proposals with the indicator Urban population living in slums as background.

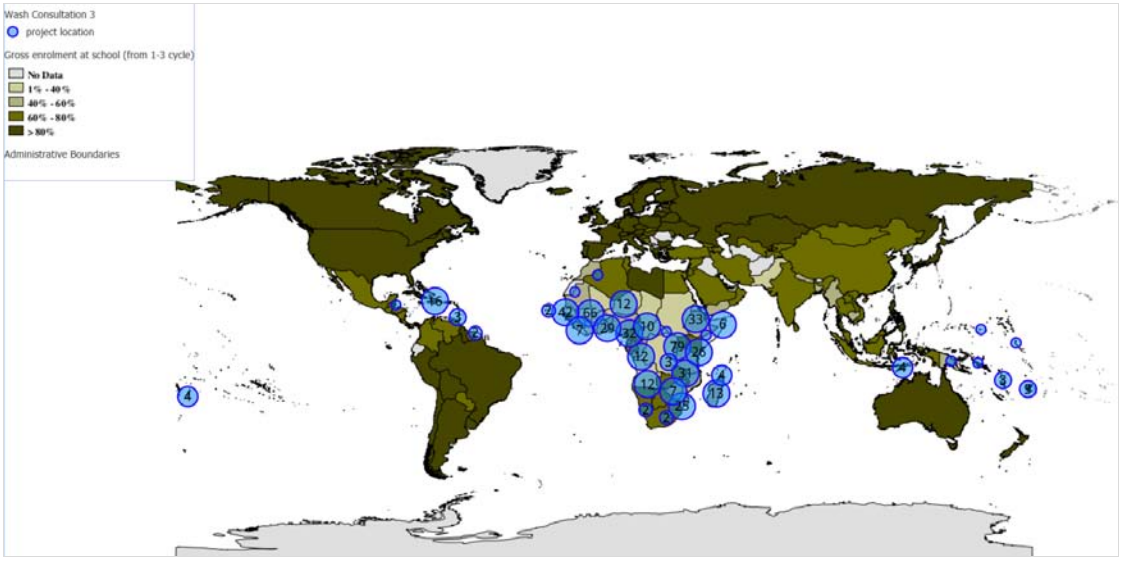


Figure 2.55: Location of projects proposals with the indicator Gross enrolment at school as background.

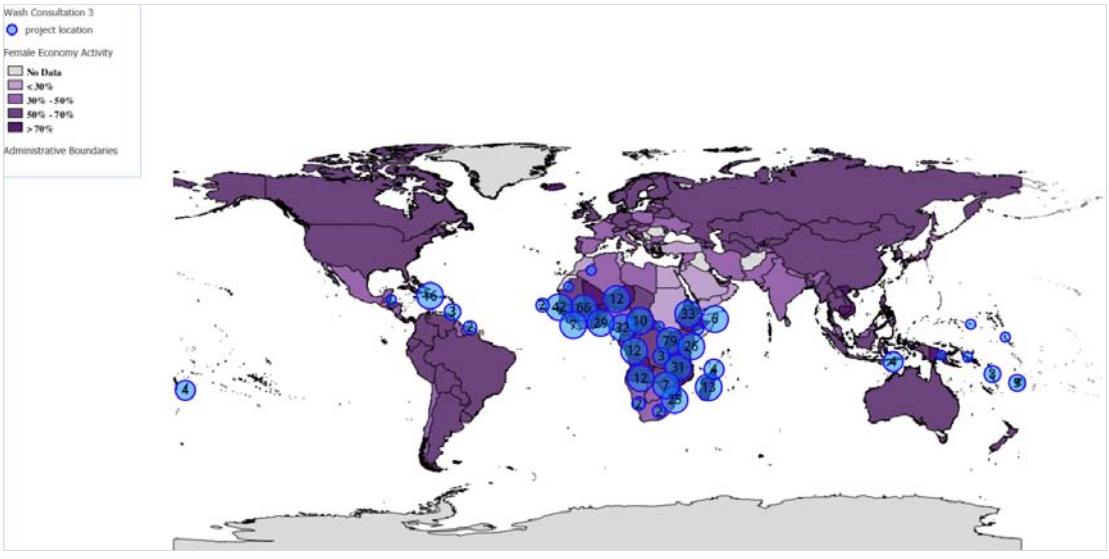


Figure 2.56: Location of projects proposals with the indicator Female economic activity as background.

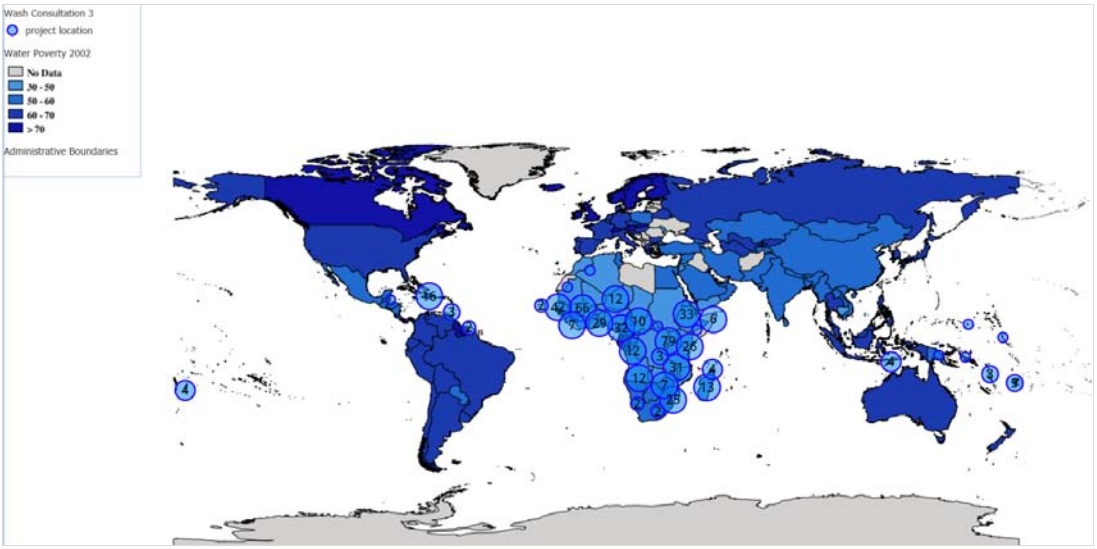


Figure 2.57: Location of projects proposals with the indicator Water Poverty Index as background.

The indicator *Total water resources* is presented only in the form of a map (Figure 2.58), since the most relevant is the comparison among countries. As can be seen in this figure, a great share of proposals targeted countries with relatively lower water resources per capita. However, it does not seem to be the main handicap in the ACP region, since countries with abundant resources might not have the infrastructure to improve their development state by using these resources.

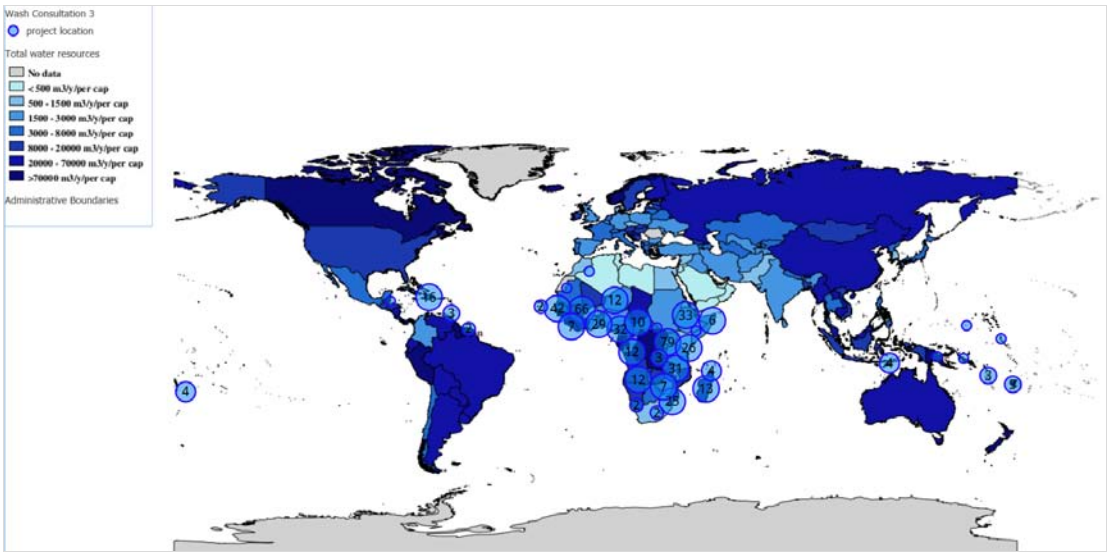


Figure 2.58: Location of projects proposals with the indicator Total water resources as background.

Projects were to be implemented in countries where population growth was positive and high on average (Figure 2.59). Population growth rates were in general higher for urban than for rural areas (Figure 2.59 and, respectively, figures 2.60 and 2.61). Moreover, considering that here percentage values are displayed, the higher population growth rates in urban areas might correspond with even much higher increases in terms of net population. Applicants declared on average that project areas had population growth rates higher than the national values both for

rural and urban regions (Figure 2.59). This could be a sign that the areas selected for the projects implementation were not representative of the mean national conditions but of areas with more challenging situations, where population growth rate was even higher than the country average. However, no clear comparison can be done between national and regional values, since their classifications do not match. Additionally, both regional and national indicators make no distinction between peri-urban and central areas of urban environments, which was one the focus of this call. Regional population growth does neither specify if referred to rural or urban areas.

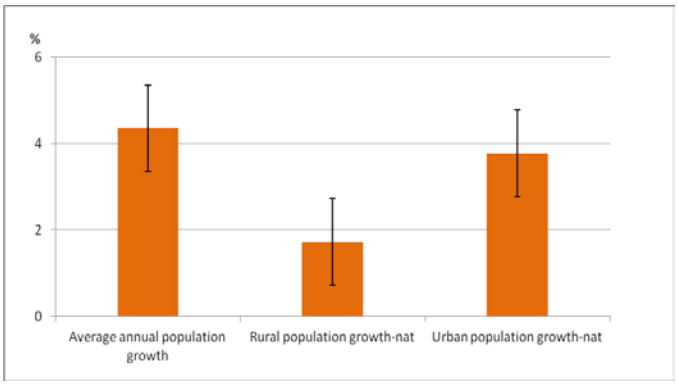


Figure 2.59: Indicators on population growth.
Average values and standard error of the mean are displayed. The variable to the left corresponds to values on projects site while the other two are given at country level.

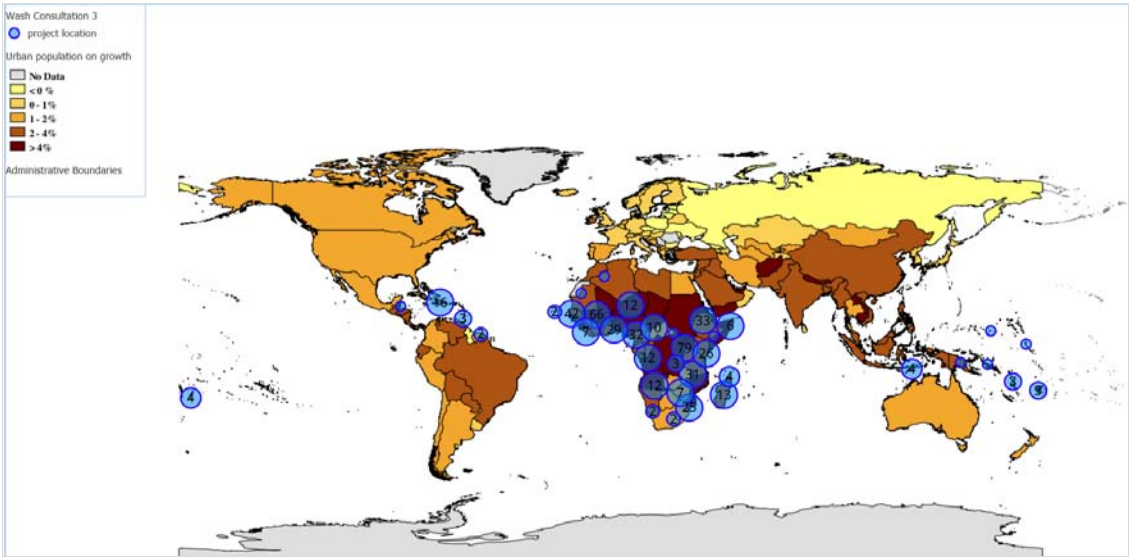


Figure 2.60: Location of projects proposals with the indicator Urban population growth as background.

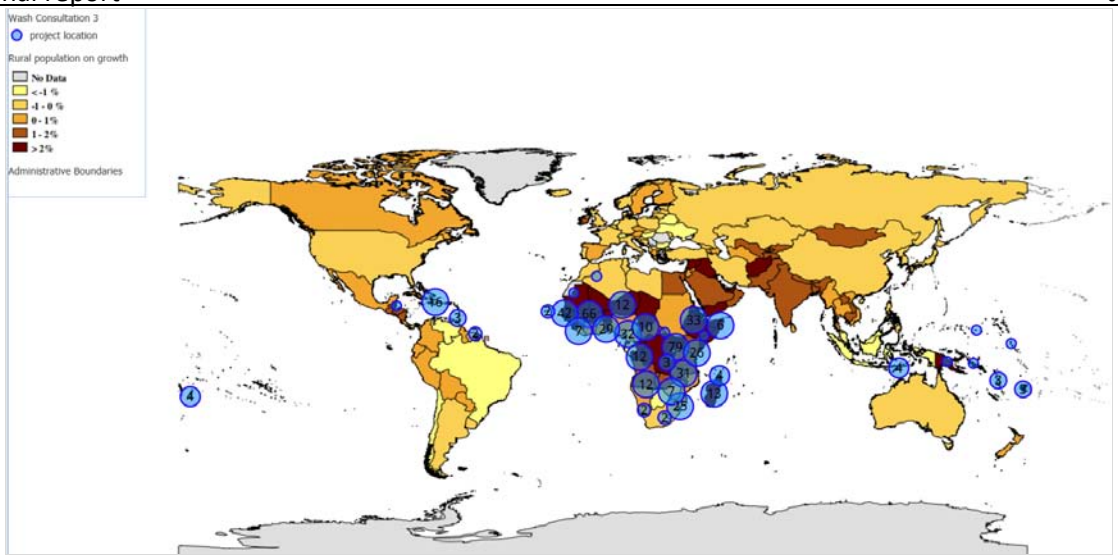


Figure 2.61: Location of projects proposals with the indicator Rural population growth as background.

Values of governance indicators were low, particularly for two fields (Figure 2.62): *Rule of law* (also Figure 2.63) and *Government effectiveness*, which determine, respectively, confidence of different actors in the rules of the society and the success of the government in implementing policies.

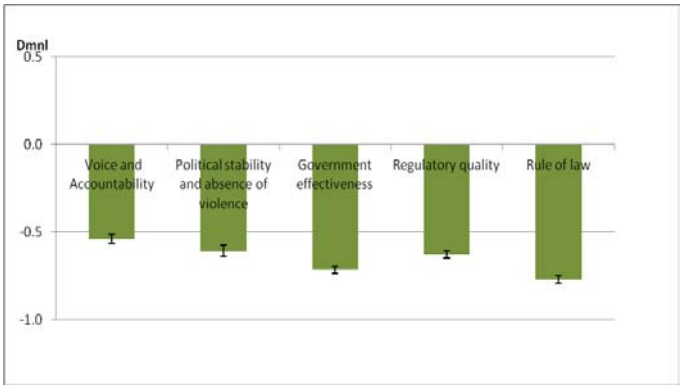


Figure 2.62: Governance indicators.
Average values and standard error of the mean are displayed. Dmnl responds to "dimensionless".

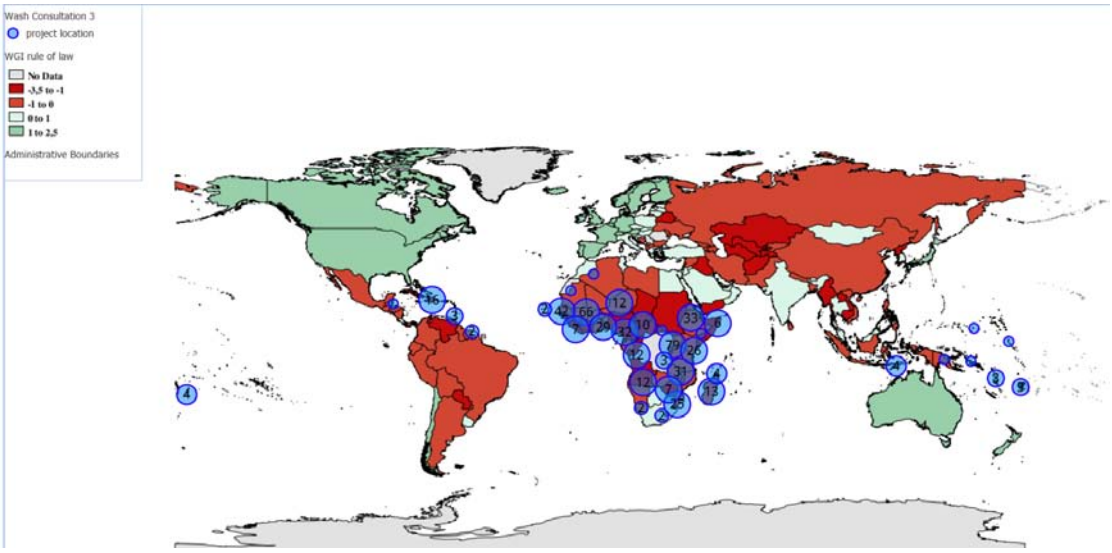


Figure 2.63: Location of projects proposals with the Indicator WGI Rule of law as background.

Finally, all countries where the projects were going to be implemented receipt Official Development Aid (ODA). This included a sum targeting water supply and sanitation, which was much lower than the total ODA receipt (Figure 2.64). The average economic aid receipt in each country was in general much lower than the average cost per beneficiary declared by projects applicants (section 2.2.3.8), which gives an idea of the comparison between the receipt aid per capita and the needs declared by the applicants.

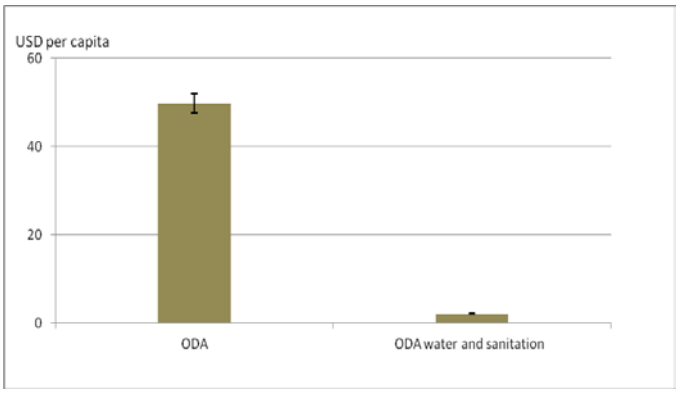


Figure 2.64: Official Development Assitance (ODA) indicators. Average values and standard error of the mean are displayed.

We will give more information on these indicators in the section comparing awarded and rejected proposals (section 2.2.5) and cross-calls analysis (section 2.3).

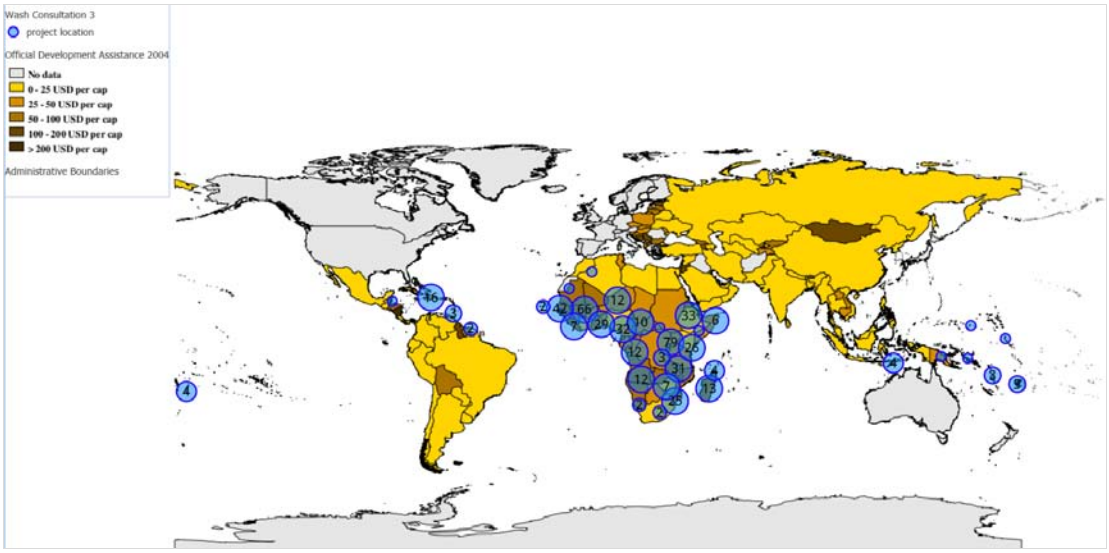


Figure 2.65: Location of projects proposals with Official Development Assistance (ODA) as background.

2.2.4. Proposals WF2010 analysis by region

In order to assess if there was some significant differences among the different ACP regions, here we show the values (or categories) of a selection of the above described data, for each one of the ACP regions (variable *Project region* of the online database).

The analysis of data in this section is much simpler than in the previous one, since we wanted to stress the main differences among project regions and to make a comparison with a format similar to section 2.2.5, where we will compare awarded and rejected proposals. Thus, particularly the analysis of actors characteristics is much simpler than in the previous section. However, some of the particularities of actors among different regions have been already stressed in section 2.2.3.2.

For categorical variables, we display the relative frequencies of each category for all proposals having the same *Project region*, i.e. the frequencies of each category for each variable, relative to the total number of proposals for each particular region. For quantitative variables, we display the mean values for all proposals with the same *Project region,* and the standard error of the means.

For the interpretation of these results, it is important to bear in mind that the total number of proposals by region strongly differed. Therefore, relative frequencies (for categorical variables) and mean values (for quantitative variables) might be less representative for the case of regions with small proposals number, e.g. Pacific or Caribbean, than for regions where more projects were to be implemented. In order to facilitate the reader in the task of assessing how representative are the results, we display the standard error of the mean for the quantitative variables, and include the number of proposals by region, for the categorical variables plots.

Most proposals were submitted for Western Africa, followed by Eastern Africa, while Pacific and Caribbean regions counted with a much lower number of proposals (Figure 2.66). Proposals to be implemented in the Caribbean and Pacific showed clearly the biggest differences with the rest of regions. However, this fact might be due to the above mentioned fact that a small number of proposals were presented for these two regions. Proposals for Western Africa also showed some particularities as we show in the following.

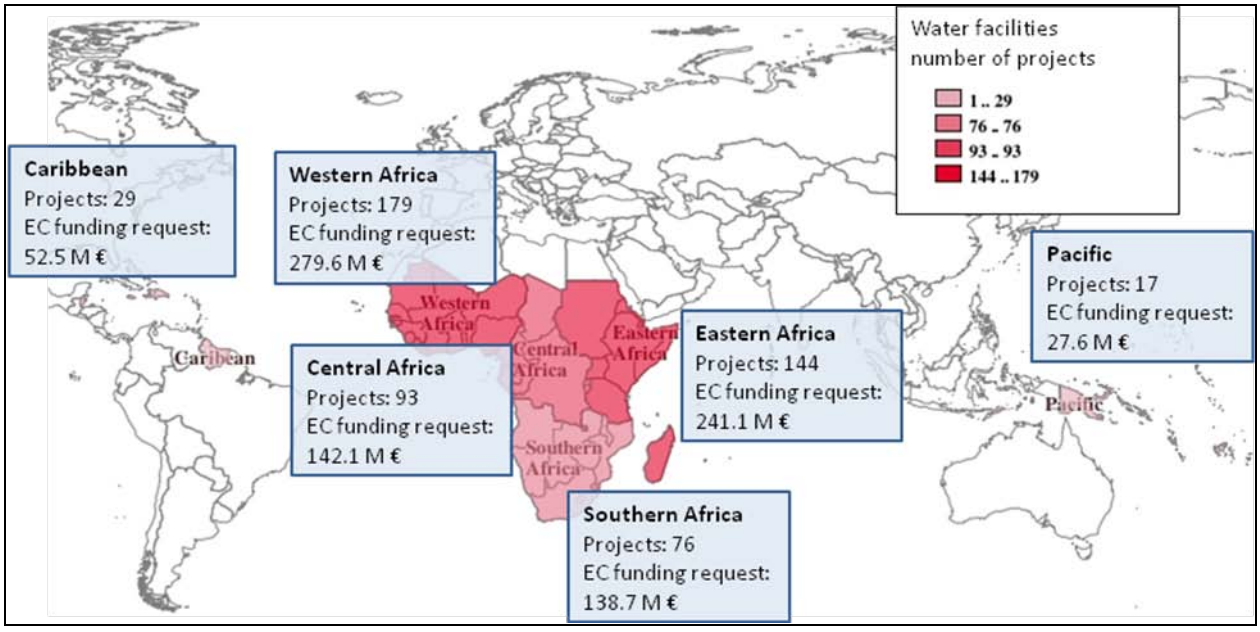


Figure 2.66: Overview of proposals number and EC funding request for all ACP regions.

2.2.4.1. Actors characteristics

Regarding the *Legal status* of the applicant (Figure 2.67a), no university/research institution presented proposals for the Pacific and Eastern Africa regions, and no private interest institution submitted proposals for the Pacific. For all regions, NGOs presented the higher frequencies of proposals, except for the case of the Pacific region, in which case high level management institutions were equally important to NGOs.

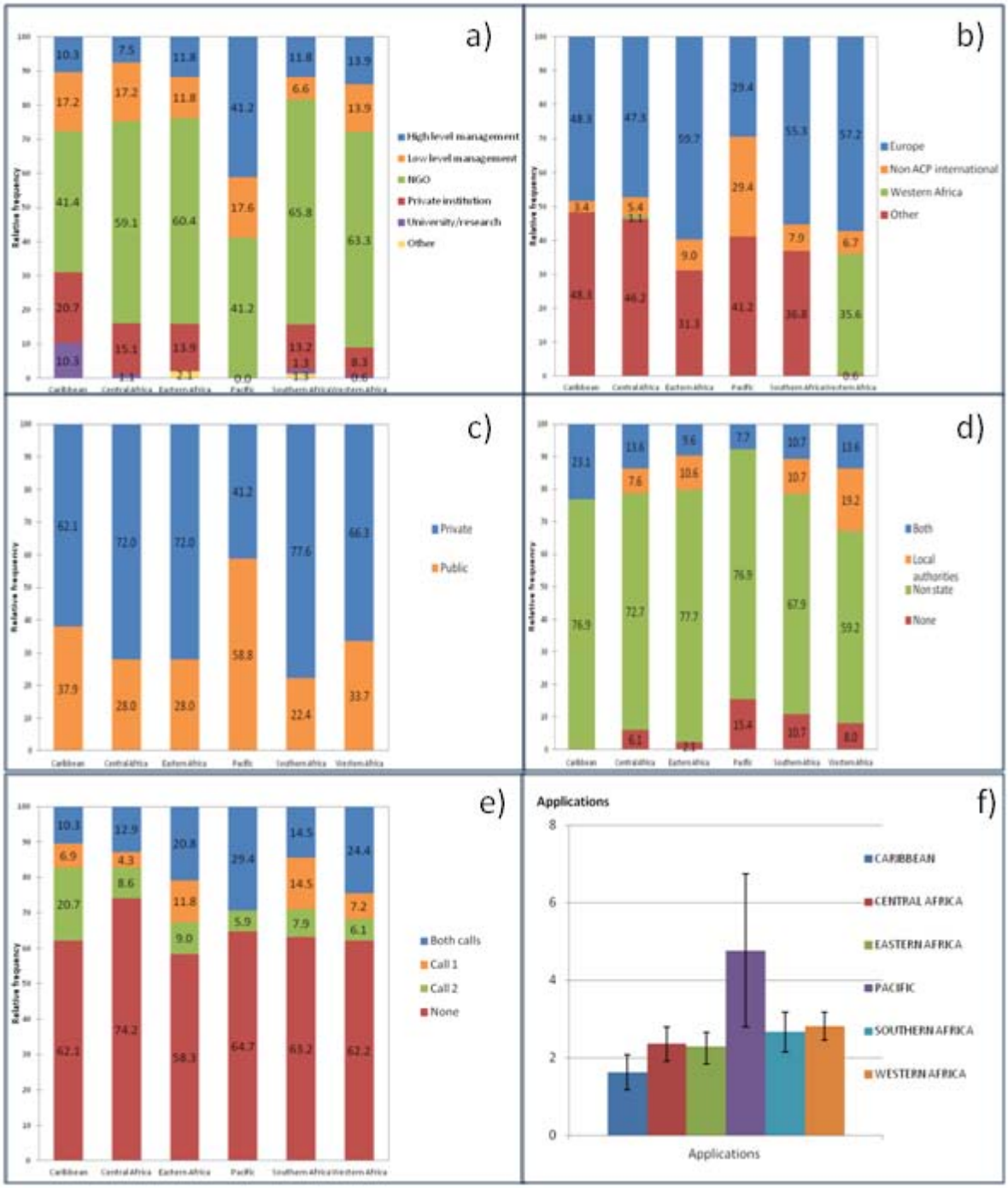


Figure 2.67: Actor characteristics by ACP region.
Relative frequencies are displayed for categorical variables (figures 2.67a-2.67e) while average values and standard error of the mean are displayed for quantitative variables (Figure 2.67f). Total number of proposals for each ACP region is displayed under the x axis.

Applicants from Europe were clearly dominant in Eastern, Southern and Western Africa regions (Figure 2.67b), while for the other regions origin of applicants was more variable. Additionally, and differently for the rest of the regions, many proposals for Western Africa were submitted by applicants with an origin in the same region.

More applications from public actors were found in the Pacific, Caribbean and Western Africa (Figure 2.67c) than for the other regions. More local authorities were present as local partners in Western Africa than for the other regions, and no local authorities at all were presented for the Caribbean and Pacific regions (Figure 2.67d).

As for *Previous award*, Pacific region presented the biggest share of applicants already awarded in both previous calls, while the biggest number of applicants never awarded was found for Central Africa (Figure 2.67e), the African region with less share of European applicants (Figure 2.67b).

For projects in the Pacific region, applicants applied on average for a higher number of projects simultaneously than in the other regions, as opposite to the Caribbean (Figure 2.67f).

2.2.4.2. Project duration

We found higher share of long duration projects for the Eastern Africa and Pacific regions than for the rest (Figure 2.68). In addition, short projects were inexistent for Pacific and Central Africa projects.

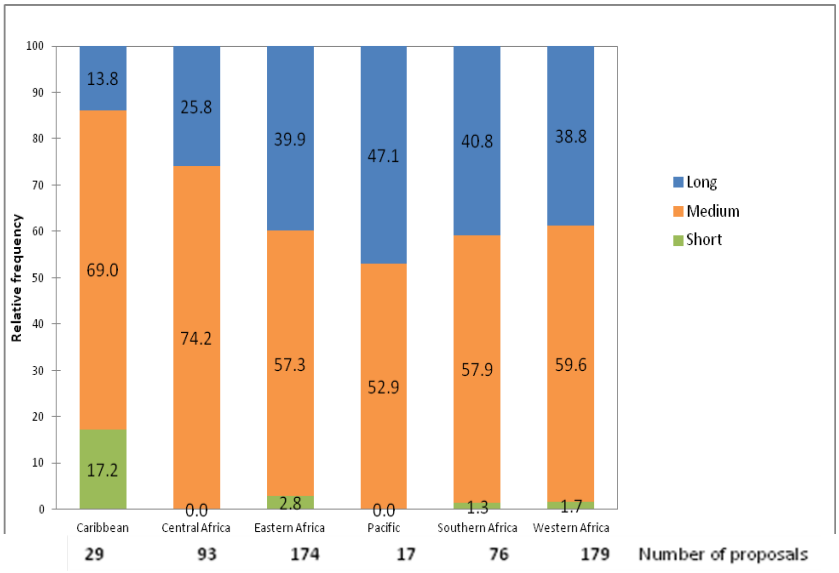


Figure 2.68: Project duration by ACP region (relative frequencies).
Total number of proposals for each ACP region is displayed under the x axis.

2.2.4.3. Activities and technologies

As for the general types of activities proposed in the projects, differences among regions were not very relevant. Basic supply activities were slightly less present in Central Africa projects (Figures 2.69a) and activities on sanitation for the Caribbean (Figure 2.69b). On the other hand, fewer projects included activities on health education for Caribbean and Central Africa regions, while more proposals included activities on health education in Eastern Africa and Pacific

(Figure 2.69c). For the rest of activities, no relevant differences were found among regions and therefore they are not further displayed here.

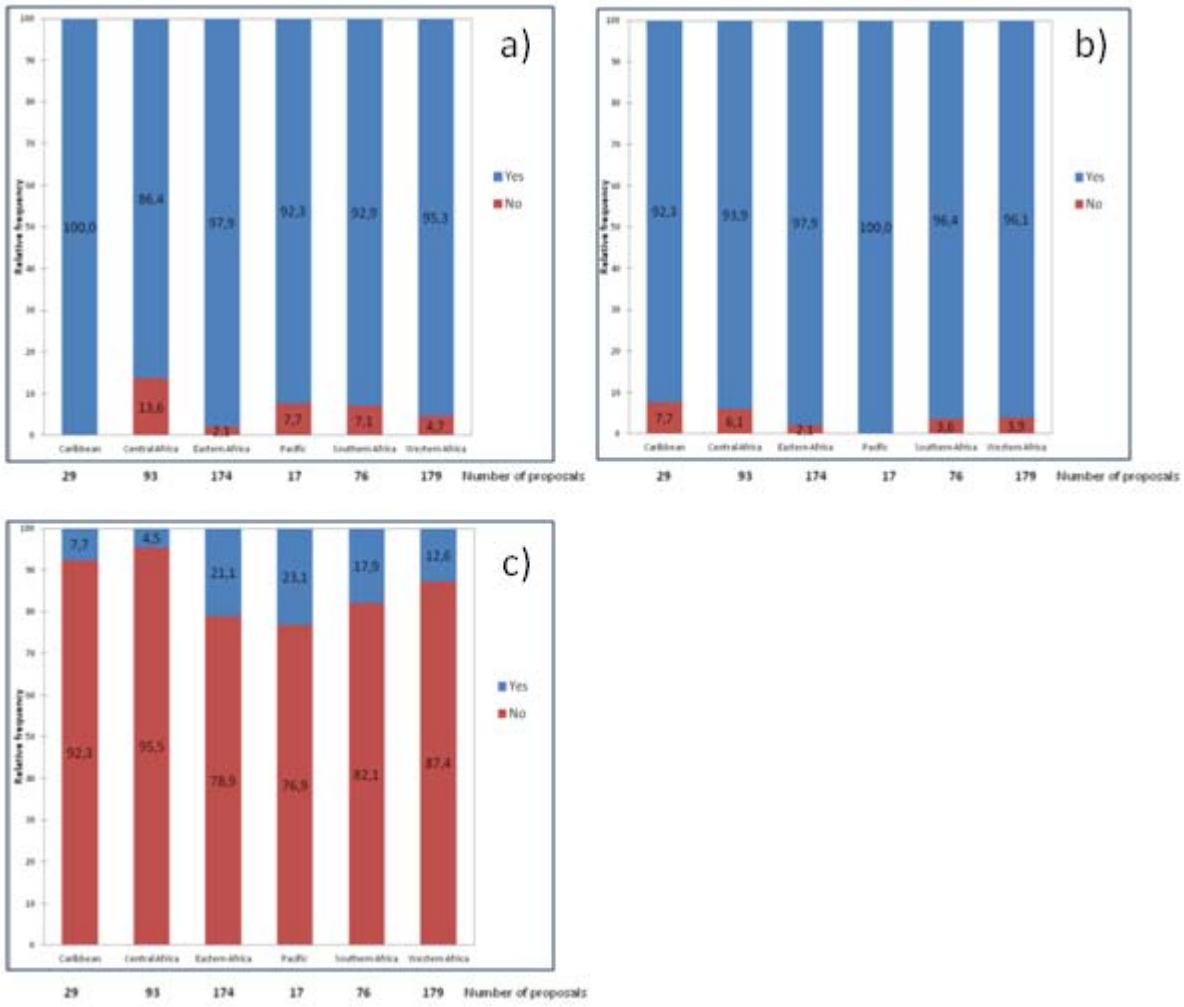


Figure 2.69: Presence of different activities in the proposals by ACP (relative frequencies). Total number of proposals for each ACP region is displayed under the x axis.

2.2.4.4. Project financing and budget closure

Total values of EC funding request among regions were quite diverse, as displayed in Figure 2.69 above.

Projects in the Caribbean and in Southern Africa requested on average more funding than any other region (Figure 2.72a). Parallel, Caribbean projects would make the lowest average financial contribution (Figure 2.72a). Projects in the Caribbean and Southern Africa, the regions with the highest funding requests, would allocate a higher budget share to sanitation and hygiene promotion (Figure 2.72b) than projects for the other regions. This may be due to the fact that higher funding allows them to develop more "secondary" activities apart from the contribution to basic drinking water supply.

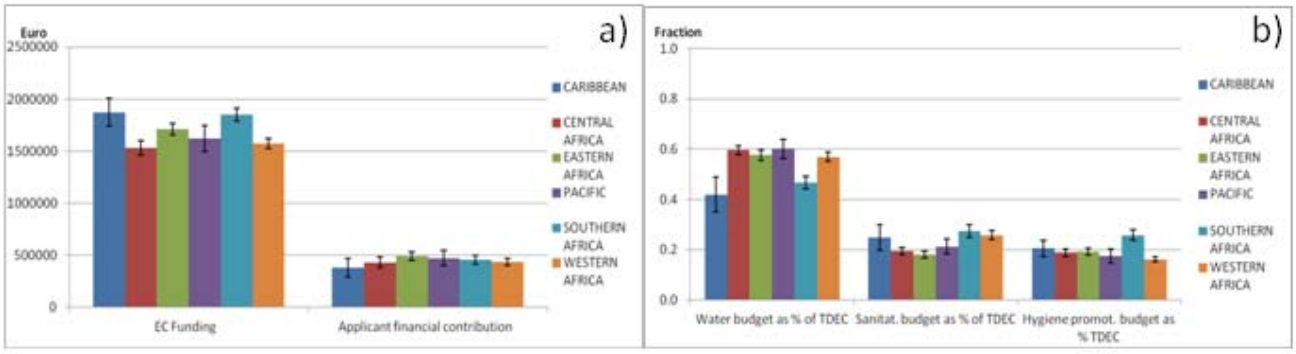


Figure 2.70: Project financing and budget allocation by ACP region.
Average values and standard error of the mean are displayed.

2.2.4.5. Project water services expected improvements

Surprisingly, much lower values of drinking water coverage were found for the Caribbean proposals on average (Figure 2.71), a region that at country level has the highest values for water services among all regions (see section 2.2.4.7 below). On average, drinking water coverage in project areas was always lower than values at country level (see section 2.2.4.7. below). This may be due to the selection of areas that were particularly poor within each region for the projects implementation. The same happens for the case of sanitation. The biggest improvement of water services were declared by the Caribbean, Pacific and Western Africa projects (Figure 2.71).

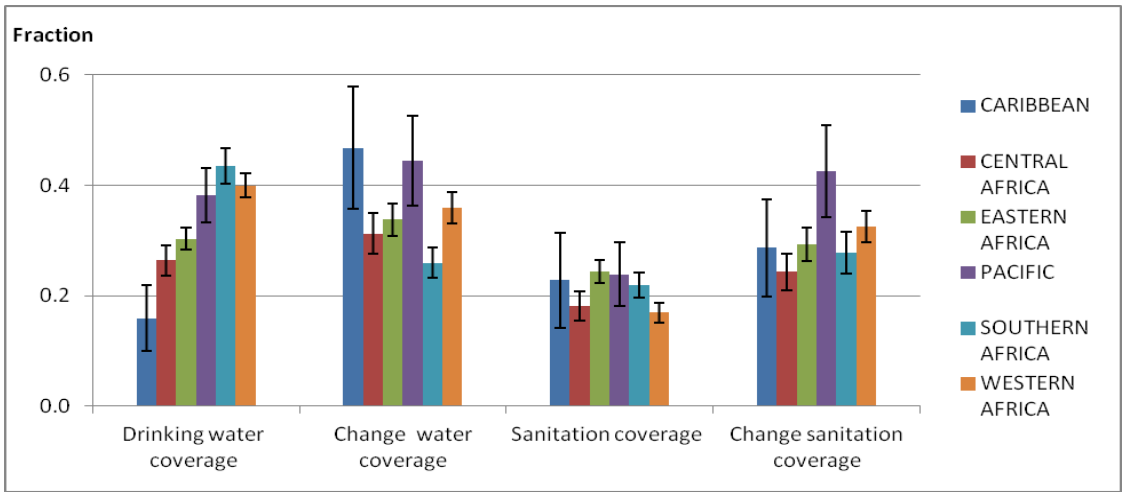


Figure 2.71: Water supply, sanitation coverage and expected improvement in these two variables through projects implementation by ACP region.
Average values and standard error of the mean are displayed.

2.2.4.6. Beneficiaries and cost per beneficiary

Western Africa was the region with the highest number of total beneficiaries, as declared by applicants, followed by Central and Eastern Africa (Figure 2.72). This variable was mostly determined by the number of beneficiaries of hygiene activities, which was the highest among the three types of beneficiaries (see Figure 2.72).

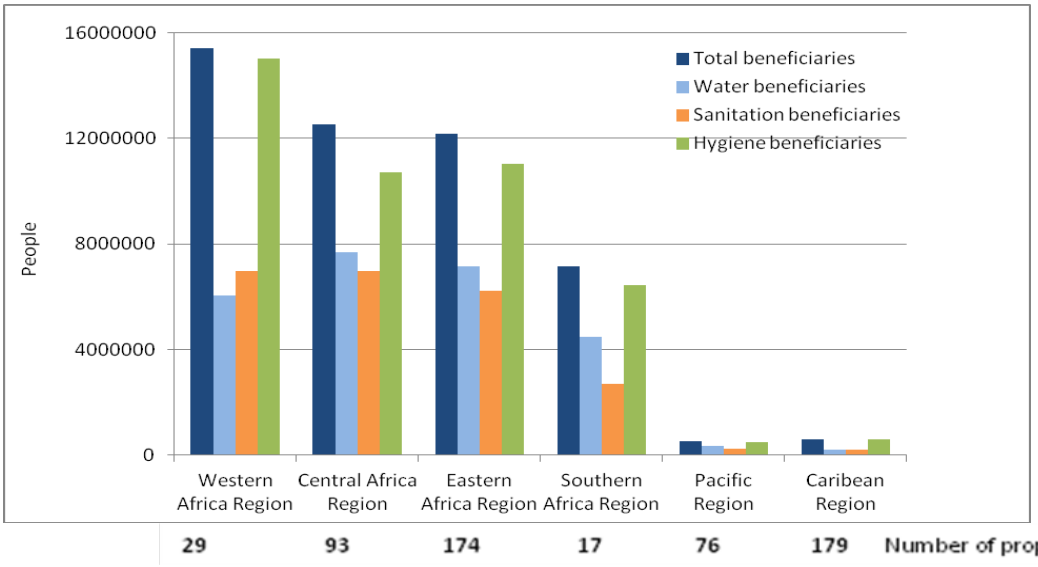


Figure 2.72: Total number of end, water supply, sanitation and hygiene beneficiaries from proposals, as declared by the applicants by ACP region.
Total number of proposals for each ACP region is displayed under the x axis.

The number of beneficiaries considering the number of proposals submitted for each region, lead as to the next figure, Figure 2.73, which displays the average number of beneficiaries per project for each ACP region. The Caribbean and Pacific regions declared much lower beneficiaries numbers on average, while proposals from Central Africa declared the highest. In general terms, beneficiaries of hygiene promotion activities were more than for water supply and sanitation, for all regions.

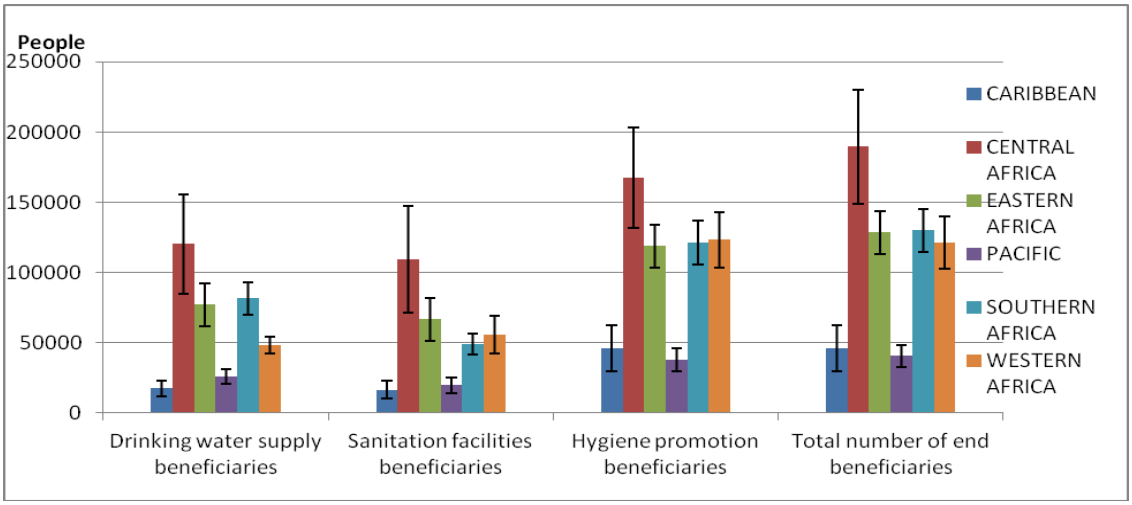


Figure 2.73: Number of total end, drinking water, sanitation and hygiene beneficiaries per proposal by ACP region.
Average values and standard error of the mean are displayed.

The average cost per beneficiary showed great differences between the Caribbean and the other regions, which declared much lower cost per beneficiary (Figure 2.74).

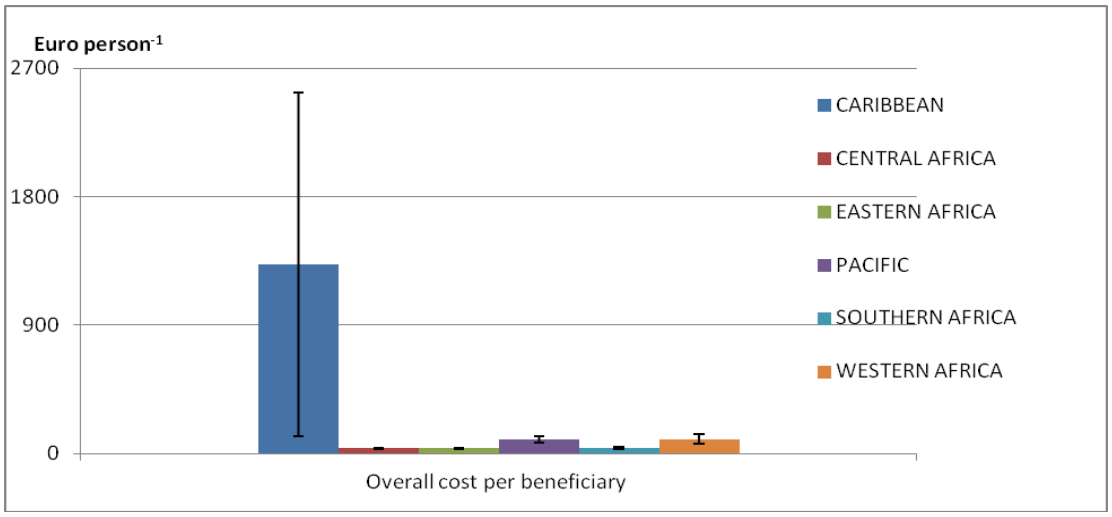


Figure 2.74: Cost per beneficiary by ACP region.
Average values and standard error of the mean are displayed.

2.2.4.7. Development indicators

Clear differences arose from the information regarding the development indicators of the ACP regions where the projects were to be implemented. On average, Pacific and Caribbean countries had better water services (Figure 2.75), socio-economic state (figures 2.76, 2.77 and 2.78), and governance (Figure 2.81) than the other regions.

As above mentioned, Pacific and Caribbean regions had a much better situation regarding water services than the other regions, particularly different for connection of households (Figure 2.75).

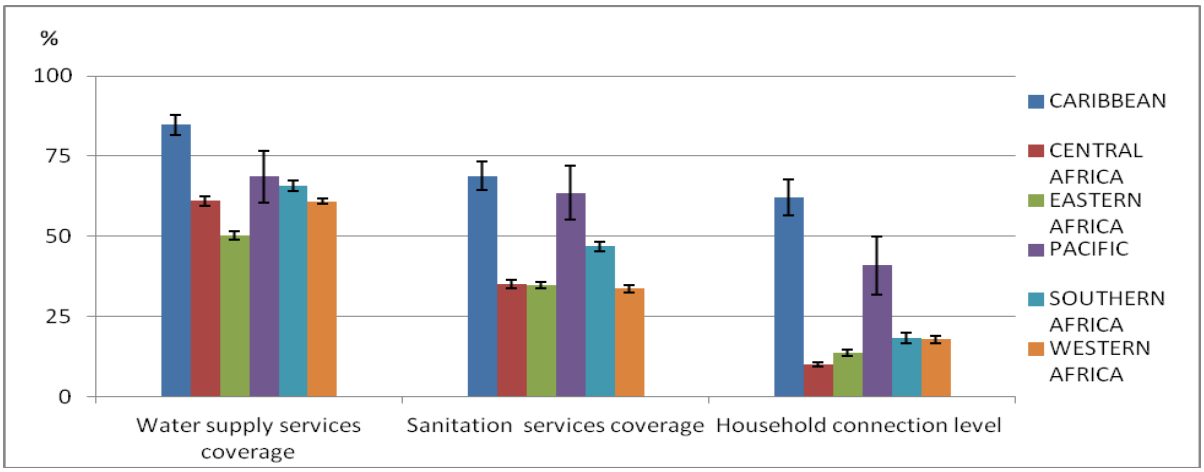


Figure 2.75: Water services indicators by ACP region.
Average values and standard error of the mean are displayed.

Also clear socio-economic differences were found between Caribbean and Pacific, and the rest of regions, especially for the GDP, much higher in the proposals for these two regions (Figure 2.76).

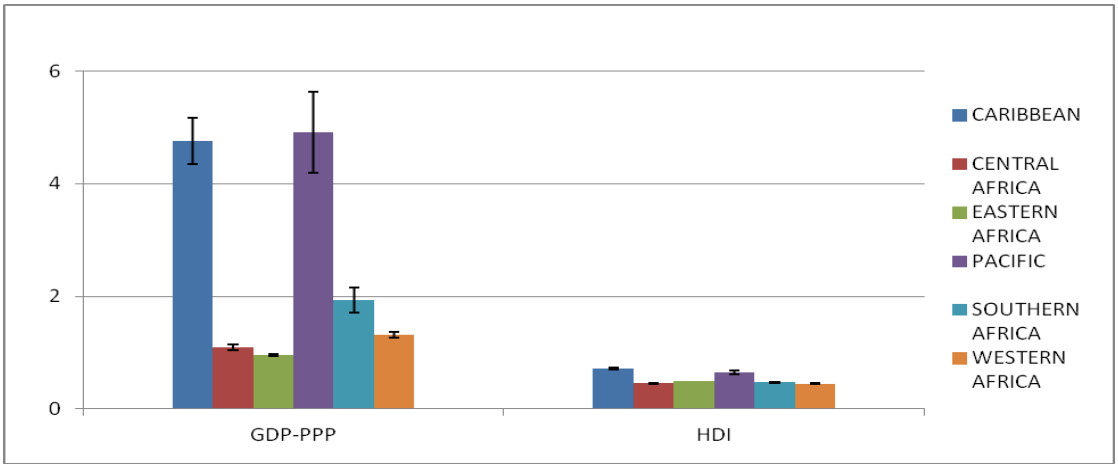


Figure 2.76: GDP and HDI by ACP region.
Average values and standard error of the mean are displayed. GDP units are Int $ per capita; HDI is dimensionless.

Child mortality showed lower values for Caribbean and Pacific (Figure 2.77), the regions with the best water services. On the contrary, Central Africa countries showed the highest child mortality rates, although water supply level was higher than for other regions with lower child mortality (Figure 2.77). This could be an indication of the limitation of the concept improved water sources to approach the real access to safe water or of the existence of other variables determining child mortality for those countries.

As for malaria, an illness that weakens and causes high population mortality, prevalence was in general very high except for the Caribbean (Figure 2.77). The highest values for water services (supply, sanitation and households connection) in the Pacific were not translated into low values of the prevalence of this disease.

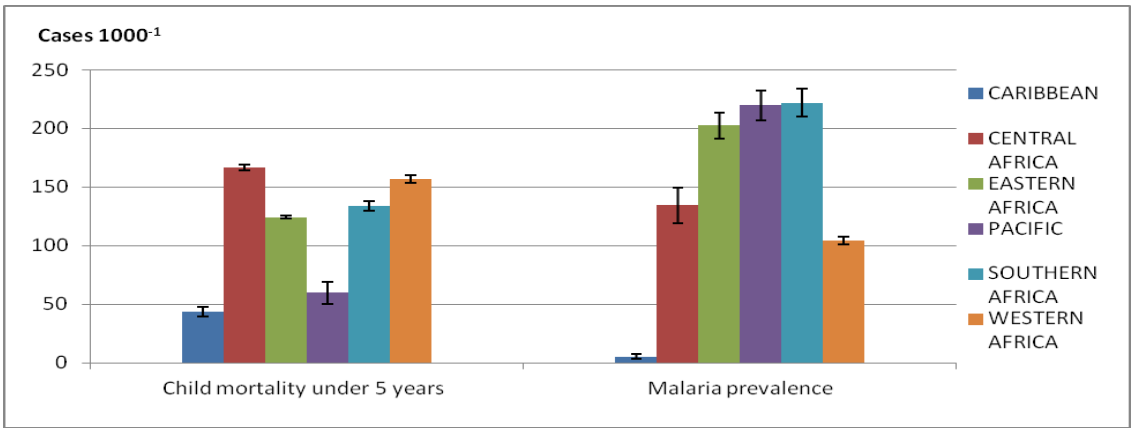


Figure 2.77: Health indicator by ACP region.
Average values and standard error of the mean are displayed.

Other socio-economic indicators that may be related to water services mirrored in general terms a very variable situation among regions. The percentage of dry land ranged from 0% for Caribbean and Pacific proposals until more than 50% for Southern and Western Africa (Figure 2.78. The proportion of urban population living in slums was particularly high for all African countries (Figure 2.78), which fits with the high levels of child mortality and the low levels of sanitation services displayed above.

Again Caribbean and Pacific (positively) differ from the rest for variables regarding enrolment of children at school (Figure 2.78). The Caribbean showed the lowest female economic activity among all regions, which is typical from countries with better income level, in the context of developing countries.

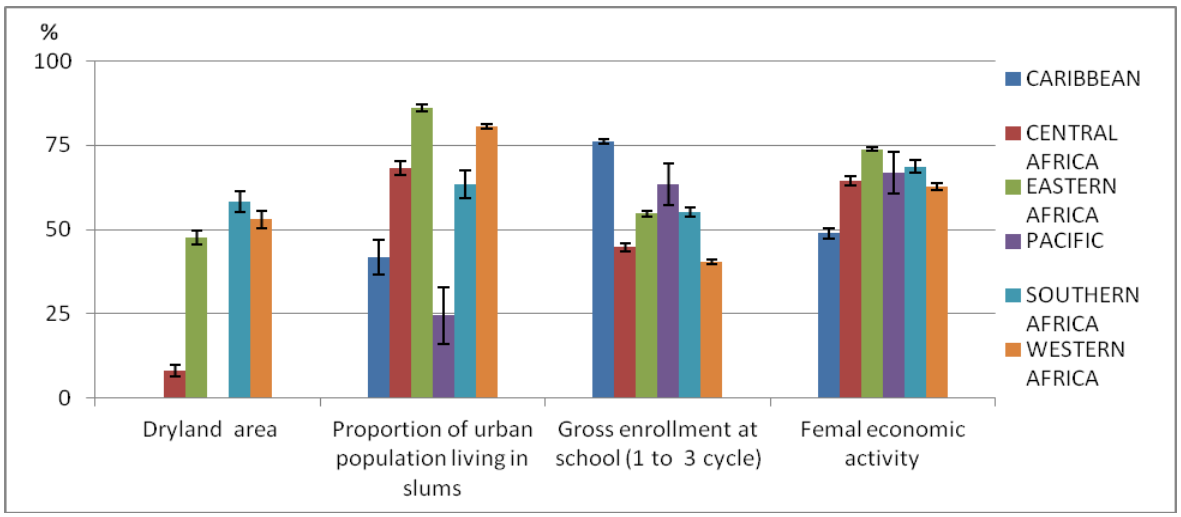


Figure 2.78: Socio-economy indicators by ACP region.
Average values and standard error of the mean are displayed.

Water resources available per capita differed enormously among regions as well (Figure 2.79). Thus, proposals to be implemented in countries in all African regions but Central Africa had much lower resources available. Pacific and Caribbean also presented high water resources availability. However, the relationship between water resources and water services coverage is not straightforward, as we can deduce from the comparison of the figure below and Figure 2.75.

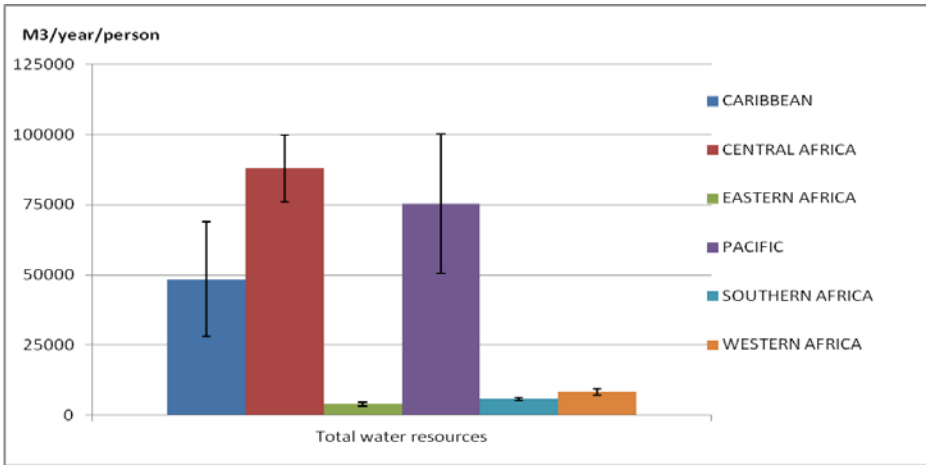


Figure 2.79: Total water resources indicator by ACP region.
Average values and standard error of the mean are displayed.

Apart from water services and the above mentioned development indicators, population dynamics is another be a crucial factor to identify challenging situations regarding water services now and in the future.

Three African regions, Central, Western and Eastern, showed the higher population growth rates, at local and national scale, for both rural and urban areas (Figure 2.80). Again, as for the

mean values considering all proposals, urban growth rate were always higher than rural ones. This may lead to increase in the percentage of population living in slums, which was already particularly high for the African regions.

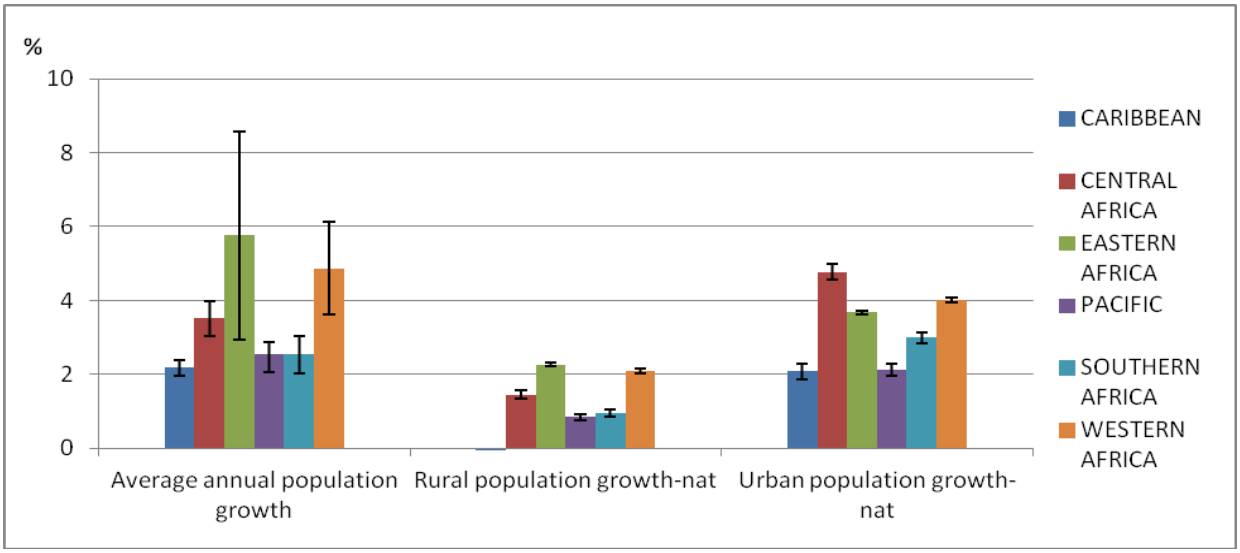


Figure 2.80: Indicators on population growth by ACP region.
Average values and standard error of the mean are displayed.

Regarding governance indicators, countries from Central Africa proposals showed the lowest values for almost all indicators, followed by Eastern Africa for the indicator *Political stability*. Southern Africa presented the lowest value for the indicator *Regulatory quality* (Figure 2.81). Remaining regions showed also low values for these indicators, except for the case of Caribbean region, which presents high acceptable values of *Voice and accountability* and *Political stability*. On the contrary, countries of proposals in the Pacific showed almost positive values for *Voice and accountability* and *Political stability*.

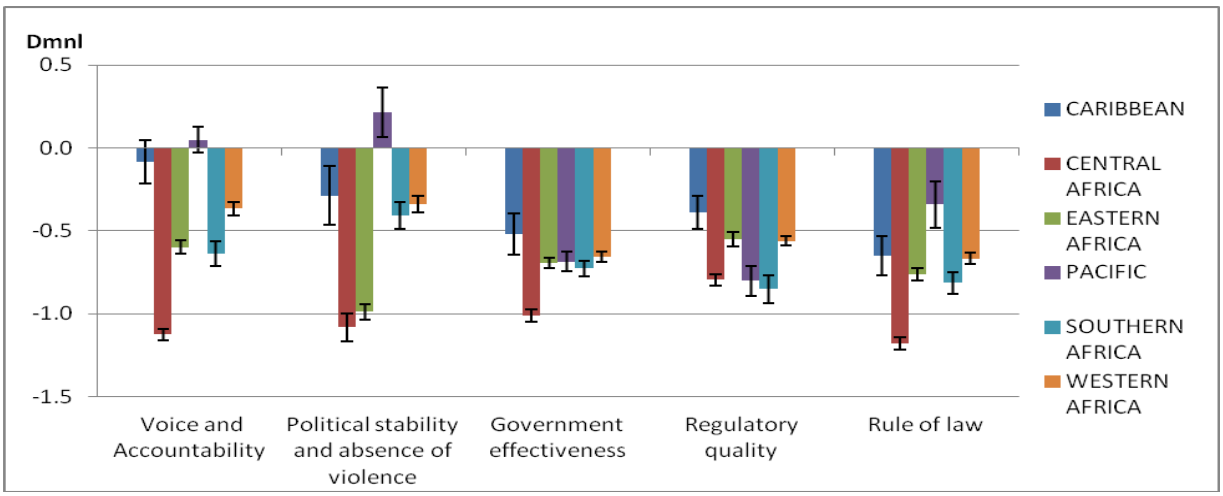


Figure 2.81: Governance indicators by ACP region.
Average values and standard error of the mean are displayed. Dmnl responds to "dimensionless"

As already mentioned in section 2.2.3.9, all countries targeted by 2010 WF proposals receipt development aid. All regions showed similar values of development aid per capita, except for the Pacific, which presented much higher values (Figure 2.82). ODA devoted to water supply and

sanitation was much lower, but showed a similar profile than for total ODA for the different regions, and with the lowest values for Eastern Africa.

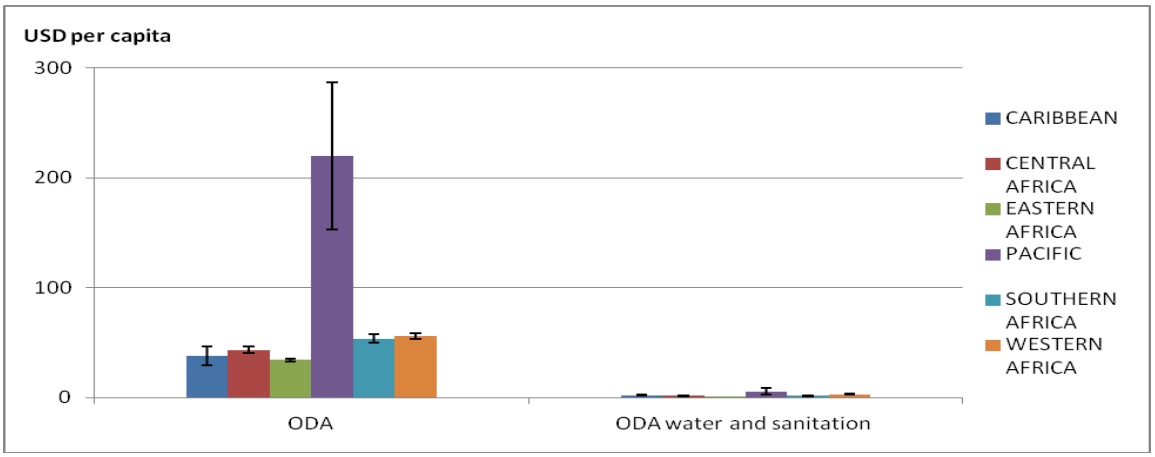


Figure 2.82: ODA and ODA devoted to water supply and sanitation by ACP region. Average values and standard error of the mean are displayed.

2.2.5. Awarded vs. rejected proposals WF 2010

After characterizing data from the 2010 WF CfP and their development context, here we aim at i) characterizing awarded proposals and ii) finding the main differences between the subsets of rejected and awarded proposals. First, analyzing the awarded projects can provide quantitative figures and thus help assessing the impact of the call. However, it is essential to keep in mind the problems on data accuracy and the data cleaning process. Second, the comparison of awarded and rejected proposal will help us to assess the match of the selection procedure with the guidelines criteria, i.e. to elucidate which type of proposals were favoured by the selection procedure. The objectives of the 2010 WF call were, according to its guidelines, to improve health, education and socio-economic development; to provide small scale, appropriate technologies; and to improve capacity building of local people. As stated by the guidelines, projects should additionally favour the poorest/most vulnerable and focus on rural and peri-urban areas.

As in section 2.2.4 (analysis by project region), data analysis here is much simpler than in section 2.2.3 (characterization of all proposals dataset), since we wanted to stress the main differences among awarded and rejected proposals and to make a comparison with a format similar to the previous section (2.2.5), where we analyzed difference among different project regions. However, we display some complementary information, particularly for actors' characterization.

As in previous section, for categorical variables we display the relative frequencies of each category for both proposals' subsets, awarded and rejected, i.e. the frequencies of each category of each variable, relative to the number of awarded and rejected proposals. For these categorical variables, we additionally applied a Chi- square test to identify significant differences of categories frequencies between awarded and rejected proposals. For quantitative variables, we display the mean values and the standard error of means.

2.2.5.1. General impact of the call

67 out of the 539 2010 WF proposals were awarded (12.4%), with 472 (87.6%) resulting in rejection. Awarded proposals were targeting more than 6.7 M beneficiaries, as declared by the applicants, with a total investment of around 130 M € from the EC (Table 2.8), which is around

15% of the total EC funding requested in this call. Most awarded proposals were located in Western Africa, followed by Eastern and Central Africa (Figure 2.83).

AWARDED PROJECTS IN A NUTSHELL

Number of projects: 67
Total EC funding: 129.5 M Euro
Total applicants financial contribution: 33.2 M Euro
Total number of beneficiaries*: 6.7 M people
Total involvements of actors:

- Local partners: 114
- Non local partners: 12
- Co-donors: 19
- Associates: 60

Total proposals with activities on:

- Basic drinking water supply: 59**
- Basic sanitation: 59**
- Education: 12

*as declared by the applicants. **the number is lower than the total number of awarded proposals due to missing data for some proposals.

Table 2.8: Awarded projects in a nutshell.

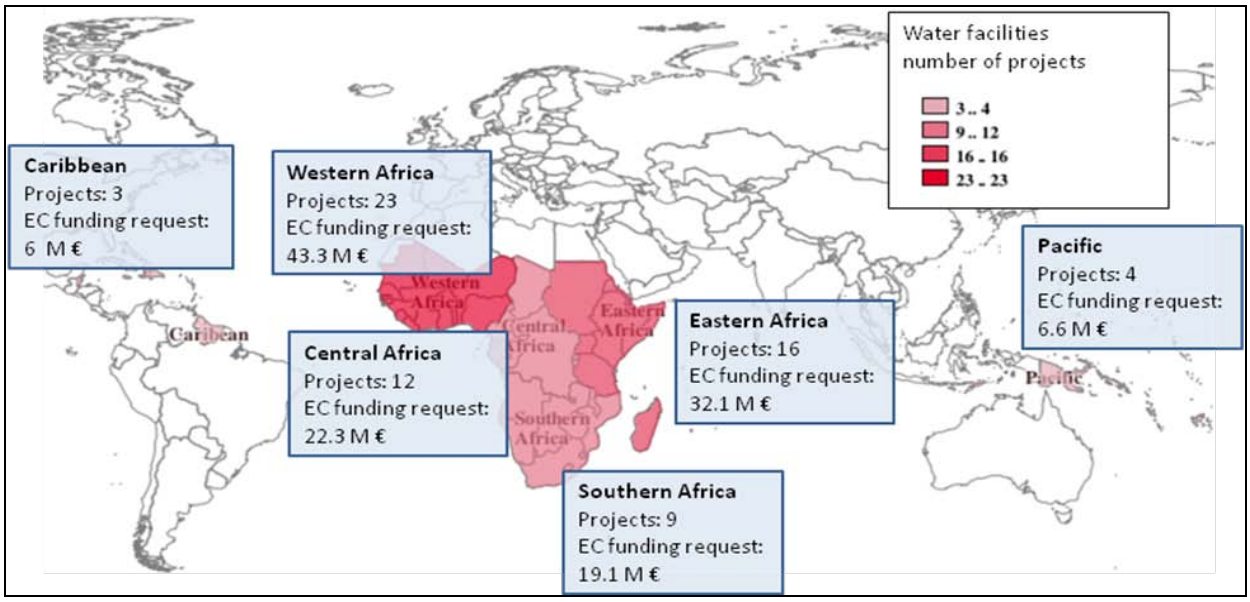


Figure 2.83: Overview of the number of awarded proposals for each ACP region.

In tables 2.9 and 2.10 we display an overview of, respectively, the main categorical and quantitative variables of awarded proposals.

We found some remarkable differences between the subset of proposals that were awarded by the 2010 WF call and the ones that were rejected, which we analyze in the following for each thematic area: actors, budget, socio-economic indicators, etc). Regarding development indicators, the water poverty was excluded from this analysis, since its variability among project countries was not relevant, as the reader can notice in Figure 2.57 in section 2.2.3.9 above.

The most significant differences were regarding the origin of the applicants, their legal status and type, project country, amount of funding, number of beneficiaries as well as some development indicators of the project countries.

Variable	Relation with online database	Units	Year	Missing values	Minimum	Maximum	Mean	Standard deviation of sample (n)	Standard error of the mean
Local partners	Calculated based on *Actor type*	Actors	2011	8	1.0	5.0	1.9	1.3	0.2
Non local partners	Calculated based on *Actor type*	Actors	2011	8	0.0	2.0	0.2	0.5	0.1
Co-donors	Calculated based on *Actor type*	Actors	2011	8	0.0	4.0	0.3	0.8	0.1
Associates	Calculated based on *Actor type*	Actors	2011	8	0.0	5.0	1.0	1.6	0.2
Applications	New variable based on *Name*	Applications to the 3rd call	2011	0	0.0	21.0	4.4	5.1	0.6
EC Funding	*EC Funding*	Euro	2011	0	686921.0	2500000.0	1932027.4	490964.5	60433.6
Applicant financial contribution	*Applicant financial contribution*	Euro	2011	8	0.0	2482036.0	567839.2	367018.8	48191.9
Water budget as % of TDEC	*Water budget as % of TDEC*	Fraction	2011	10	0.1	0.9	0.6	0.2	0.0
Sanitation budget as % of TDEC	*Sanitation budget as % of TDEC*	Fraction	2011	11	0.0	0.5	0.2	0.1	0.0
Hygiene promotion budget as % TDEC	*Hygiene promotion budget as % of TDEC*	Fraction	2011	11	0.0	0.4	0.2	0.1	0.0
Cost per beneficiary	*Overall cost per beneficiary (euro/beneficiary)*	Euro person^{-1}	2011	8	5.6	208.1	51.4	48.3	6.3
Drinking water supply beneficiaries	*Drinking water supply beneficiaries*	People	2011	8	3200.0	260000.0	56947.6	49706.5	6526.8
Sanitation facilities beneficiaries	*Sanitation facilities beneficiaries*	People	2011	8	1128.0	237500.0	43754.6	46188.2	6064.8
Hygiene promotion beneficiaries	*Hygiene promotion beneficiaries*	People	2011	8	3000.0	450000.0	108778.8	101661.7	13348.8
Total number of end beneficiaries	*Total number of end beneficiaries*	People	2011	8	6400.0	450000.0	113208.9	102796.0	13497.8
Drinking water coverage	*Drinking water coverage % improved sources (rural pop at prj start)*	Fraction	2011	12	0.1	0.9	0.4	0.2	0.0
Change water coverage	Calculated as the difference between *Drinking water coverage % improved sources (rural pop at prj end)* and *Drinking water coverage % improved sources (rural pop at prj start)*	Fraction	2011	11	0.0	0.8	0.3	0.2	0.0

Variable	Relation with online database	Units	Year	Missing values	Minimum	Maximum	Mean	Standard deviation of sample (n)	Standard error of the mean
Water sanitation coverage	*Sanitation coverage % Improved facilities (rural pop at prj start)*	Fraction	2011	14	0.0	1.0	0.3	0.3	0.0
Change sanitation coverage	Calculated as the difference between *Sanitation coverage % Improved facilities (rural pop at prj end)* and *Sanitation coverage % Improved facilities (rural pop at prj start)*	Fraction	2011	13	0.0	0.8	0.2	0.2	0.0
GDP-PPP	*GDP*	Int $ per capita		5	0.6	6.6	1.3	0.9	0.1
HDI	*HDI*	Dmnl	2005	2	0.4	0.8	0.5	0.1	0.0
Child mortality under 5 years	*Child mortality under 5 y*	Children 1000^{-1}	2005	0	63.0	209.0	141.9	37.3	4.6
Average annual population growth	*Average annual population growth*	%	2010	11	0.0	0.2	0.0	0.0	0.0
Rural population growth (country)	*Rural population growth*	%	2000-2005	3	-0.1	3.3	1.9	0.9	0.1
Urban population growth (country)	*Urban population growth*	%	2000-2005	3	-0.1	9.2	3.8	1.3	0.2
Gross enrolment at school (1 to 3 cycle)	*Gross enrolment at school (1 to 3 cycle)*	%	2005	33	22.7	85.0	49.0	13.5	0.6
Female economic activity	*Female economic activity*	%	2005	29	29.8	91.8	66.2	13.1	0.6
Proportion of urban population living in slums	*Proportion of urban population living in slums*	%	2001	14	1.0	99.4	74.4	23.1	1.0
Voice and Accountability	*Voice and Accountability*	Dmnl	2004	3	-1.8	0.3	-0.8	0.6	0.1
Political stability and absence of violence	*Political stability*	Dmnl	2004	3	-2.6	0.6	-0.8	0.7	0.1
Government effectiveness	*Government effectiveness*	Dmnl	2004	3	-2.2	0.1	-0.9	0.5	0.1
Regulatory quality	*Regulatory quality*	Dmnl	2004	3	-2.3	0.1	-0.8	0.6	0.1
Rule of law	*Rule of law*	Dmnl	2004	3	-2.3	0.0	-1.0	0.5	0.1
Water supply services coverage	*Water supply services coverage 2004*	%	2004	3	22.0	87.0	57.2	15.9	2.0
Sanitation services coverage	*Sanitation services coverage 2004*	%	2004	3	9.0	70.0	31.1	14.1	1.8

Variable	Relation with online database	Units	Year	Missing values	Minimum	Maximum	Mean	Standard deviation of sample (n)	Standard error of the mean
Household connection level	*Household connection level 2004*	%	2004	3	1.0	53.0	12.6	11.5	1.4
Dryland area	*Dryland proportion percentage*	% of total area	-	7	0.0	91.0	40.8	31.3	4.1
Total water resources	*Total water resources*	m3/year/person	2004	17	379.7	326116.4	23471.9	63067.8	2763.1
ODA	*Official development assistance 2004*	USD per capita	2004	3	10.6	263.3	42.4	36.9	4.7
ODA dedicated to water and sanitation sector	*Total ODA dedicated to Water and Sanitation sector*	USD per capita	2004	3	0.0	7.9	1.7	1.7	0.2

Table 2.9: Quantitative variables from awarded proposals.
National development indicators are displayed in italics, while the rest of the variables were extracted from proposals.

Group	Variable	Relation with online database variables	Missing values	Variables categories	Frequency per category	Relative frequency per category (%)
Applicant features	Legal status	Based on *Legal status.* According to the variability of data[11], categories were reclassified as *low level management, high level management, ONG, private interest institution and University/Research/Education*	0	NGO	56	83.6
				Low level management	0	0.0
				High level management	6	9.0
				Private interest institution	5	7.5
				University/Research/ Education	0	0.0
				Other	0	0.0
	Legal type	*Legal type*	6	Private	61	92.4
				Public	5	7.6
	Region of origin	*Region of origin*	0	Europe	60	89.6
				Western Africa	2	3.0
				Non ACP International Organization	5	7.5
				Rest	0	0.0
	Previous award	New variable based on information from the three calls	0	None	27	40.3
				Both calls	23	34.3
				Call 1	6	9.0
				Call 2	11	16.4
Projects features	Project region	*Project region*	1	Western Africa Region	23	34.3
				Eastern Africa Region	16	23.9
				Central Africa Region	12	17.9
				Southern Africa Region	4	6.0
				Caribbean Region	3	4.5
				Pacific Region	4	6.0
	Project duration	Adapted from *Duration in months.* The original variable was quantitative. Short corresponds to a duration smaller than 36 months, the minimum duration according to the call guidelines; medium corresponds to values between 36 and 48 months; and long to values from 48 month and up to 60 months	3	Medium	34	50.8
				Long	33	49.3
				Short	0	0.0

[11] According to the variability of data, the frequency of some fields was very low, and we found more relevant to show differences among bigger groups and reduce the noise that some variables might introduce.

Group	Variable	Relation with online database variables	Missing values	Variables categories	Frequency per category	Relative frequency per category (%)
	Local partner status	New from Legal status	172	Non state	44	75.9
				Both	9	15.5
				Local authorities	5	8.6
				None	0	0.0
Activities	Activities on basic sanitation	Basic drinking water supply (DAC code 14030)	8	Yes	59	100.0
				No	0	0.0
	Activities on basic water supply	Basic drinking water supply (DAC code 14030)	8	Yes	59	100.0
				No	0	0.0
	Activities on health education[12]	Health education (DAC code 12261)	8	Yes	47	79.7
				No	12	20.3
	Activities on waste management	Health education (DAC code 12261)	8	No	57	96.6
				Yes	2	3.4
	Activities on water supply and sanitation education[13]	Education and training in water supply and sanitation (DAC code 14081)	8	Yes	0	0.0
				No	59	100.0
	Activities on conservation of water resources	Water resources conservation (DAC code 14015)	8	Yes	0	0.0
				No	59	100.0
	Activities on agriculture	Agricultural water resources (DAC code 31140)	8	No	59	100.0
				Yes	0	0.0

Table 2.10: Categorical variables from the awarded proposals.
Fields of each variable are displayed from up to down from the biggest to the smallest values.

2.2.5.2. Project location

Western Africa was the region with more awarded proposals, followed by Eastern Africa (Figure 2.84). However, no bias in favor or against any specific project region was found for the awarded proposals: Western Africa was also the most frequent project region for the whole proposals dataset and, as can be seen in Figure 2.85, the relative frequency of all project regions was quite constant between awarded and rejected proposals groups.

[12] Information, education and training of the population for improving health knowledge and practices; public health and awareness campaigns; promotion of improved personal hygiene practices, including use of sanitation facilities and hand washing with soap. It is included in what is considered *community-led total sanitation* approach.

[13] Education and training for sector professionals and service providers. It is considered *capacity building*.

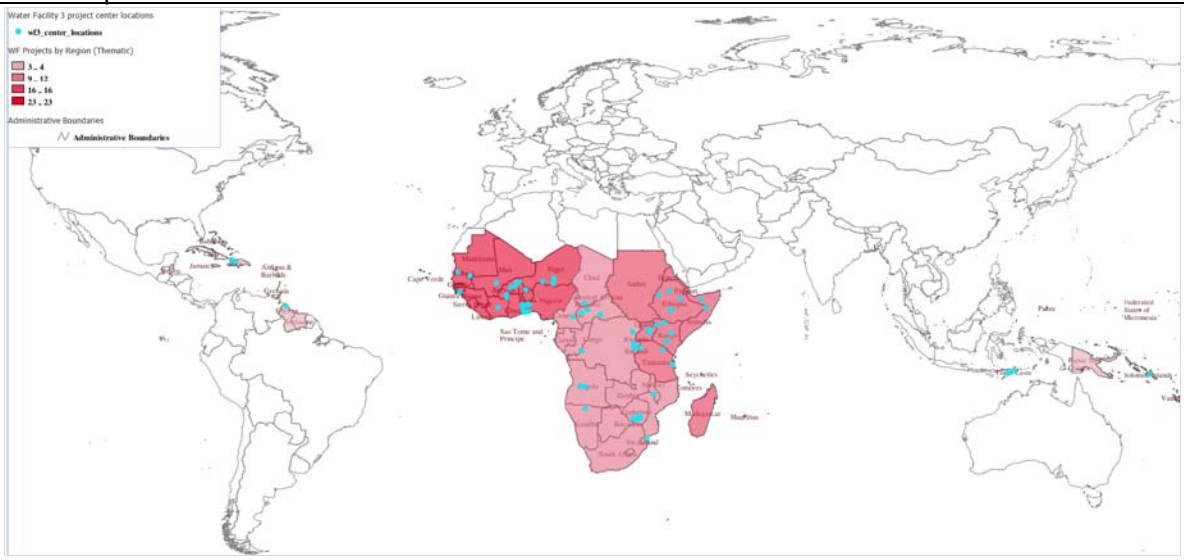


Figure 2.84: Location of 2010 WF awarded proposals with the number of projects by region as background.

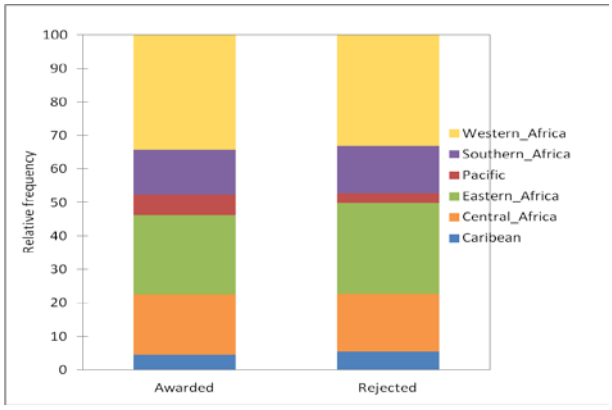


Figure 2.85: Project regions for the group of awarded and rejected proposals (relative frequencies).

However, some differences can be found when analyzing data at country level. The projects were located in 29 ACP countries, whose geographical distribution is shown on Figure 2.86.

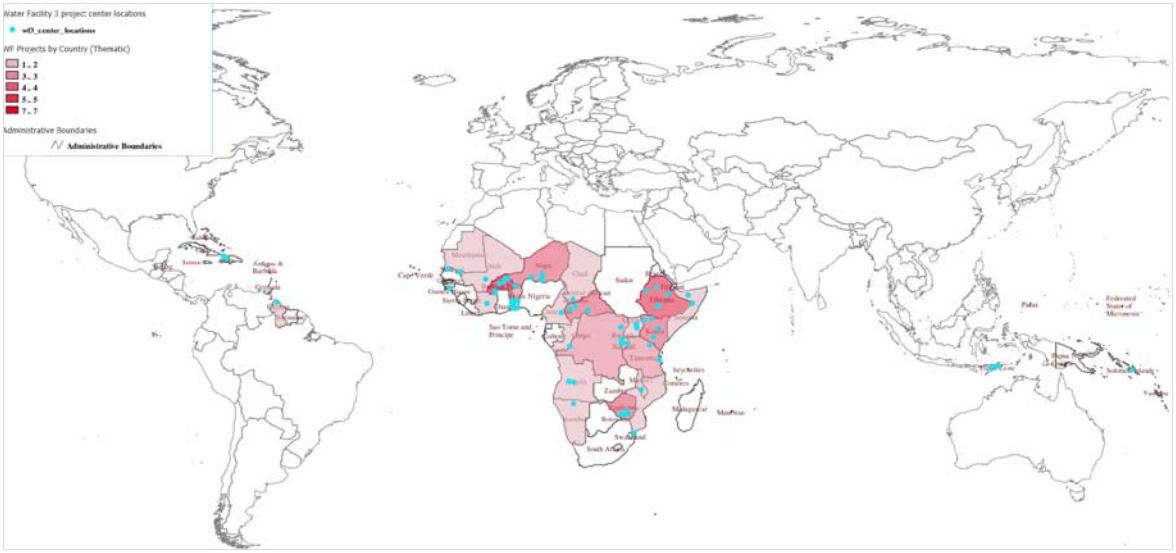


Figure 2.86: Location of 2010 WF awarded proposals with the number of projects by country as background.

The ratio between the number of proposals submitted by each country and the number of proposals that were eventually awarded differs among countries within the same ACP region and within different regions as well (Figure 2.87). Thus, for some countries, e.g. Senegal, Zambia and the Dominican Republic, no project was ever awarded, although many proposals were submitted. On the contrary, for some countries, the number of projects awarded was relatively high as compared to the number of submissions (Figure 2.87): Burkina Faso (BF), Central African Republic (CF), Timor Leste (TL) and Zimbabwe (ZW).

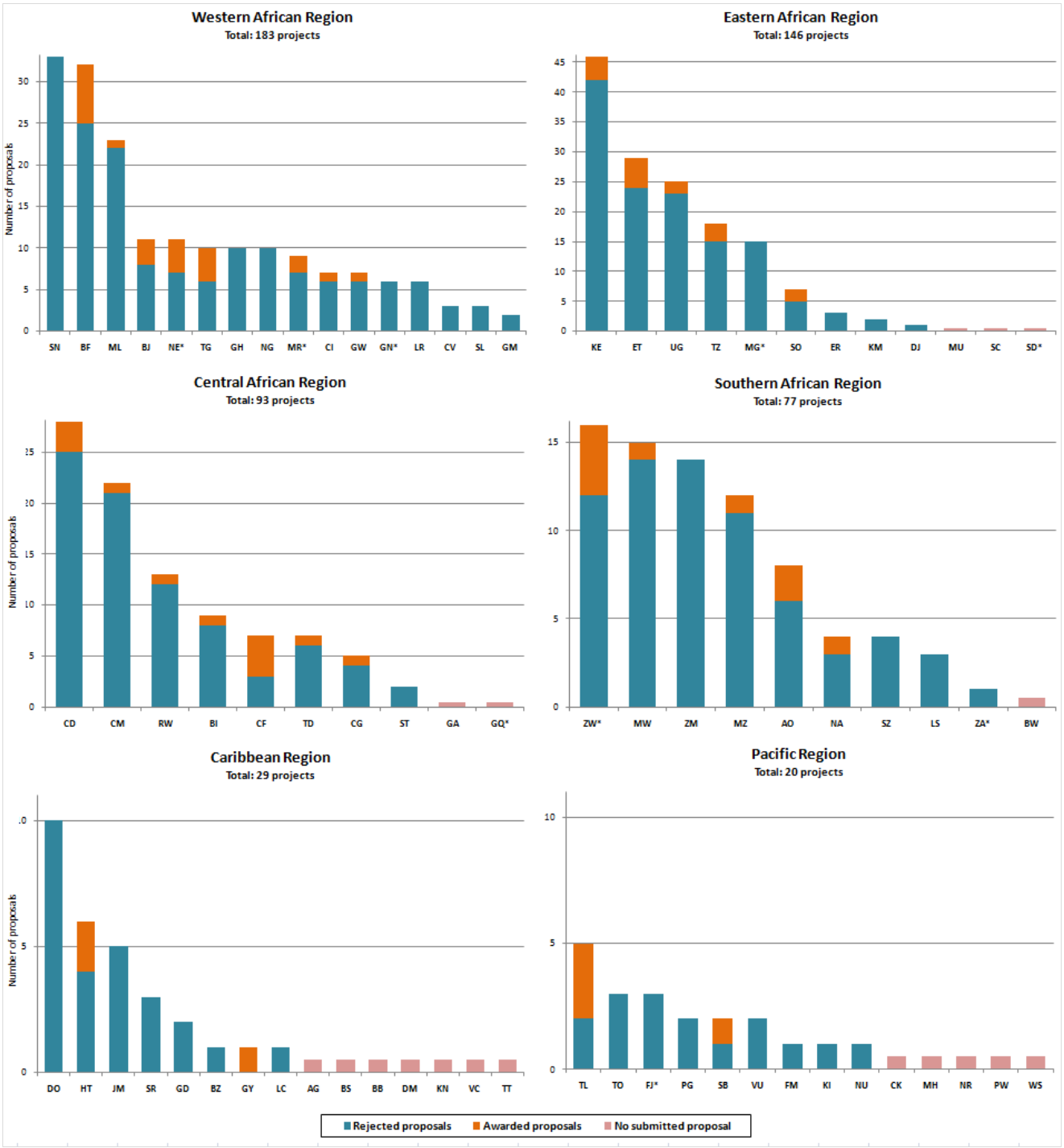


Figure 2.87: WF 2010 awarded and rejected projects distribution per region and per country. Countries with a star (*) are countries with special eligibility criteria. See ACP-EU WF 2010 WaSH Application Guidelines for details on the special eligibility criteria.

2.2.5.3. Actors characteristics

As compared to the total number of actors involved in the whole set of 2010 WF proposals, awarded projects kept around 19% of local partners, 9% of non local partners, 24% of co-donors and 17% of associates. There were 224 different organizations involved in the 67 projects awarded, most of them originated from ACP countries, as can be seen in Figure 2.88.

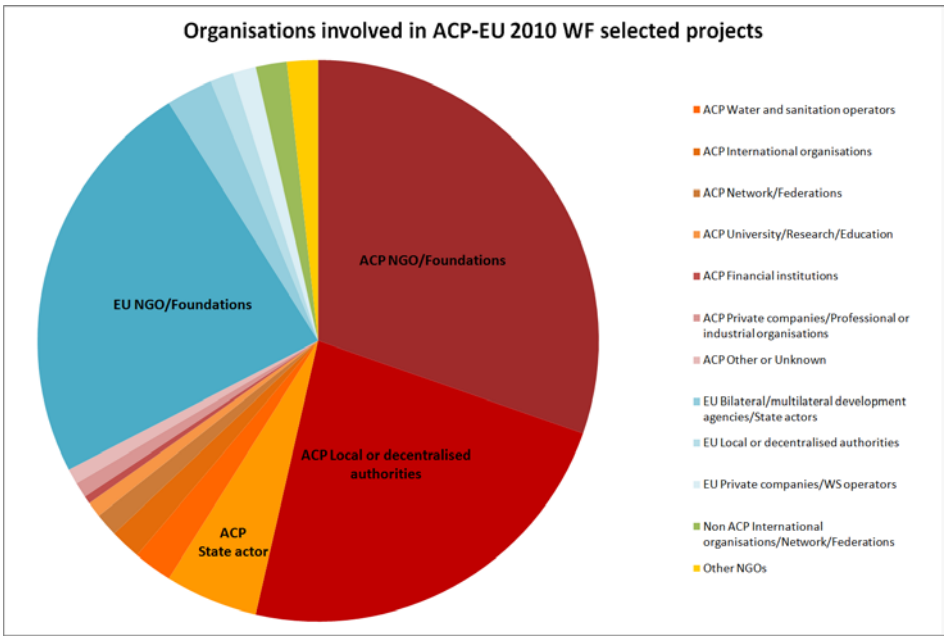


Figure 2.88: Organizations involved in WF 2010 awarded projects by legal status and origin.

However, actors from ACP countries reduced significantly their presence if we look at projects applicants (Figure 2.89): EU organizations were mostly the applicants, while ACP organizations were mostly local partners and associates. This is globally an expected result, since as underlined before, the applications guidelines state that *"partnership with local NSAs and/or local authorities in the country where the proposed action will take place is obligatory"*.

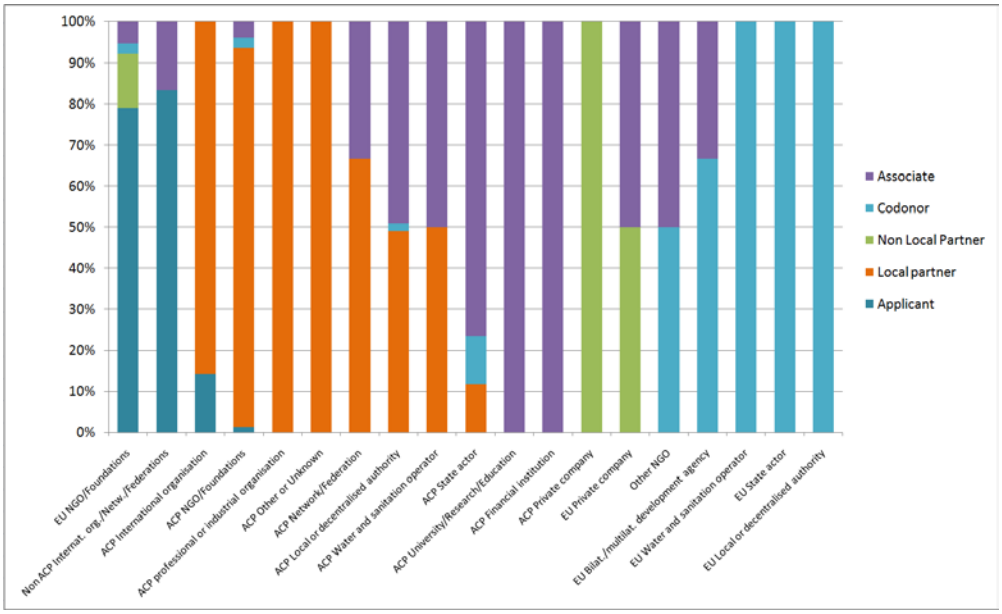


Figure 2.89: Organizations involved in WF 2010 awarded projects by actor type and legal status.

More in detail, the most common attributes of awarded applicants as compared to rejected ones were: an origin in Europe (Figure 2.90a), NGO as legal status (Figure 2.90b) and private legal type (Figure 2.90c). Proposals presented by universities/research institutions and low level management institutions were never awarded (Figure 2.90b). Neither were awarded applicants with an origin different than Europe, Western Africa or non ACP international institutions, or lacking local partners. Proposals having non-state or both non-state and state local partners showed higher frequency in the awarded group than proposals with only local authorities as local partners (Figure 2.90d). Applicants that have already been awarded by the two previous calls were relatively more awarded in this 3rd call (Figure 2.90e). Moreover, all the above mentioned differences between awarded and rejected proposals groups were found significant according to the results of the Chi square test of frequencies independence (Table 2.11), except for the case of *Local partner status*. Particularly significant differences between awarded and rejected applicants were found for, by this order, *Region of origin*, *Legal type*, *Previous award* and *Legal status*.

In addition, awarded applicants were also presented by applicants that were able to submit on average more applications for this call than rejected applicants (Figure 2.90f).

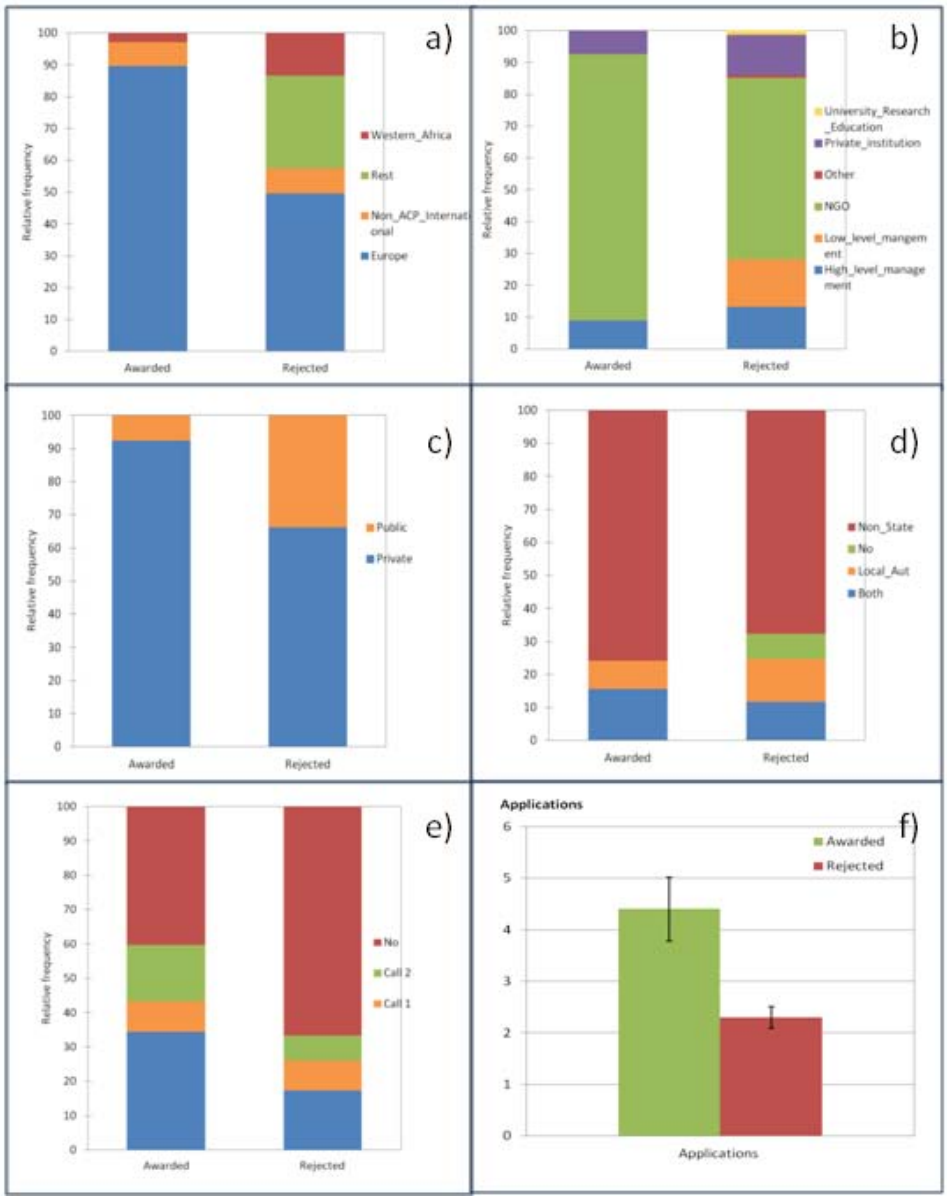


Figure 2.90: Characterization of applicants for awarded and rejected proposals.

Parameter	Variable				
	Legal status	Legal type	Region of origin	Local partner status	Previous award
Chi-square (Observed value)	20.53	18.78	42.01	6,324	21.09
Chi-square (Critical value)	11.07	3.84	7.83	7.82	7.82
DF	5	1	3	3	3
p-value	**0.001**	**< 0.0001**	**< 0.0001**	0.097	**0.0001**
alpha	0.05	0.05	0.05	0.05	0.05

Table 2.11. Results of the test of independence between each of the categorical variables and the variable eligibility.
A p-value smaller than the significance level alpha=0.05, allow us to reject the hypothesis of independence between variables, i.e. to state that there are significant differences between awarded and rejected proposals for this particular variable. Significant values are highlighted in bold.

2.2.5.4. Project duration

The group of awarded proposals showed higher frequencies of long duration projects, while short duration ones were not present at all (Figure 2.91). These differences were also found significant according to the Chi square test.

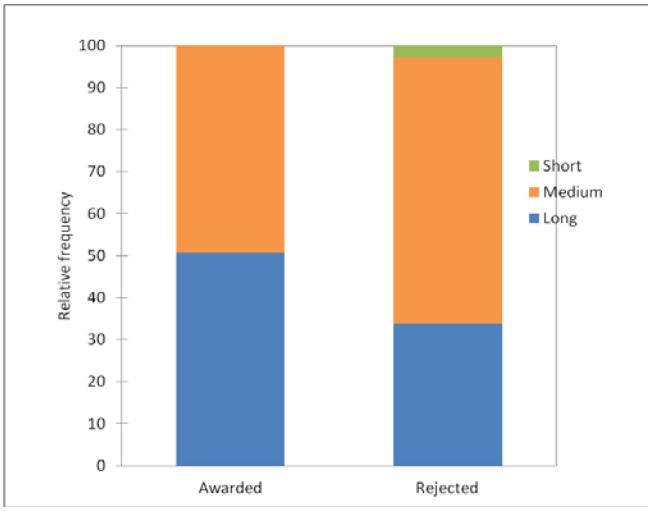


Figure 2.91: Relative frequencies of proposals with different duration for awarded and rejected proposals.

2.2.5.5. Activities and technologies

Technology data was available for 59 out of 67 awarded projects. Small differences were found between awarded and rejected proposals, considering the general types of activities (Figure 2.92). All awarded projects included activities on basic water supply and basic sanitation (figures 2.92a and 2.92b, respectively), which was a requirement of the call. The proportion of projects including activities on health education increased for awarded proposals (Figure 2.92c), but the opposite occurred for education activities on water supply and sanitation (Figure 2.92d).

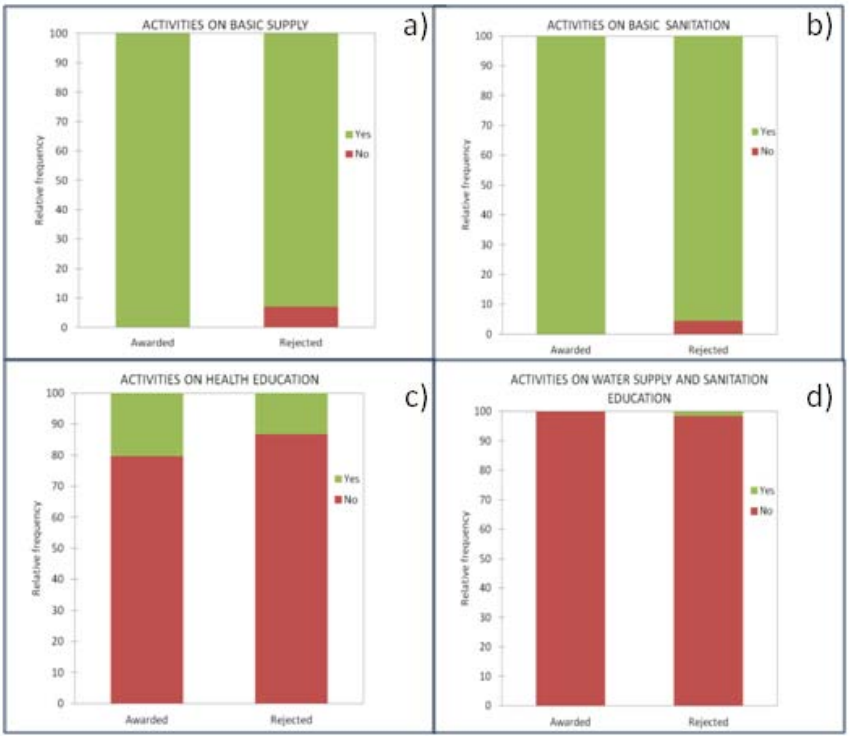


Figure 2.92: Relative frequencies of the presence of different activities to be implemented for awarded and rejected proposals subsets.
Activities types were analyzed here as binary (0 when the activity type was absent in the project proposal, 1 when it was present).

More in detail, and having a look to the number of projects for which a given technology was cited (Figure 2.93) we first observe that the diversity of technologies decreased from 30 to 20, as compared to the entire set of proposals (see Figure 2.30 in section 2.2.3.4). Thus, the following technologies/activities were not planned in any of the awarded proposals: *Flush or push to piped sewer system*, *Waste water/sludge treatment*, *Sensibilisation/education* and all minor technologies following on the right part of the mentioned Figure 2.30 (which contained technologies for all proposals). For the other activities, the order in terms of citations remained almost the same as for the whole proposals dataset, being *Tube wells/boreholes* (basic drinking water supply technology) and *Ventilated improved pit latrines* (basic sanitation technology) the most cited technologies. The Community-led total sanitation was also fairly present.

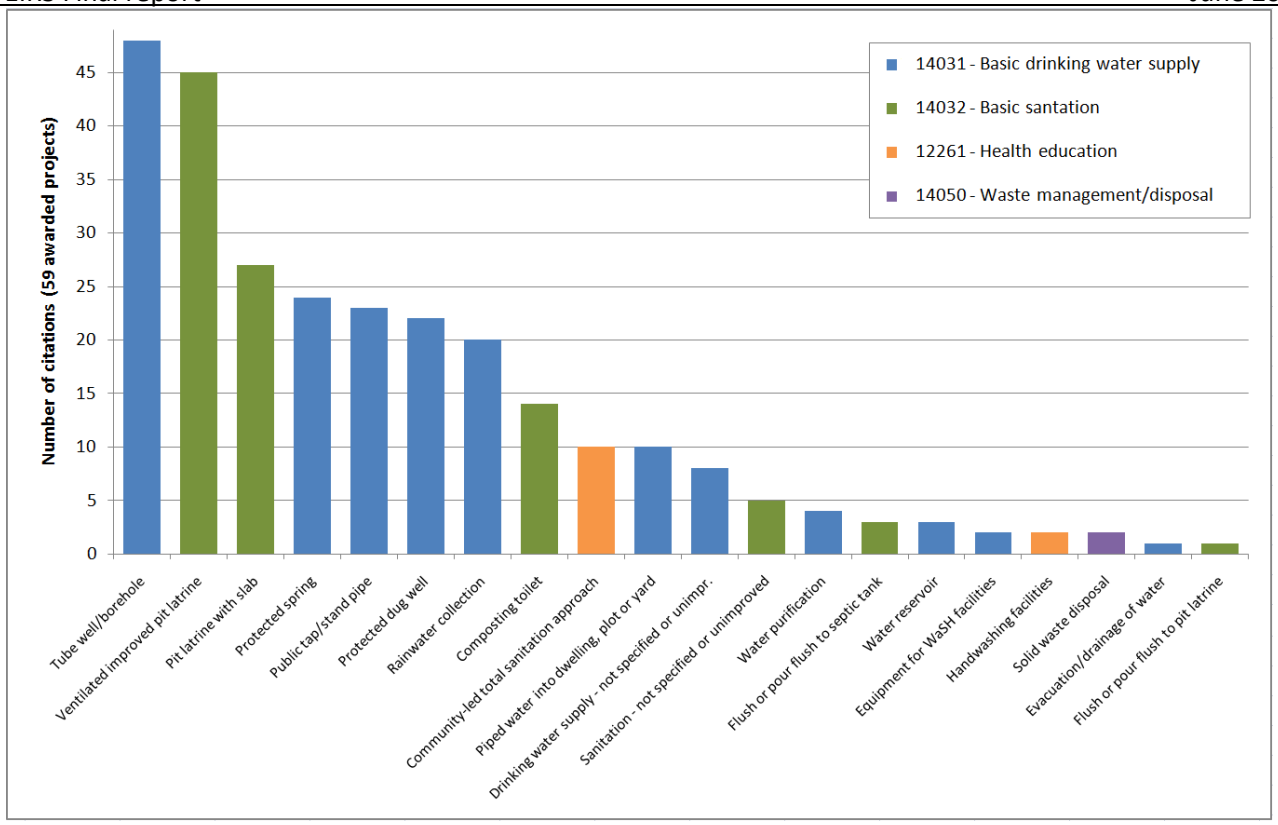


Figure 2.93: Technologies citations for 2010 WF awarded projects

In the specific field of drinking water supply, *tube wells and boreholes,* two of the cheapest technologies, were the most cited (Figure 2.94), while pit latrines and pit latrines with slab were the most cited technologies in the field of sanitation (Figure 2.95).

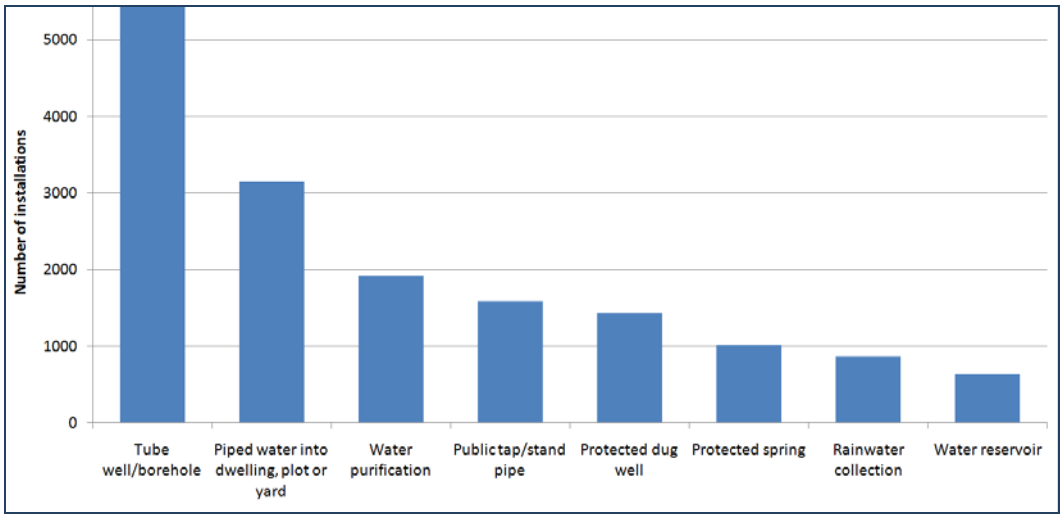


Figure 2.94: Drinking water supply installations of WF 2010 awarded projects.

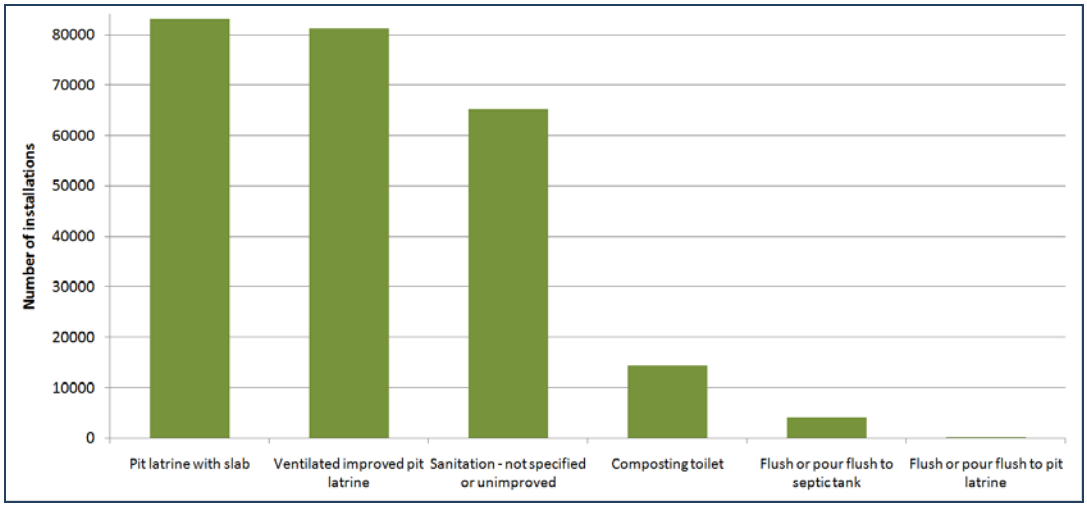


Figure 2.95: Sanitation installations of WF 2010 awarded projects.

2.2.5.6. Project financing and budget closure

Only 58 of the 69 awarded projects had complete and coherent project financing details. As already anticipated in section 2.2.5.1 (general impact of the call), a total of 130 M € was awarded from the EC, which was around 15% of the total EC funding requested in this call. The highest share of funding targeted Western Africa projects, followed by Eastern and Central Africa (Figure2.83 in section 2.2.5.1 above), the regions where also more projects were going to be implemented.

At country level, the highest funding amounts were allocated to Burkina Faso, Zimbabwe and Ethiopia, as can be geographically seen in Figure 2.96. More in detail, we can see that the number of funded projects per country ranged from 1 to 7 (figures 2.97 and 2.98). There was no remarkable dispersion of the number of funded projects versus the amount of funding (Figure 2.98), which shows that on average projects received a similar amount of funding regardless the project country.

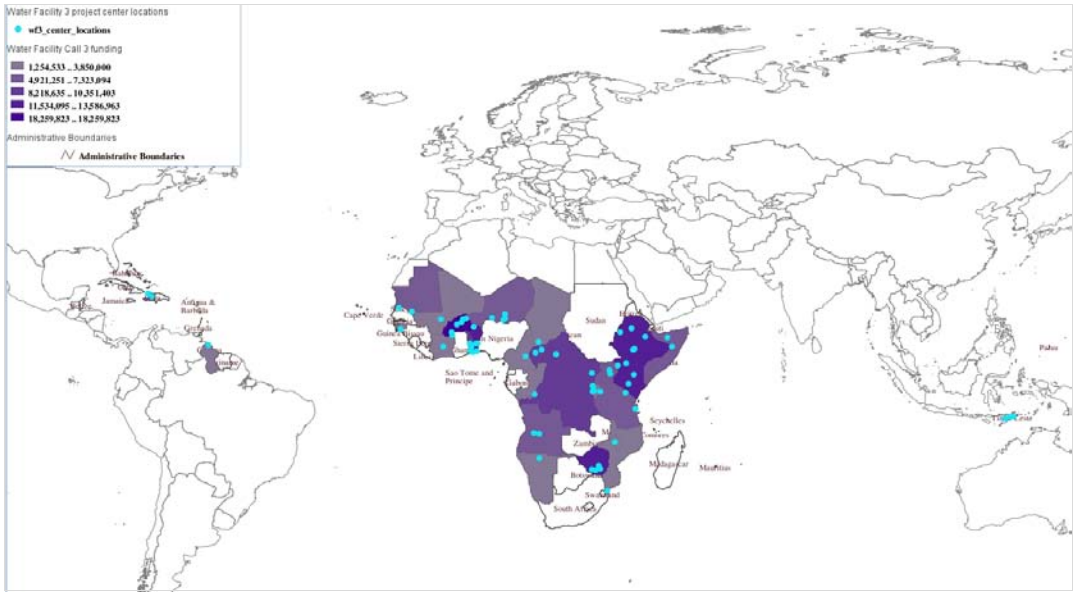


Figure 2.96: Geographic distribution of projects awarded by the 2010 WF and funds at country level.

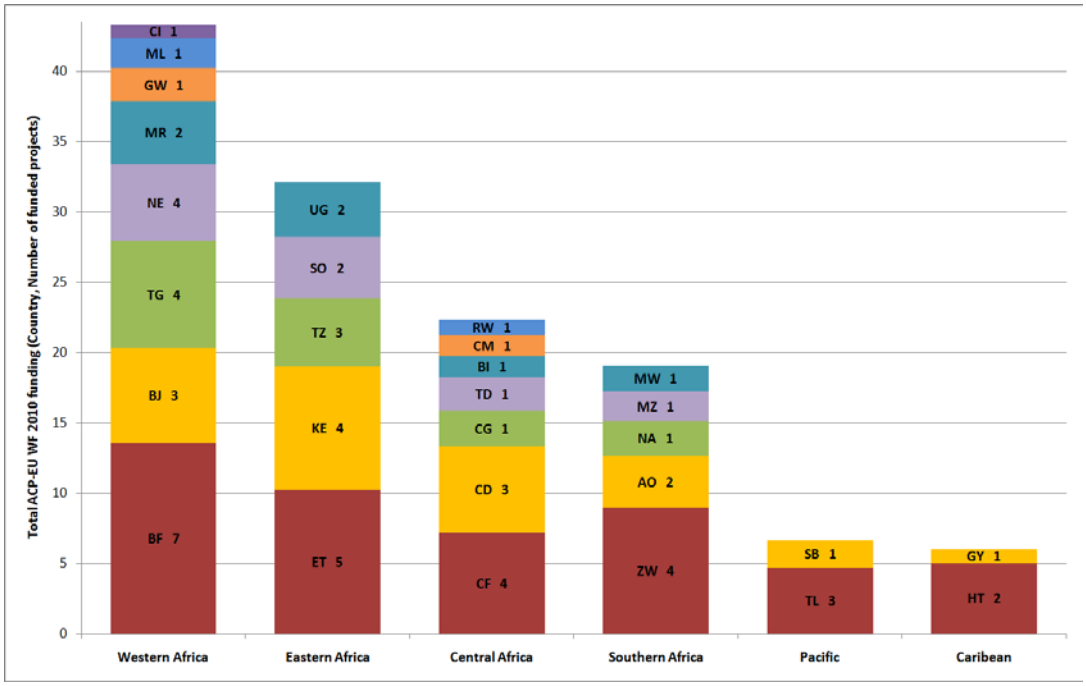


Figure 2.97: Distribution of projects and funds awarded by the 2010 WF by region.

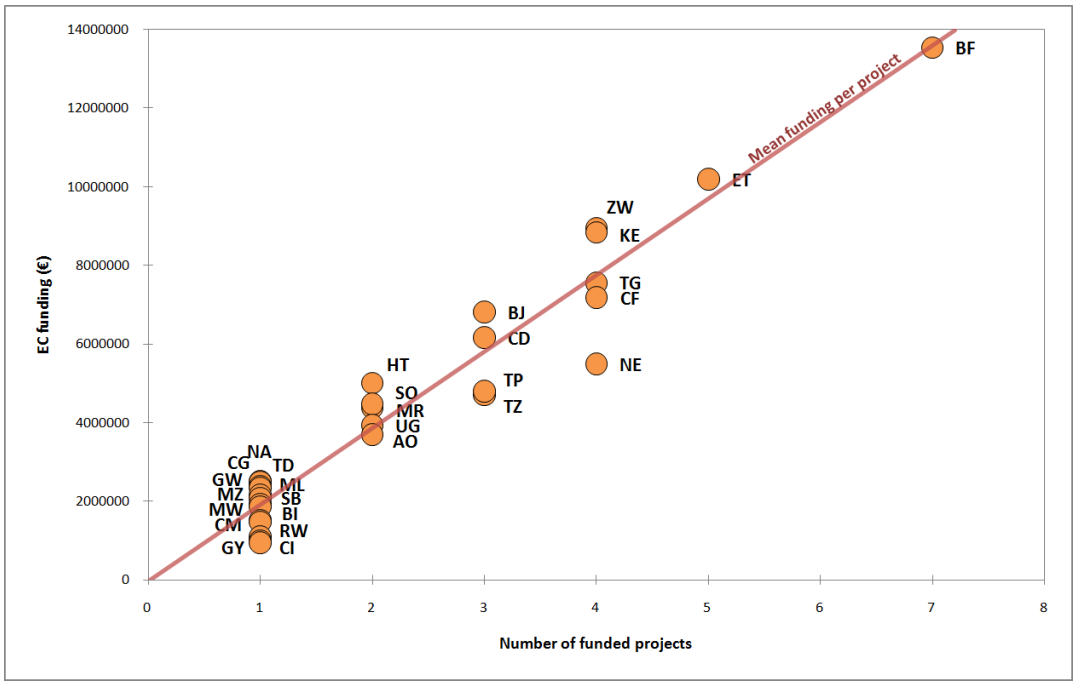


Figure 2.98: Number of funded projects vs. EC funding by country (WF 2010 awarded projects).

However, there were remarkable differences between average funding request for awarded and rejected proposals, and also for average applicant financial contribution. Awarded proposals were submitted by applicants who requested higher funding, with an average grant amount or 1.93 M € per project; and which also contributed with more funding as compared to rejected proposals (Figure 2.99).

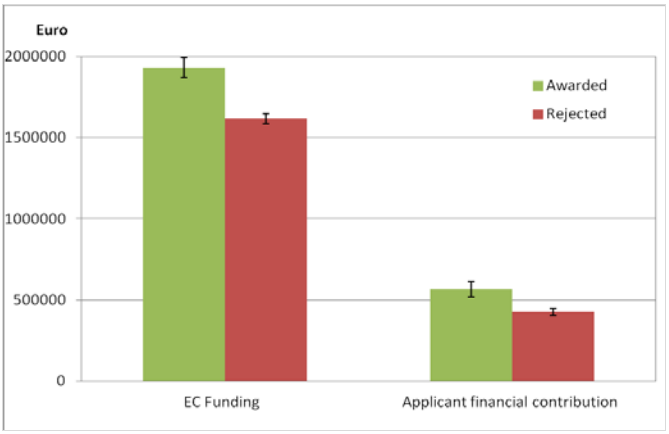


Figure 2.99: EC funding request and applicant financial contribution for awarded and rejected proposals. Average values and standard error of the mean are displayed.

As for funding sources, the most relevant for awarded projects were the WF (72.8%), followed by applicants (22.4%) and then by partners and co-donors, which contributed with around 4.8% to the total projects costs (Figure 2.100). This numbers are quite similar to the characterization of the whole set of proposals (including also rejected proposals, see Figure 2.35 in section 2.2.3.5), except for a slightly higher share of applicant contribution for awarded proposals.

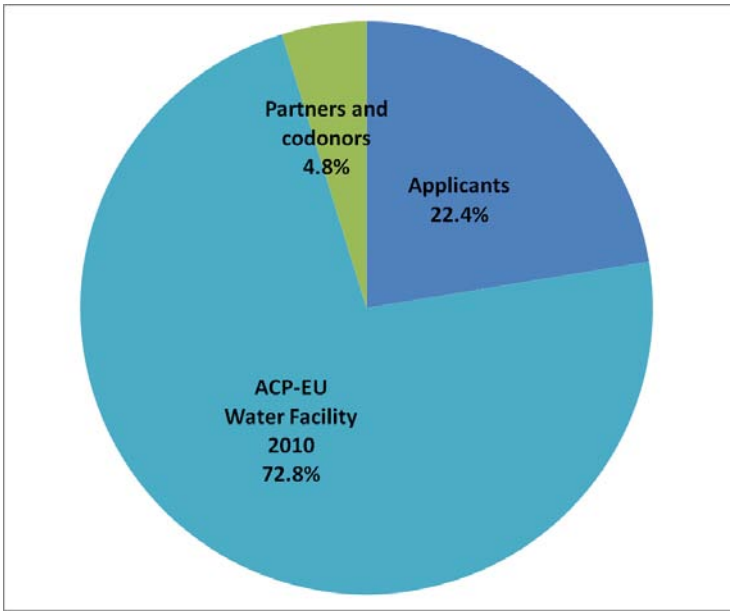


Figure 2.100: Financing of WF 2010 awarded projects.

Although partners and co-donors contributed with small economic amount (4.8%), it is important to know who these contributors were. As displayed in Figure 2.101, most of them were EU organizations (NGOs, foundations, Member State governments and development agencies). ACP states, ACP NGOs and the beneficiaries' contributions amount to around 20% of this amount.

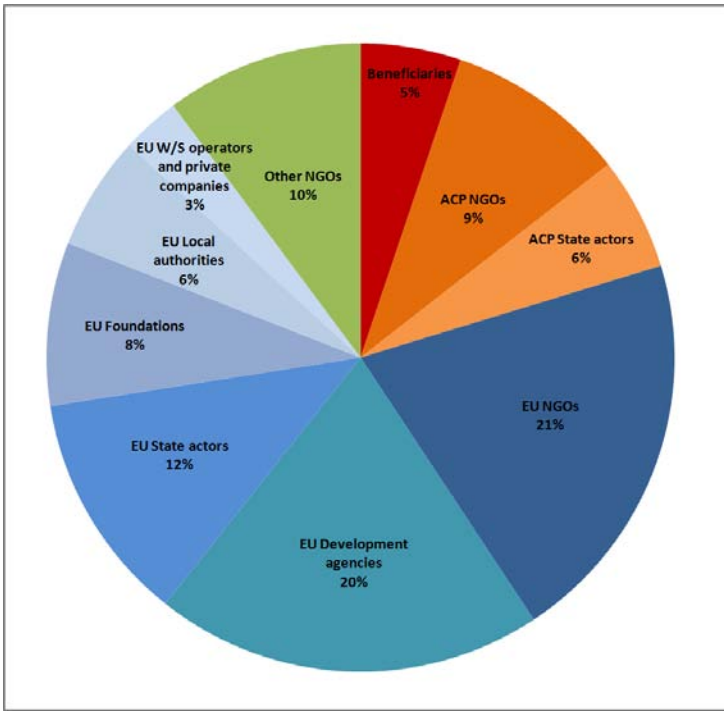


Figure 2.101: Partners and codonors contribution to 2010 WF awarded projects financing.

Regarding to budget allocation, awarded proposals slightly allocated a bigger budget share to water supply and hygiene activities, and less to water sanitation than rejected proposals (Figure 2.102).

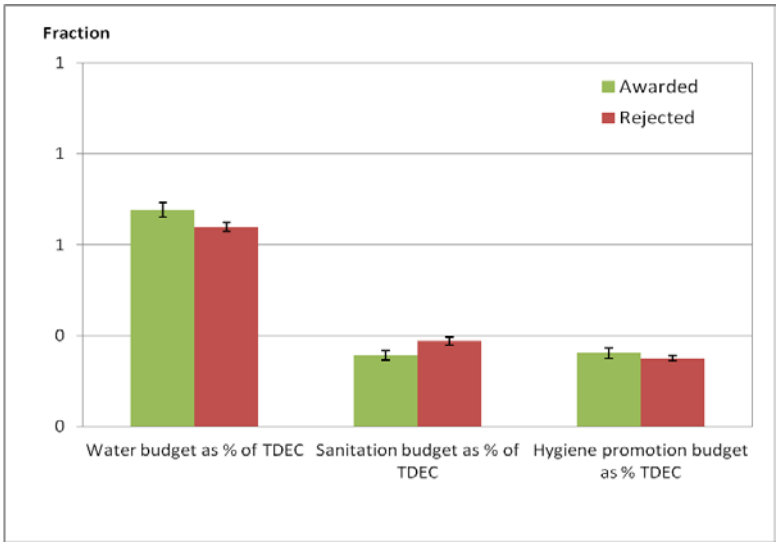


Figure 2.102: Budget allocation for awarded and rejected proposals. Average values and standard error of the mean are displayed.

2.2.5.7. Expected improvement of local water services

Population in awarded projects areas was slightly less covered by water supply and sanitation services than for rejected proposals (Figure 2.103). This shows a relative focus of award in less favored areas. Awarded projects also declared higher improvement of water supply and

sanitation coverage than rejected proposals (Figure 2.103), which shows the priority given to projects with a higher impact on these variables.

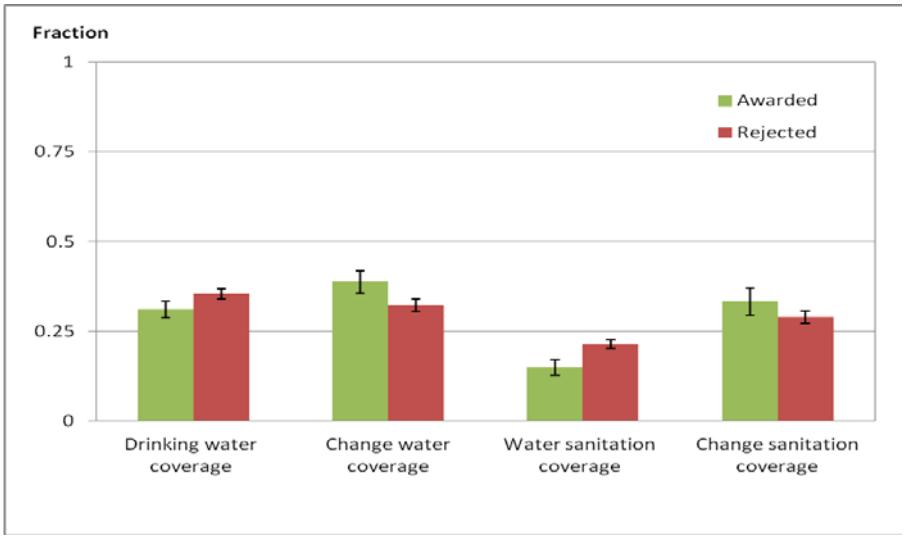


Figure 2.103: Water services and water improvement at project location for awarded and rejected proposals.
Average values and standard error of the mean are displayed.

2.2.5.8. Beneficiaries and cost per beneficiary

Beneficiary data was available for 59 out of 67 awarded projects. For the interpretation of this data the considerations given in section 1.5.2.7 should be also taken into account. For instance, the assumption we made that applicants gave reliable estimations of project beneficiaries.

The total number of beneficiaries for the 59 awarded projects we had data of, as based on data declared by applicants, was 6.7 M people. This variable ranged from 6400 to 450000 (Table 2.9 at the beginning of section 2.2.5.1), being the distribution quite spread (Figure 2.104). Again, as for the whole set of proposals, the number of hygiene beneficiaries was the highest among all beneficiaries types (Figure 2.105).

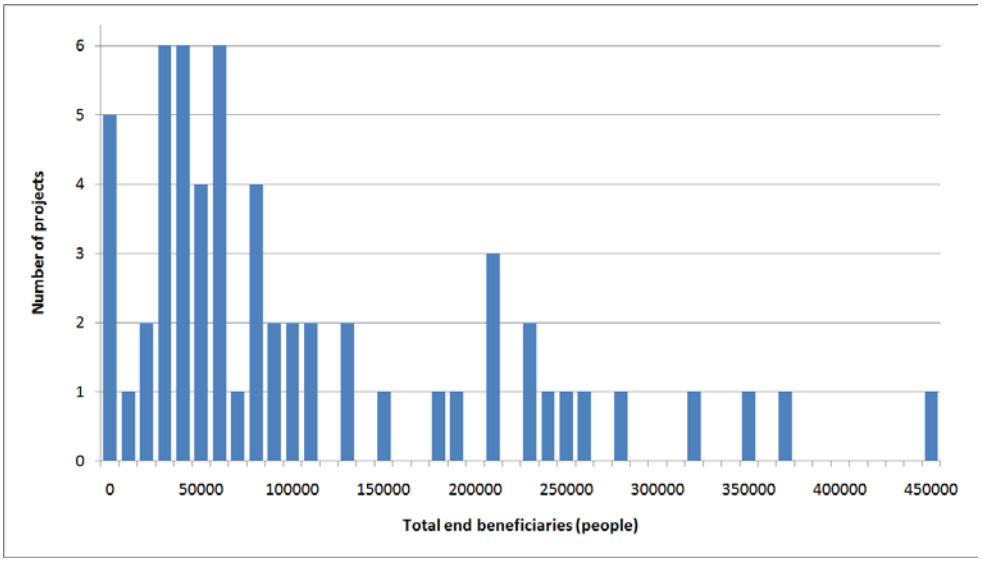


Figure 2.104: End beneficiaries of 2010 WF awarded projects.

When comparing rejected and awarded proposals, we found that the latter declared on average to target a lower number of beneficiaries for all types of activities (Figure 2.105). Since beneficiaries' numbers were in general very high, this finding may reflect that awarded projects declared more realistic numbers than rejected ones, rather than that priority was given to projects with fewer beneficiaries. However, the differences in this sense were not so remarkable.

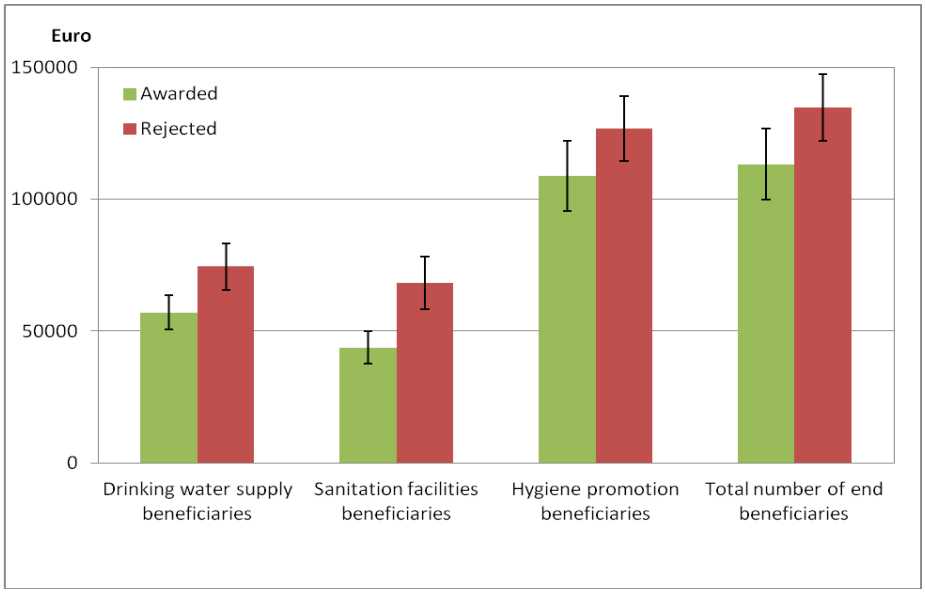


Figure 2.105: Number of beneficiaries for drinking water, sanitation, hygiene promotion and all activities for awarded and rejected proposals.
Average values and standard error of the mean are displayed.

As for cost per beneficiary for awarded projects, it ranged up to 208 € and was also quite spread, having most proposals values lower than 80 €/person (Figure 2.106).

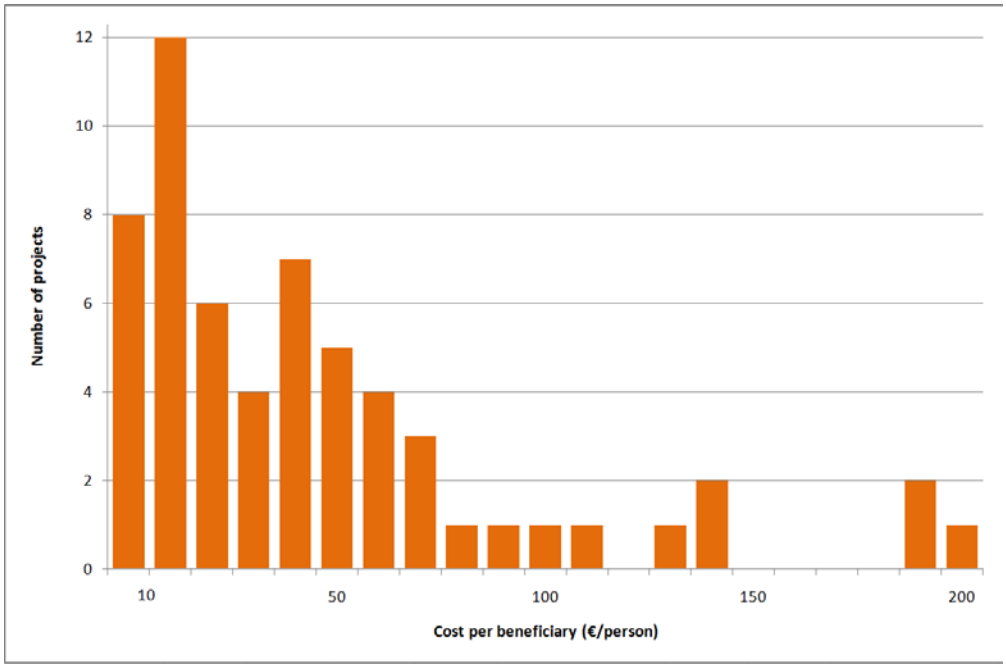


Figure 2.106: Cost/beneficiary distribution for 59 2010 WF awarded projects.

In this field, awarded proposals declared less than half the cost per beneficiary than rejected ones (Figure 2.107). For the case of awarded proposals the average value of cost per beneficiary was additionally a much more reliable indicator, since data on beneficiaries was not so spread as it was for rejected proposals, and the much smaller the standard error of the mean shows (Figure 2.107).

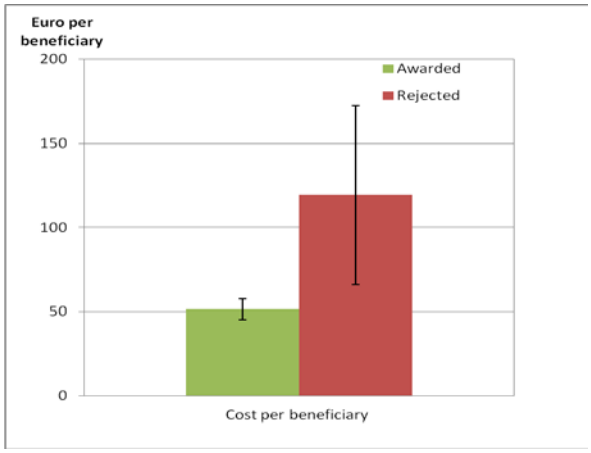


Figure 2.107: Cost/beneficiary for awarded and rejected proposals. Average values and standard error of the mean are displayed.

Values of this variable were mostly dependent on the number of beneficiaries and not on project costs, for awarded and rejected proposals alike, as figures 2.108 and 2.109 show.

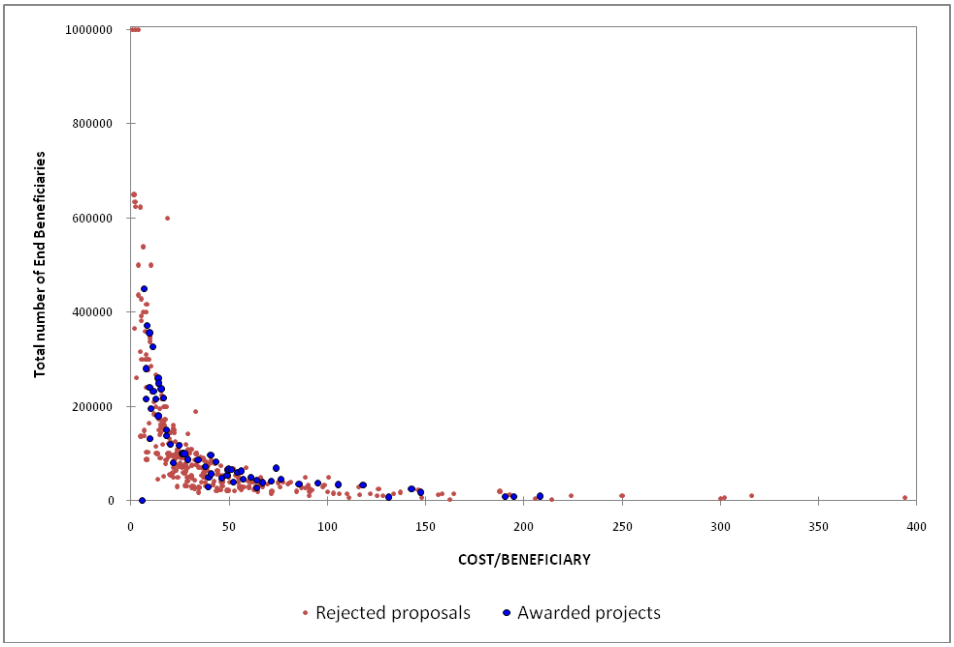


Figure 2.108: Cost/beneficiary vs. total number of en beneficiaries for awarded and rejected proposals.

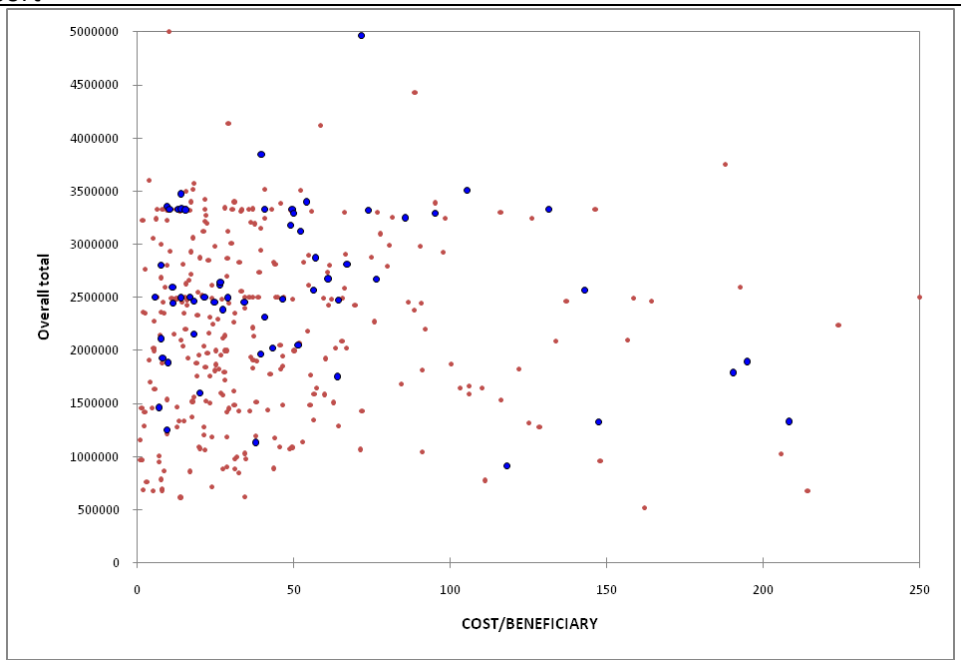


Figure 2.109: Cost/beneficiary vs. total project costs for awarded and rejected proposals.

2.2.5.9. Development indicators

Here we display the same set of development indicators analyzed for the whole 2010 WF call in section 2.2.3.9. Average values of the values at country level for all awarded or rejected proposals are shown, together with the standard error of their averages. We accompany this information with maps showing the values of these indicators at country level, and the location of the awarded projects. **All maps were produced with the Aquaknow online platform**. The reader should however bear in mind that values of these indicators do not always match to the year of the call (2010). Each one has a specific date, as detailed in Table 2.2 (section 2.2.2).

Firstly, regarding water services, awarded proposals were on average located in countries where coverage of population by improved water supply and sanitation, as well as households' water connection were relatively lower than for rejected proposals (Figure 2.110). This reflects the priority given to more needy countries in terms of water services by the selection procedure.

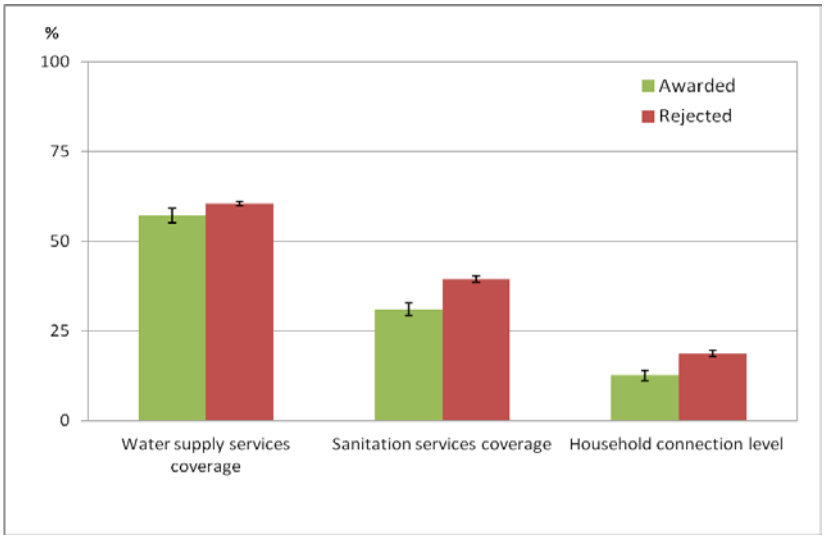


Figure 2.110: Indicators on water services for awarded and rejected proposals. Average values and standard error of the mean are displayed.

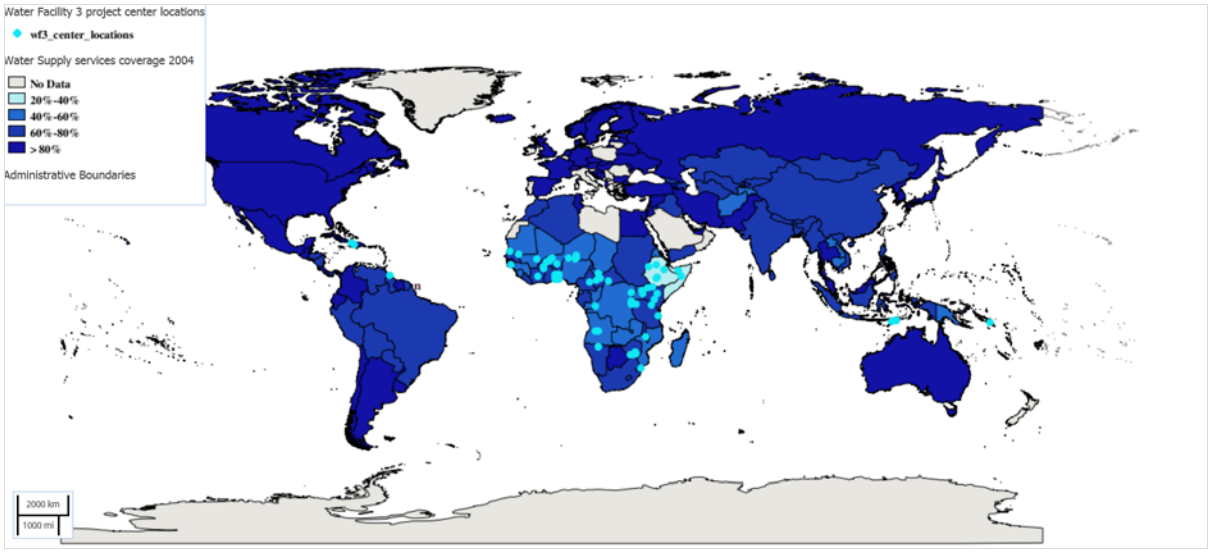


Figure 2.111: Location of projects awarded by the 2010 WF and water supply services coverage 2004.

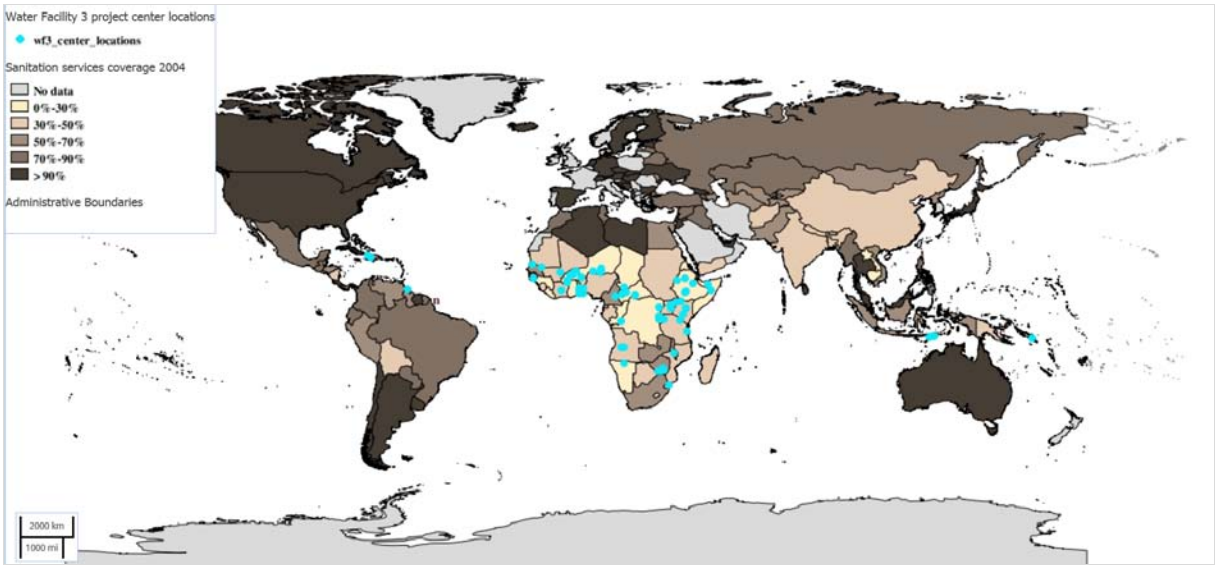


Figure 2.112: Location of projects awarded by the 2010 WF and sanitation services coverage 2004.

Awarded proposals in general terms targeted countries where GDP and HDI were also lower (Figure 2.113), particularly for the first indicator. This reflects again, that priority was given to projects in countries with lower socio-economic development. These two indicators had among the lowest values worldwide (figures 2.114 and 2.115).

Figure 2.113: GDP and HDI for awarded and rejected proposals. Average values and standard error of the mean are displayed.

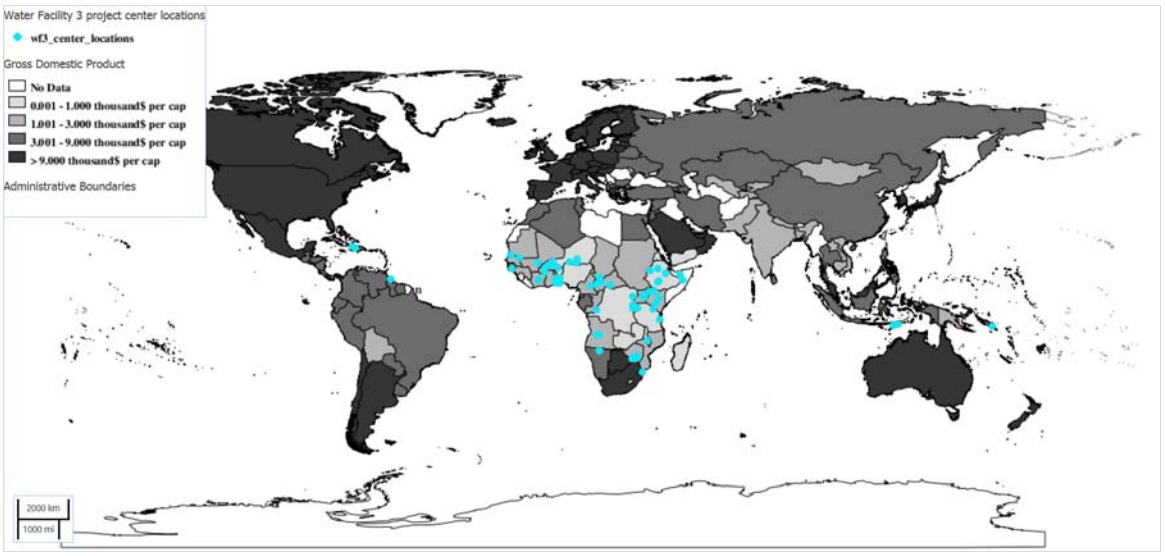


Figure 2.114: Location of projects awarded by the 2010 WF and Gross Domestic Product.

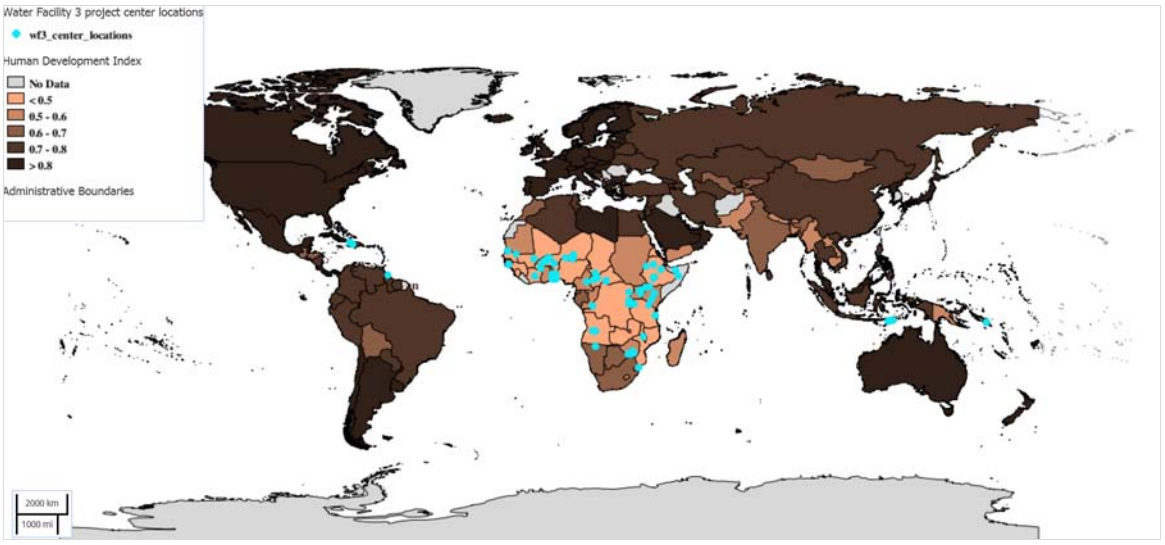


Figure 2.115: Location of projects awarded by the 2010 WF and Human development index.

Regarding health indicators potentially associated with the quality of water supply, sanitation and hygiene practices, no big differences were found for child mortality between awarded and rejected proposals. Furthermore, for the case of malaria, countries with lower prevalence were favored by the selection procedure (Figure 2.116).

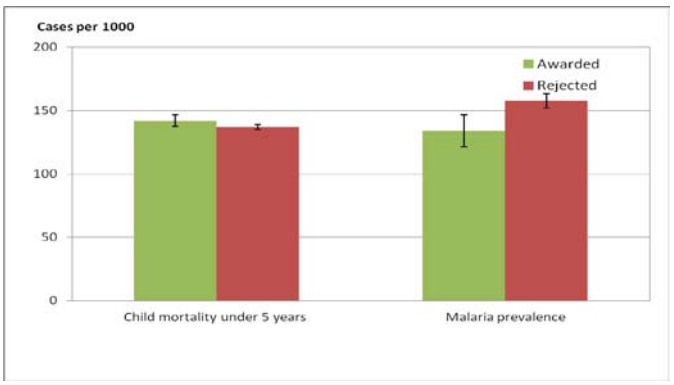


Figure 2.116: Child mortality and malaria prevalence for awarded and rejected proposals. Average values and standard error of the mean are displayed.

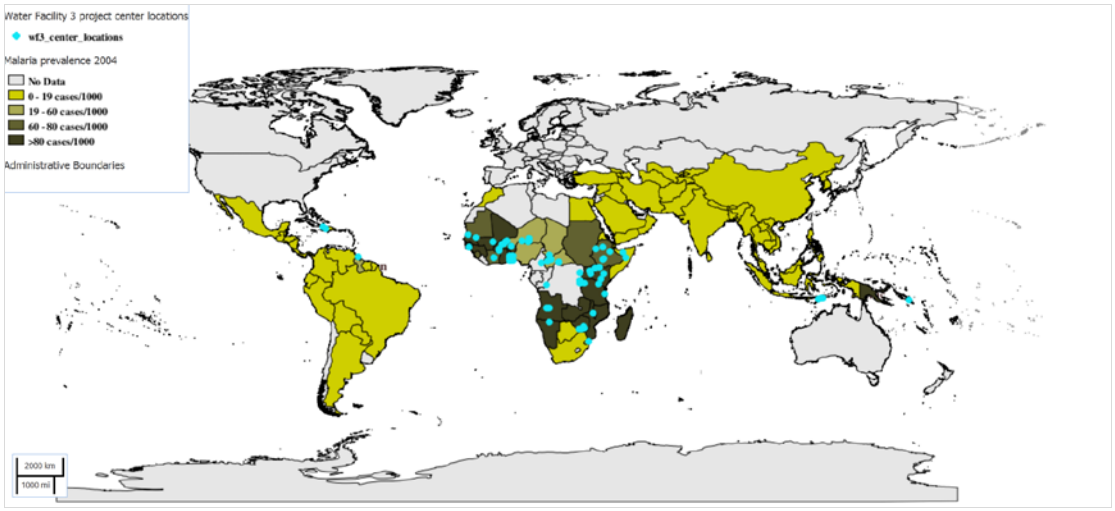


Figure 2.117: Location of projects awarded by the 2010 WF and malaria prevalence.

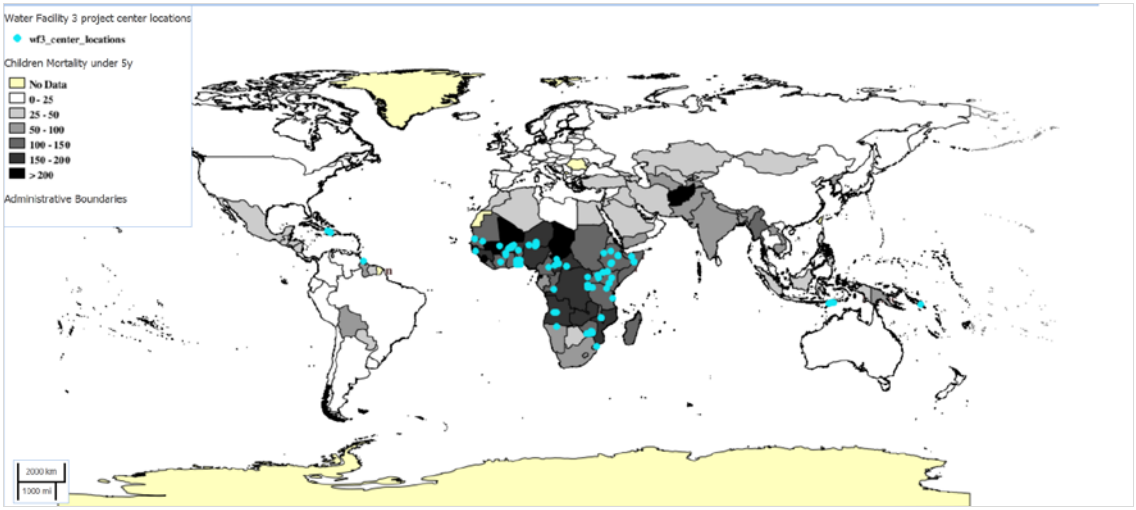


Figure 2.118: Location of projects awarded by the 2010 WF and child mortality under 5 years.

No big differences were found as well for the mean values of awarded and rejected proposals regarding the four development indicators displayed in the following figure (2.122). On average, awarded proposal were located in less developed countries: bigger proportions or urban population living in slums, lower children enrolment at school, and highest female economic activity rate. No significant differences were found between awarded and rejected proposals for the indicator *total water resources,* which is therefore not displayed here.

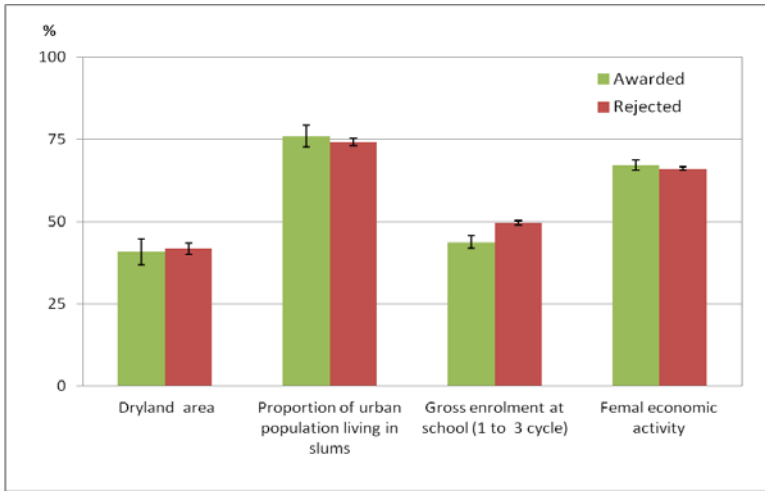


Figure 2.119: Socio-economy indicators for awarded and rejected proposals. Average values and standard error of the mean are displayed.

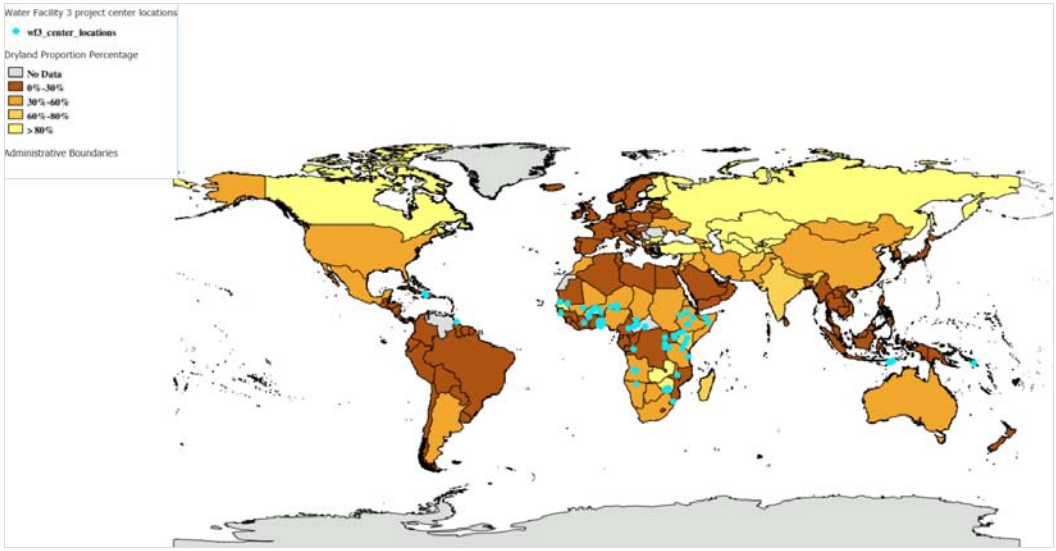


Figure 2.120: Location of projects awarded by the 2010 WF and dry land proportion percentage.

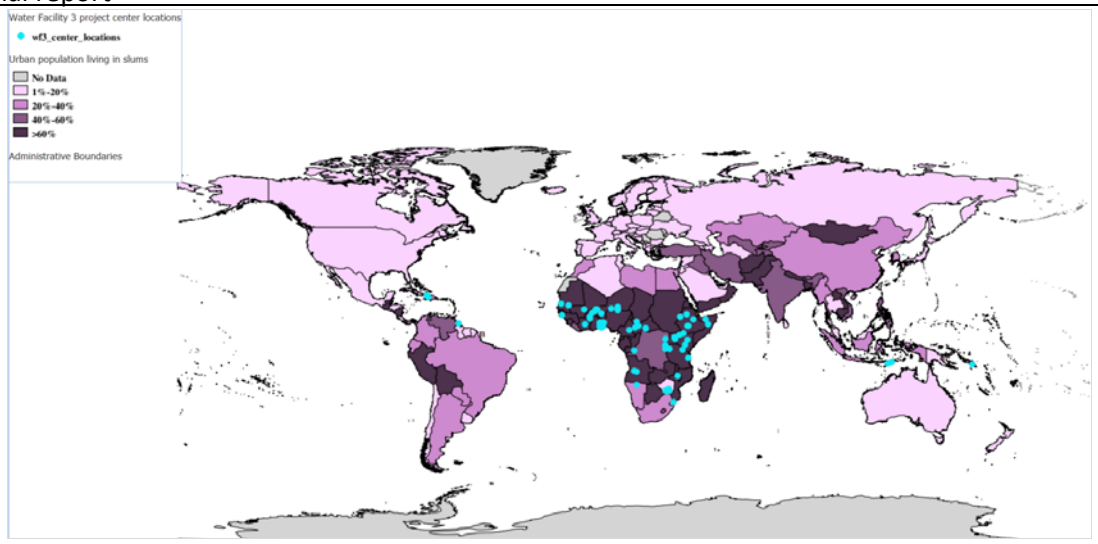


Figure 2.121: Location of projects awarded by the 2010 WF and urban population living in slums.

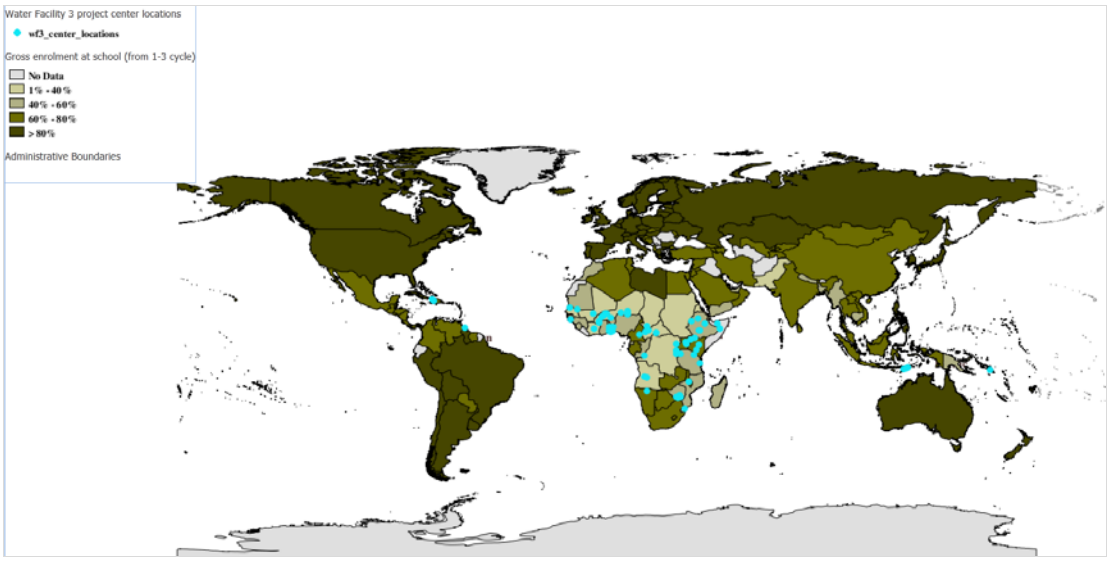


Figure 2.122: Location of projects awarded by the 2010 WF and gross enrolment at school (1st - 3rd cycle).

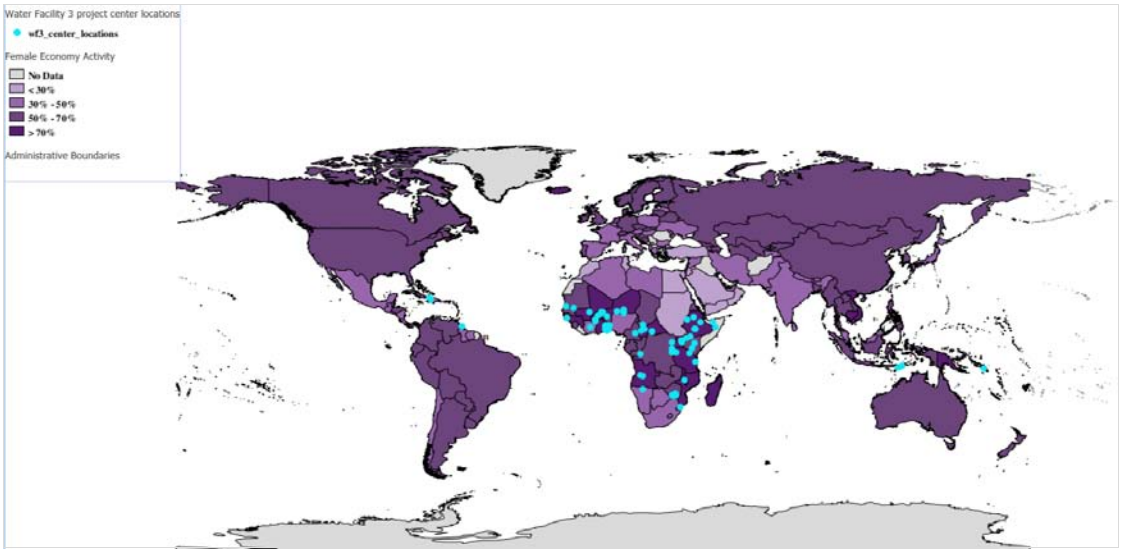


Figure 2.123: Location of projects awarded by the 2010 WF and female economic activity.

The difference found between population growth in the projects areas (Figure 2.124, *Average annual population growth*) and in rural areas at national level (Figure 2.124, variable in the middle) shows that applicants selected areas with higher population growth rates in general terms, probably due to the identification of more needy areas.

Regarding national values, awarded proposals were on average placed in countries with slightly higher urban and rural population growth rates (Figure 2.124 variables in the middle and to the right). The opposite was found for population growth rates in the concrete project areas, as declared by the applicants. In any case, the last variable is not very representative, since they were 198 out of 472 rejected proposals, for which local population growth rate was missing, and as the big standard deviation of the mean for rejected proposals shows (Figure 2.124). It is neither comparable with national population growth rates since it corresponds to an estimation (by the applicants) about population growth during the implementation of the project.

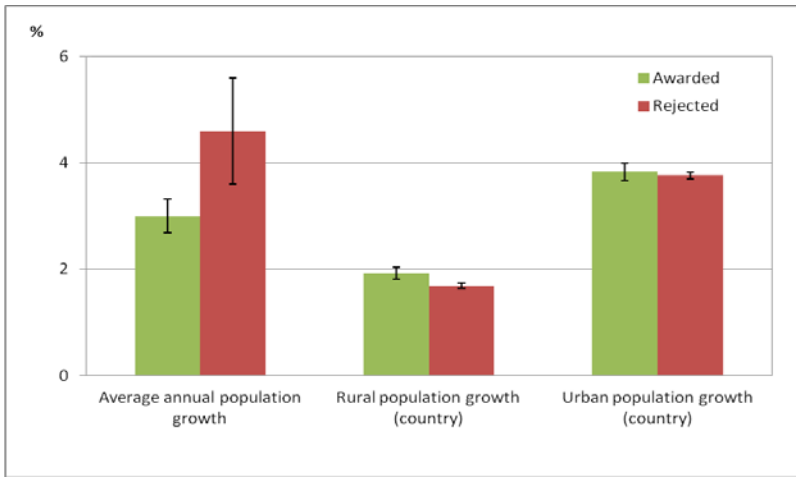


Figure 2.124: Socio-economy indicators for awarded and rejected proposals. Average values and standard error of the mean are displayed.

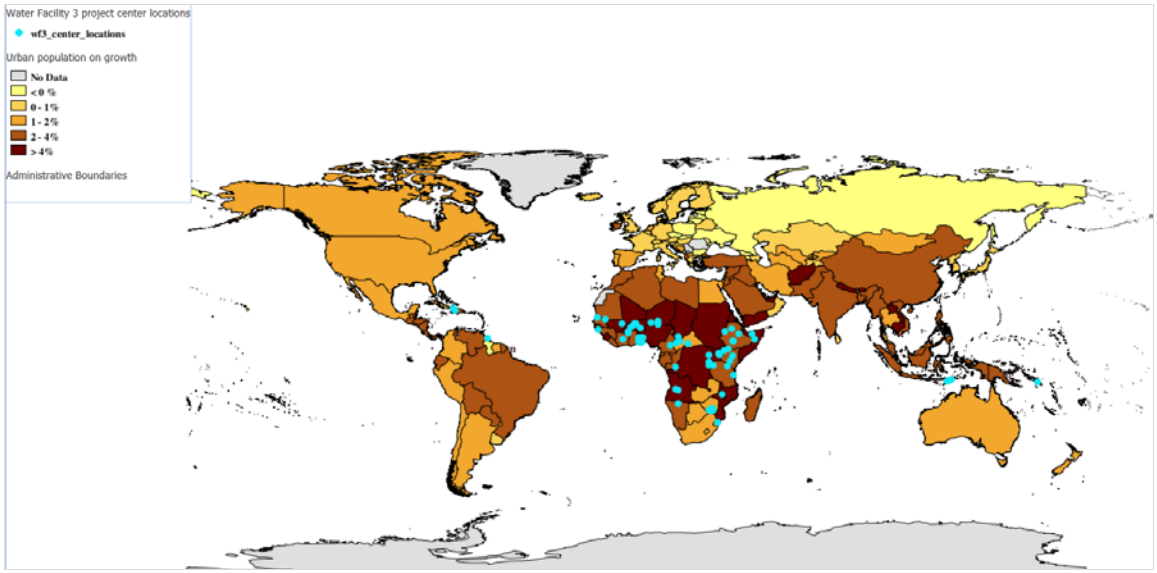


Figure 2.125: Location of projects awarded by the 2010 WF and urban population growth.

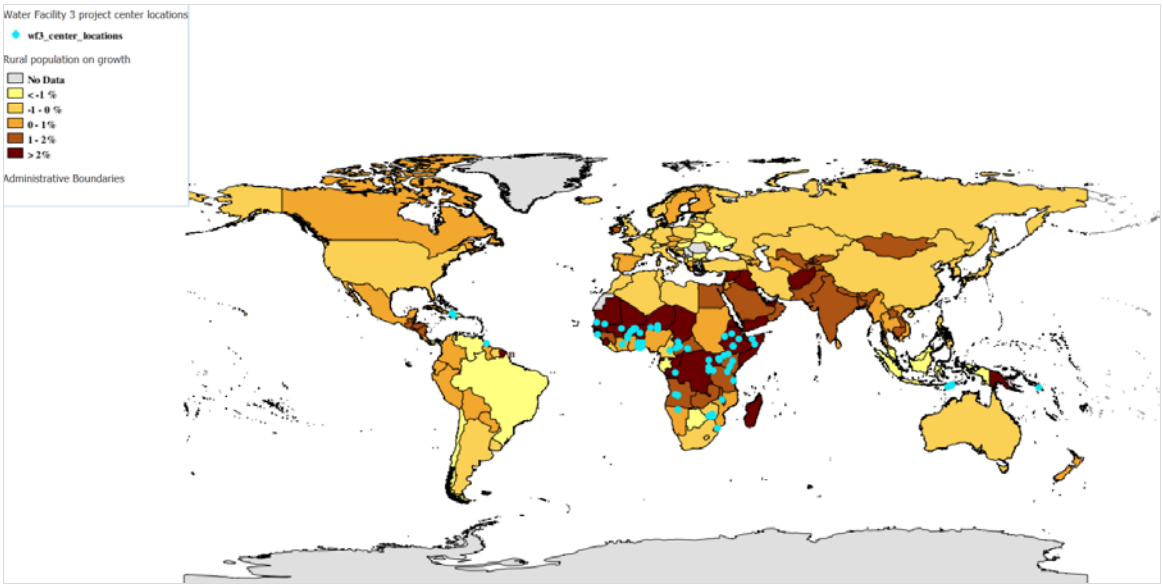


Figure 2.126: Location of projects awarded by the 2010 WF and rural population growth.

As for governance indicators, awarded proposals targeted countries with on average lower values for all indicators, particularly for the indicator *Rule of law*, which informs about the confidence of agents in the rules of society, including aspects that might determine the success of the projects such as the quality of contract enforcement, property rights and crime (Figure 2.127).

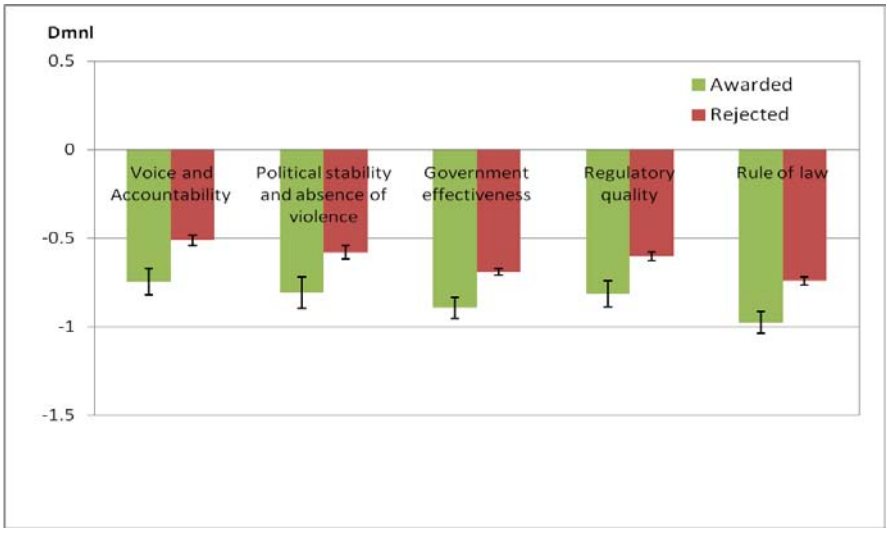


Figure 2.127: Governance indicators for awarded and rejected proposals.
Average values and standard error of the mean are displayed. Dmnl responds to "dimensionless"

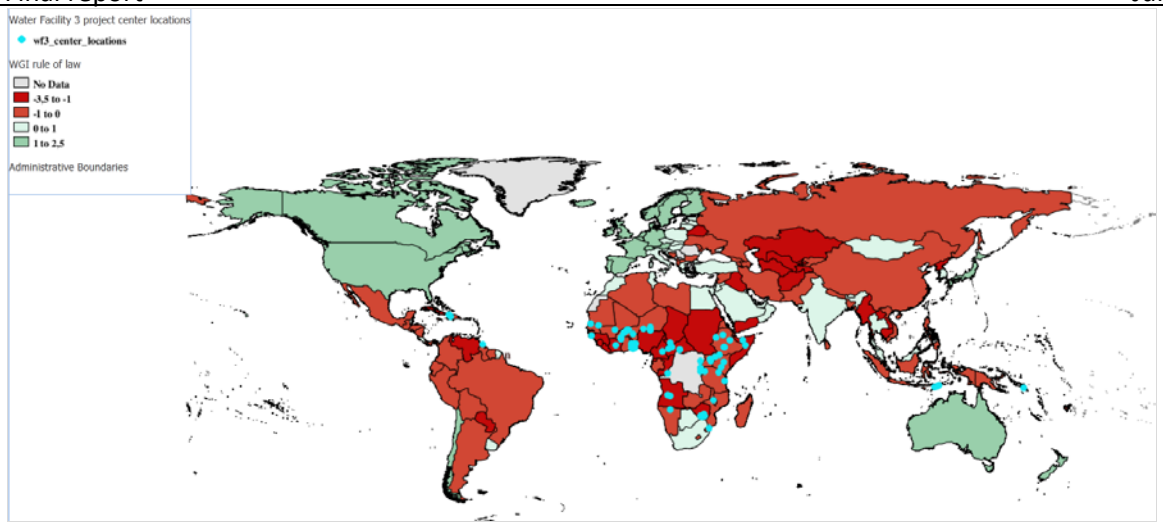


Figure 2.128: Location of projects awarded by the 2010 WF and WGI Rule of law indicator.

Finally, award targeted countries that receipt less Official Development Assistance (ODA) per capita on average, both for total aid and for water supply and sanitation aid (Figure 2.129).

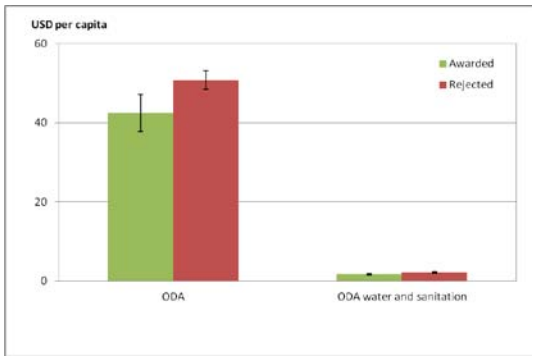


Figure 2.129: Official Development Assistance for awarded and rejected proposals. Average values and standard error of the mean are displayed.

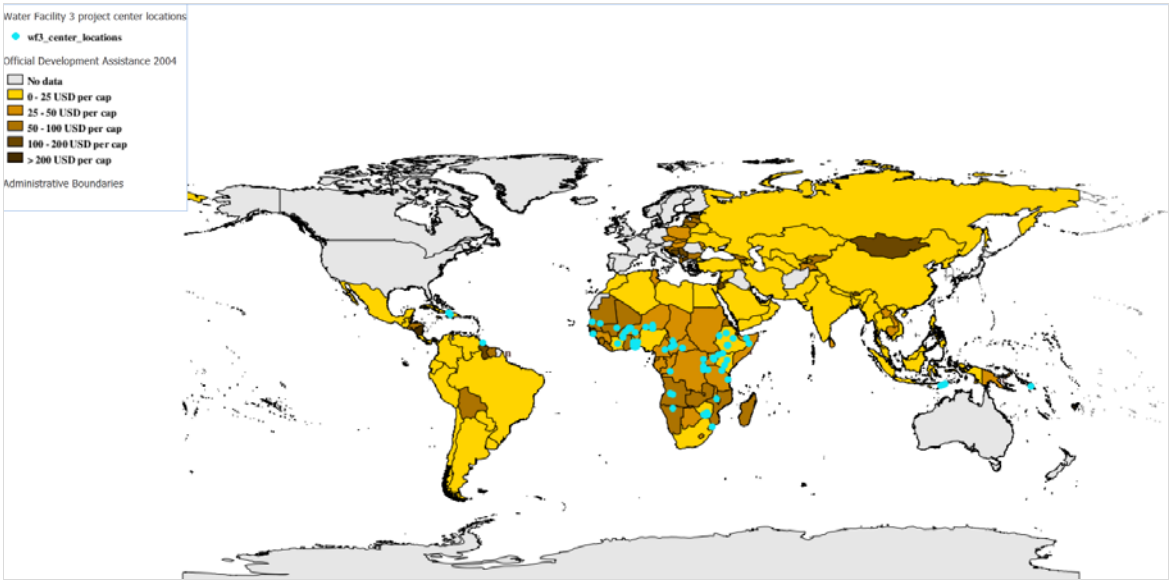


Figure 2.130: Location of projects awarded by the 2010 WF and Official Development Assistant (ODA).

2.2.6. Multivariate analysis

This approach will be useful for identifying the association between different variables including development indicators, proposals data and the eligibility status of the proposals.

To this aim we carry out here two types of analysis, both based in the correlation among variables, i.e. how the values of one variable vary referred to another variable. It may complement the comparison among awarded and rejected proposals based on the analysis of the frequencies (for categorical variables) and mean values (for quantitative variables). Here we implement a Multi-correspondence Analysis (MCA) for categorical variables and a Principal Components Analysis (PCA) for quantitative variables. In both analyses we include as well the eligibility of the proposals, i.e. if proposals were awarded or rejected, as supplementary variables. This means that we show the correlation among all variables and proposals eligibility but that this variable did not participate in the internal calculations of the analyses.

These multivariate analyses allow us to graphically represent the variables in a new dimensional space with new axes (uncorrelated factors also called components), where we can observe correlation among all variables. This transformation of data is done in a way that the first axis has as much variance as possible, i.e. it accounts for as much of the variability of the data as possible. The next axis will account again for the highest remaining variability and so on. Calculations of these new axes and location of variables in this new space is based in correlation for PCA (Pearson correlation coefficient in this case). For MCA is based on contingency tables, which are used to quantify the frequencies with which categories for different variables appear together in the observations (here the proposals).

For both types of analyses, two types of plots will be displayed:

- Screeplot, which shows the percentage of data variability in different axes (also called components). It is essential to assess how well the new representation of data mirrors data variability.
- Correlation plot, which shows the correlation of variables, referred to the new axes (components). In this plot, we can extract more robust conclusions about correlation of variables when they are located more far away from the centre of the plot; while correlation of variables situated in a centered position should be interpreted more carefully, since their association with the different components may not be so clear. For MCA this plot is denominated Symmetric variable plot.

The analyses presented here, due to their ability to identify correlation among variables, might help us identifying, according to the data, the underlying systematic logic in the selection procedure and in assessing its consistency regarding the call guidelines. However, it is very important to bear in mind that these analysis cannot be implemented if there are missing data. Therefore data had to be hardly prepared for the analysis. This included the deletion of many proposals and the imputation of missing data, as we explain in detail in section XX below. This may determine the results of both types of analysis. It is therefore crucial to improve data collection in order to achieve a trustworthy use of the results form data analysis.

2.2.6.1. Selecting the data for the analysis

The following variables were selected for the analysis (Table 2.121 for categorical variables used for the MCA; Table 2.13 for quantitative variables used for the PCA). They include mostly the subset of variables displayed in tables 2.1 and 2.2 (section 2.2.2), which included data from submissions (data encoded in the online database for the WF 2010 call) and a subset of the

development indicators displayed by the Aquaknow online platform. Variables on activities and number of beneficiaries variables were excluded, since data accuracy was not totally guaranteed and could introduce *noise* in the analyses. Finally, the number or non-local partners and associates were also excluded since, respectively, the information was not relevant to guidelines criteria and it included very heterogeneous ways contribution to the projects.

Group	Variable	Categories	Denomination in the symmetric variables plot
Applicant features	Legal status	NGO	App.Status-NGO
		Low level mangement	App.Status-Low level mangement
		Private interest institution	App.Status-Private interest institution
		High level management	App.Status-High level management
		University/Research/Education	App.Status-University/Research/Education
	Legal type	Private	App.Type-private
		Public	App.Type-public
	Region of origin	Europe	App.Reg.-Europe
		Rest	App.Reg.-Rest
		Western Africa	App.Reg.-Western Africa
		Non ACP International Organization	App.Reg.-Non ACP International Organisation
	Previous award	No	Aw.Before-no
		Both calls	Aw.Before-both calls
		Call 2	Aw.Before-call 2
		Call 1	Aw.Before-call 1
Project features	Project region	Eastern Africa Region	Pr.Reg.-Eastern Africa Region
		Western Africa Region	Pr.Reg.-Western Africa Region
		Central Africa Region	Pr.Reg.-Central Africa Region
		Caribbean Region	Pr.Reg.-Caribean Region
		Southern Africa Region	Pr.Reg.-Southern Africa Region
		Pacific Region	Pr.Reg.-Pacific Region
	Duration	Medium	Durat.-Medium
		Long	Durat.-Long
	Local Partner Status	Local aut	Loc.Part.Status-local aut
		Nonstate	Loc.Part.Status-nonstate
		Both	Loc.Part.Status-both

Table 2.12: Categorical variables and their categories used for the MCA.

Group	Variable	Denomination in the correlation plot
Project actors	Local partners	Loc.Part
	Co-donors	Co-don.
Application funding request	Applications	Applicat.
	EC Funding	EC.Funding
	Applicant financial contribution	Applic.Contr.
Budget allocation	Water budget as % of TDEC	*Drink.Budget*
	Sanitation budget as % of TDEC	*Sanit.Budget*
	Hygiene promotion budget as % of TDEC	*Hyg.Budget*
	Overall cost per beneficiary (euro/beneficiary)	Cost/Benef.
Water services (local), water services improvement (local) and local population growth	Drinking water coverage	Drink.Cover.
	Change water coverage	Change.Drink.Cover.
	Sanitation coverage	Sanit.Cover
	Change sanitation coverage	Change.Sanit.Cover.
Socio-economy	GDP	GDP-PPP
	HDI	HDI
	Child mortality under 5 years	Child.Mort.
	Average annual population growth	*Project.Pop.Growth*
	Rural population growth-national	Rur.Pop.Grow.
	Urban population growth-national	Urb.Pop.Grow.
	Malaria prevalence	Malaria
	Gross enrolment at school (1 to 3 cycle)	Enrol.School
	Female economic activity	Fem.Act
	Proportion of urban population living in slums	Slums
Worldwide Governance Indicators	Voice and Accountability	WGI.Voice
	Political stability and absence of violence	WGI.Polit.Stability
	Government effectiveness	WGI.Gov.Effect.
	Regulatory quality	WGI.Regul.
	Rule of law	WGI.RuleLaw
Water indicators (national)	Water supply services coverage	Drink.Cover.
	Sanitation services coverage	Sanit.Cover.
	Household connection level	Hous.Connect.
	Water poverty index	W.Pov.
	Dryland area	Dryland
	Total water resources	Wat.Res
Development aid	ODA	ODA
	ODA water and sanitation	ODA-Water

Table 2.13: Quantitative variables used for the PCA.

2.2.6.2. Preparing the data for the analysis

DATA SELECTION

A big share of data was missing for three reasons: i) lacking data in the submitted annexes F; ii) absence of annexes F: the JRC team did not receive this information from DEVCO for a total of 160 proposals; iii) development indicators values were available for some countries. For the 160 proposals for which Annex F lacked, only categorical variables were available. This data lacking obliged us to apply the following data cleaning to the available data (539 proposals):

- Deletion of proposals lacking almost all proposals data (13-16 out of 21 variables). This resulted in the deletion of 169 proposals.
- Deletion of proposals lacking almost all development indicators data (10-17 out of 23 variables). This resulted in the deletion of 5 proposals.

This data cleaning resulted in the deletion of a total of 174 proposals. Therefore, 365 out of 539 proposals were used for the implementation of the multivariate analysis. It is a remarkable fact that 11 of the proposals that were deleted due to very important lacks of data were awarded proposals.

PROPOSALS DELETION BIAS ASSESSSMENT

It is important to assess the possible bias of the analysis to be implemented due to the above described deletion of proposals. To this aim, compared data from deleted and selected proposals. In general terms, regarding categorical variables, deleted proposals showed higher frequencies of rejection, more applicants with an origin different than Europe or non ACP international; more projects in the Caribbean; less award in both previous calls; and less ONGs or institutions working at international management level. Only proposals with non state local partners were deleted. Regarding quantitative variables, proposals deleted due to lacking data had fewer co-donors, less funding request, higher cost/beneficiary and higher governance values. These features are closer to the profile of rejected proposals, as describes in section 2.2.5. Therefore results might have some bias towards better representing awarded proposals data than would be the average.

DATA IMPUTATION

365 proposals were selected for the analysis. For this dataset, still some data was missing: between 0 and 9 variables of proposals information; and between 0 and 8 development indicators values. This resulted in between 0 and 14 variables lacking if we consider together both types of information.

For this reason, data imputation has to be implemented previous to analyses development. This consisted of replacing missing values by the mode for categorical variables; and replacing missing values by the median value for quantitative variables. Both median and mode were calculated for the whole proposals dataset, i.e. previously to the deletion of proposals, in order to obtain the most accurate values of these statistics. In table 2.14 (for categorical variables) and 2.15 (for quantitative variables) details on missing data and the value/category imputed for these missing data are given.

Group	Variable	Missing data	Mode (for imputed data)
Applicant features	Legal status	0	NGO
	Legal type	5	Private
	Region of origin	0	Europe
	Previous award	0	No
Project features	Project region	0	Western Africa Region
	Duration	0	Medium
	Local Partner Status	26	Nonstate

Table 2.14: Categorical variables, missing data and imputed data for the MCA.

Group	Variable	Missing data	Median (for imputed data)
Project actors	Local partners	0	1
	Co-donors	0	0
Application funding request	Applications	0	1
	EC Funding	3	1742875.96
	Applicant financial contribution	0	412014.50
Budget allocation	Water budget as % of TDEC	54	0.57
	Sanitation budget as % of TDEC	83	0.19
	Hygiene promotion budget as % of TDEC	63	0.17
	Overall cost per beneficiary	5	31.00
Water services (local), water services improvement (local) and local population growth	Drinking water coverage	69	0.35
	Change water coverage	84	0.26
	Sanitation coverage	77	0.14
	Change sanitation coverage	84	0.22
Socio-economy	GDP	12	1.03
	HDI	10	0.47
	Child mortality under 5 years	0	127.00
	Average annual population growth	40	0.03
	Rural population growth-national	3	1.90
	Urban population growth-national	3	3.80
	Malaria prevalence	53	114.51
	Gross enrolment at school (1 to 3 cycle)	17	50.70
	Female economic activity	12	69.10
	Proportion of urban population living in slums	5	76.50
Worldwide Governance Indicators	Voice and Accountability	25	-0.40
	Political stability and absence of violence	25	-0.50
	Government effectiveness	25	-0.70
	Regulatory quality	25	-0.50
	Rule of law	25	-0.69
Water indicators (national)	Water supply services coverage	3	61.00
	Sanitation services coverage	3	42.00
	Household connection level	7	11.00
	Water poverty index	14	45.00
	Dryland area	15	43.00
	Total water resources	4	2566.65
Development aid	ODA	2	44.38
	ODA water and sanitation	5	1.50

Table 2.15: Quantitative variables, missing data and imputed data for the PCA.

2.2.6.3. Analysis implementation

Multi Correspondence Analysis (MCA)

The results of the analysis depict around of 76% of categorical data variability in three axes (Figure 2.131). Most variability of this data (54.8%) corresponds to the first (x) axis, and then to the second (y) axis (13.5%). The location of the different categories referred to these axes will give us an idea of the correlation between the categories, i.e. when their values vary together.

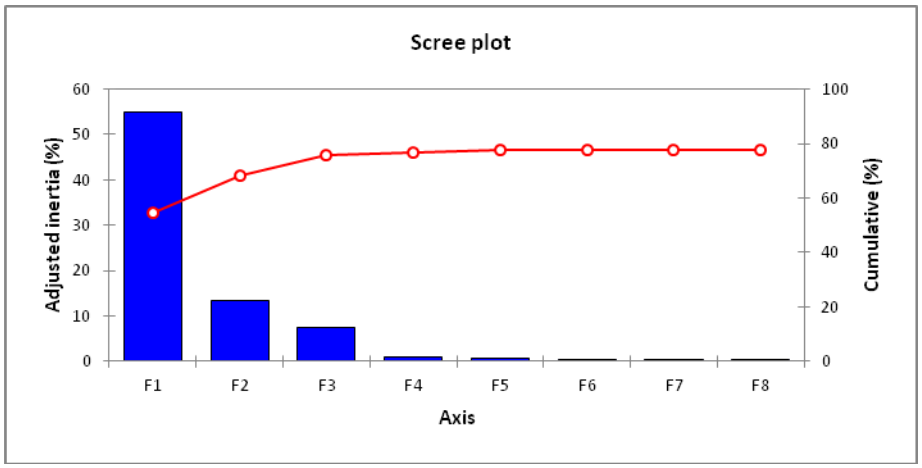


Figure 2.131: Screeplot of the MCA implemented with the categorical variables.

The main findings derived this analysis, which reorganizes variables along the new axes (Figure 2.132), regard the correlation among variables categories and their correlation with the eligibility status of the proposals. They are as follows:

- Positive correlation between applicants belonging to a non ACP international organization, legal status of high level management institution, public institutions, and projects to be implemented in the Pacific. This set of categories appears very far away from the category eligibility-awarded.
- Positive correlation of applicants from Europe; being private institutions, particularly NGOs; awarded previously by either the 1st or the 2nd call; with long duration projects; and Eastern Africa as project region. This set of categories appears very close from the category eligibility-awarded.
- Positive correlation between university/research institutions and applicants with a low level management legal status and belonging to the applicant region category *Rest* (neither Europe nor Western Africa or non ACP international) appear very distant to the category eligibility-awarded.

Most of these results coincide with the results of the analysis of relative frequencies of categorical variables for both awarded and rejected proposals (section 2.2.5). In some case they slightly differ, since we should always bear in mind that: i) not all the variability is represented by these graphical representation, and ii) here we display correlation between each pair of variables and not total frequencies, which may have hidden many variables associations.

However, results of correlation between categories and the eligibility status should be read carefully, since the latter are located in a very centric part of the plot, particularly for the case of eligibility-rejected. Therefore, they association to each one of the axes is not so clearly determined.

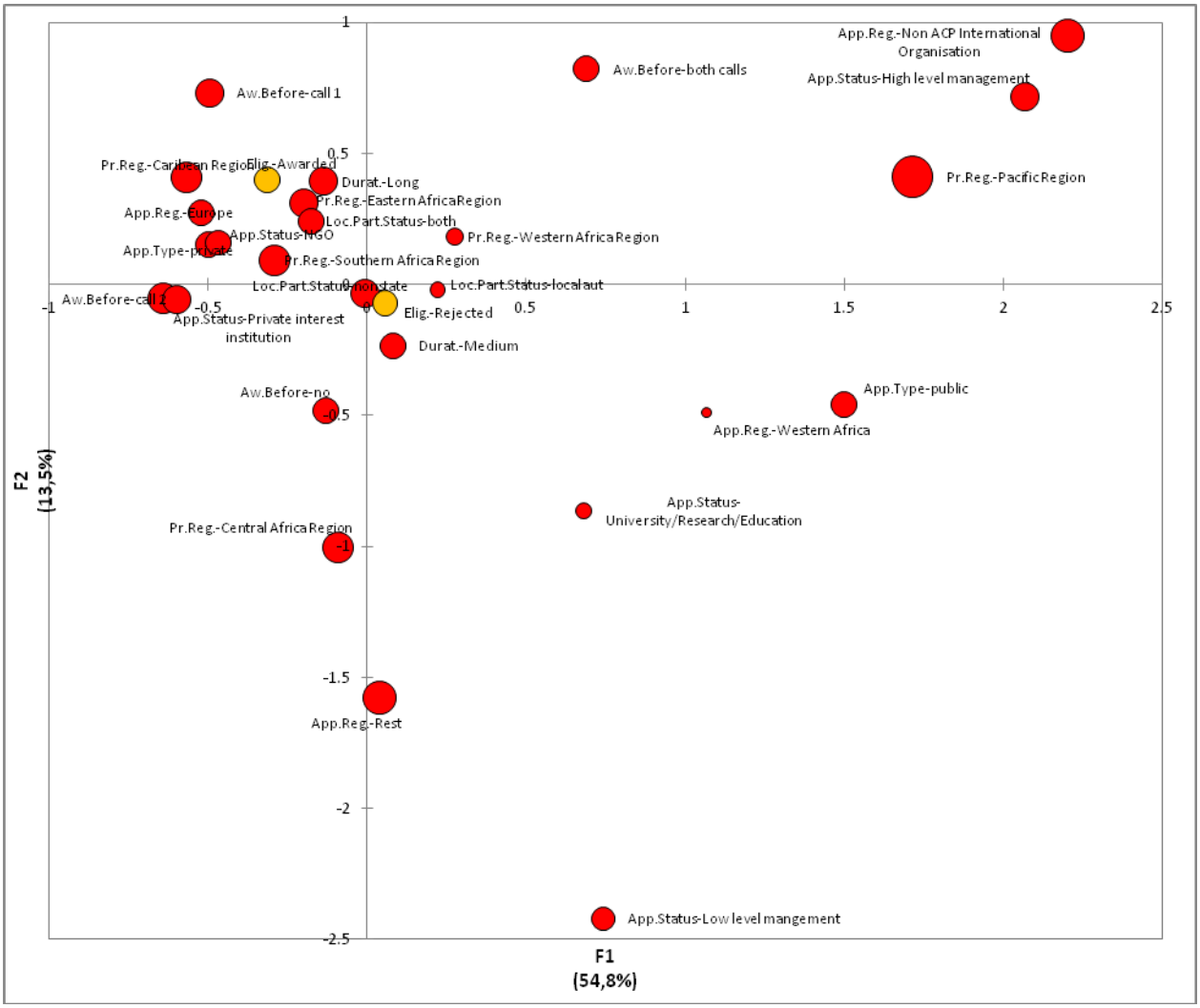


Figure 2.132: Symmetric variables plot of the MCA.
Here, categories are located in a new 3 dimensions space, and correlation between them can be identified. The x and y axes corresponds to the first and second components. Information referring to the third components is given by the size of the points. Eligibility categories are displayed in orange. The whole name of variables is displayed in Table 2.12.

Principal Components Analysis (PCA)

The results of this analysis are not as clear as the implemented for categorical variables (MCA above), since data variability appears more distributed in the different axes (Figure 2.133), with only around 37.6% of quantitative data variability contained in the first three axes. Most of the variability of data (17.6%) corresponds to the first (x) axis, followed by the second (y) axis (14%).

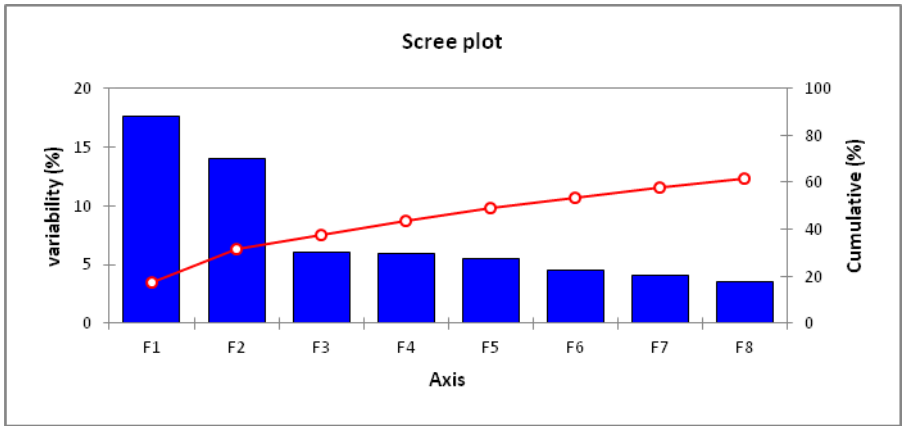


Figure 2.133: Screeplot of the PCA with the quantitative variables.

The main findings of this analysis are (Figure 2.134):

- Positive correlation between all governance indicators and between them and official development assistance receipt. These variables are at the same time negatively correlated with three variables related to projects: applicant financial contribution, number of applications per applicant and budget allocated to hygiene promotion activities. The first set of indicators is closer to the category eligibility-rejected, while the second subset is closer to eligibility-awarded.
- Positive correlation of water services (household connection, and drinking water and sanitation coverages), children enrolment at school, GDP, HDI and Water Poverty Index. These indicators were also positively correlated to the share of project budget allocated to sanitation and cost/beneficiary. All these variables were at the same time negatively correlated to population growth (both rural and urban), and indicators whose high values determine a worse development situation: population living in slums, child mortality, female economic activity and share of project budget allocated to drinking water supply. The first set of indicators is closer the category eligibility-rejected, while the second subset is closer to eligibility-awarded.

Most of these results coincide with the comparison of the average values for quantitative variables between awarded and rejected proposals (section 2.2.5). In some case they slightly differ, since the we have to always bear in mind that i) not all the variability is represented here and ii) here we represent correlation between each pair of variables and not average values of variables, which may have hidden many correlations.

However, results on correlation between variables and eligibility categories should be read carefully, since the latter are located in a very centric part of the plot. Therefore, they association to each one of the axes is not so clearly determined, especially regarding the first (x) axis. This turns even more important for this analysis, since the percentage of variability represented by the first two axes is much lower than in the previous analysis for categorical variables (MCA). Due to the same reason, we do not comment on the correlation between all variables but only on the ones situated in more determined position regard to the axes.

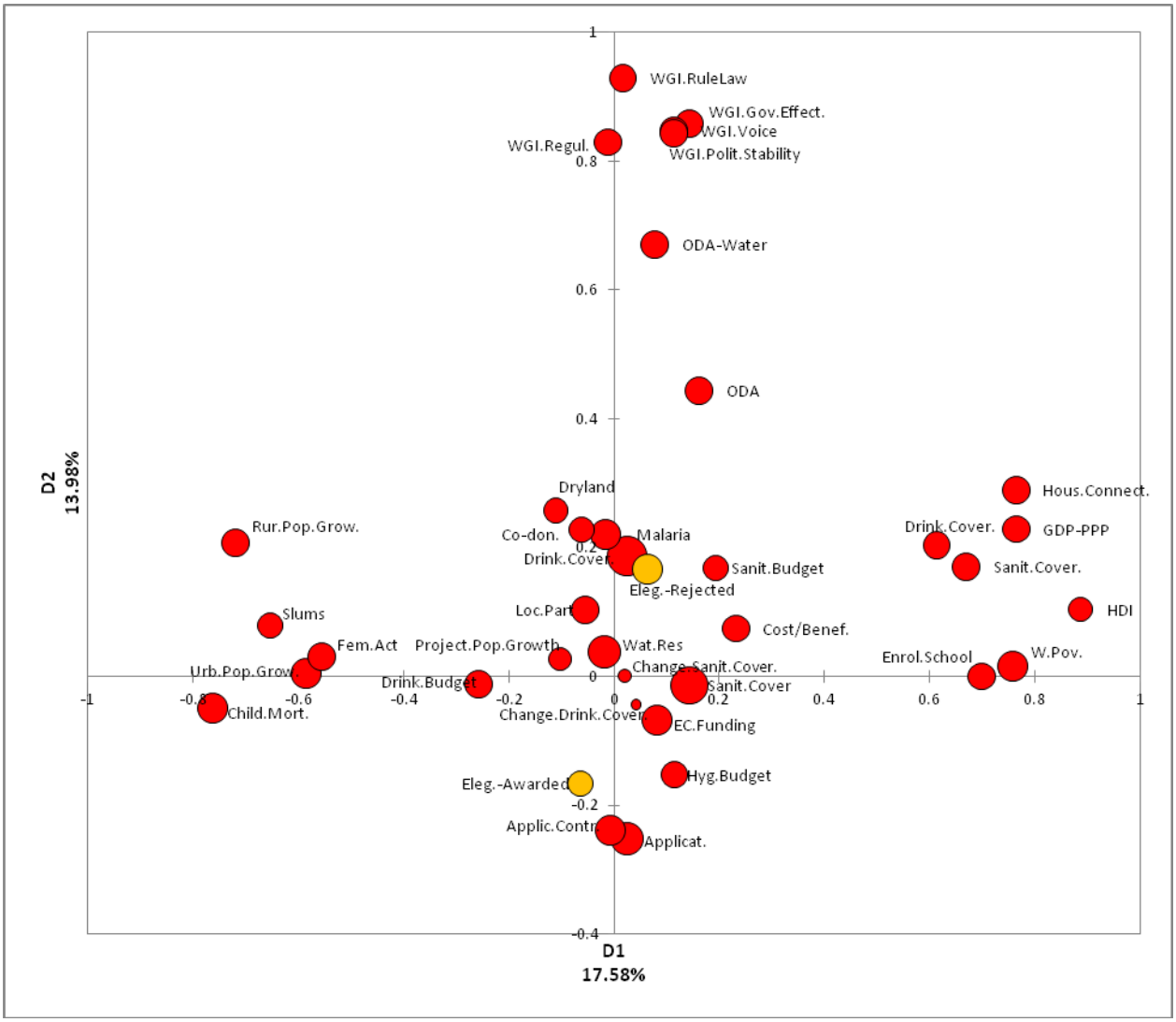


Figure 2.134: Correlation plot of the PCA.
Here, variables (red points) are located in a new 3 dimensions space, and correlation between them can be identified. The x and y axes corresponds to the first and second components. Information referring to the third components is given by the size of the points. Eligibility categories are displayed in orange. The whole name of variables is displayed in Table 2.13.

2.2.6.4. Multivariate analysis conclusions

Results of PCA should be read carefully since, as above mentioned, the percentage of the variability contained in the first axes was relatively low, while MCA results were higher. Additionally, the proposals deletion and data imputation processes explained before should be taken into account always when drawing conclusions from the analyses. The uncertainty of the correlation between variables and the eligibility status might be also considered, particularly for the rejected status for the MCA analysis and for information associated with x axis for PCA.

Keeping all this in mind, our results evidenced:

- The following applicant features were favoured in the award process: origin in Europe, private institutions, particularly NGOs, institutions awarded before in either the 1st or the 2nd call. Also long duration projects, and projects to be implemented in Eastern Africa

were more positively correlated to eligibility-awarded. On the contrary, university/research institutions and applicants with a low level management legal status and belonging to the applicant region category *Rest* appear distant from the category eligibility-awarded.

- In general terms, countries with lower values of development indicators were favoured by the award process. The clearest relationships were for governance indicators, water services and socio-economic indicators (GDP, HDI, etc).
- Countries receiving less ODA were also favoured, and so were proposals from applicants that were contributing with more funding to their projects and that were submitting more than one proposal.

2.3. Cross-calls analysis

Since 2004, three calls for proposal were launched by the Water Facility, with a total of 241 projects funded. As has been demonstrated in the preceding sections, the online database offers useful tools for analyzing the project data from different viewpoints. In this section we present some cross-call analyses that were feasible with the data available. As the reader will notice, the analysis here are much simpler and constraint due to data availability and the variation in data collection formats for the different calls. Additionally, cleaned data of rejected proposals for the 1st and 2nd call was lacking, which made impossible to analyze differences between awarded and rejected proposals for these two previous calls.

All maps shown here were produced using the Aquaknow online platform.

Analyses displayed here were done with data only from AWARDED PROPOSALS from the three WF calls (2004, 2006 and 2010)

The first thing that can be noticed is that, since 2004, the total number of awarded projects, as well as EC funding, total projects costs and applicants total financial contribution, have continuously decreased (Table 2.16). In the following we show how different fields evolved along the three WF CfPs: geographical distribution, funding, applicant's profile, beneficiaries, etc.

	Call 1 (2004)	Call 2 (2006)	Call 3 (2010)
Number of awarded projects	96 projects	78 projects	67 projects
Total projects cost	393.6 M €	317.8 M €	177.2 M €
Total EC funding request	225 M €	186.7 M €	129.5 M €
Total applicants financial contribution	76.7 M €	43.7 M €	33.5 M €
Total number of beneficiaries	10.4 M people	6.7 M people	6.7 M people

Table 2.16: Overview of number of WF awarded proposals and their funding between 2004 and 2010.

2.3.1.1. Project location

The profile of awarded proposals for the three calls was quite homogeneous regarding project location, but it showed also some differences: the share of projects in Central and Western Africa and Pacific increased from year 2004 (Figure 2.135), while the opposite occurred for Eastern Africa projects and multiregion projects, which totally dissapeared in the last call.

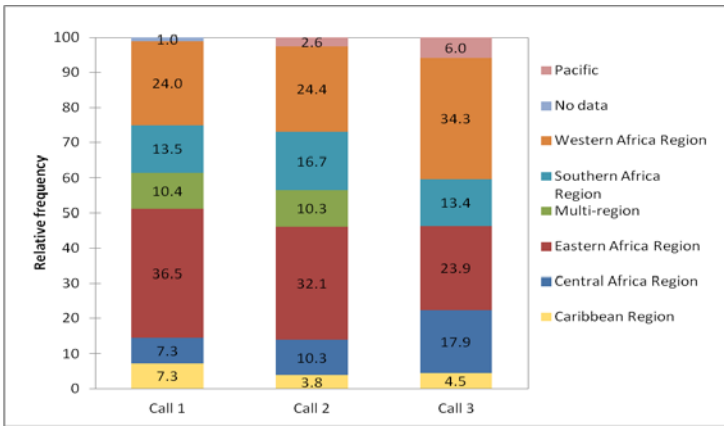


Figure 2.135: Projects regions for the three WF calls (relative frequencies).

The percentage of projects by call varied among regions. For instance, the 3rd call was the most relevant in terms of projects number in Pacific and Eastern Africa; while the 2nd was for Central Africa (Figure 2.136).

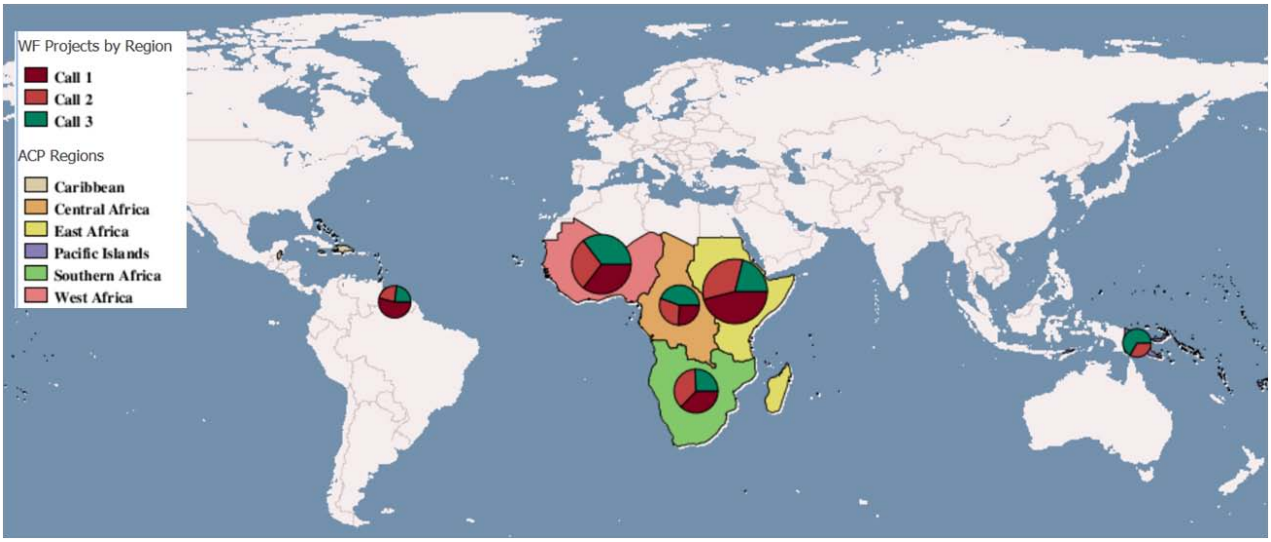


Figure 2.136: Share of awarded projects EC funding by ACP region and by WF call.

At country level, we display awarded projects location for the three calls in figures 2.137-2.139. As above mentioned, most projects concentrate on Western and Eastern Africa countries for the three calls.

Figure 2.137: Awarded projects by country for the 2004 WF call.

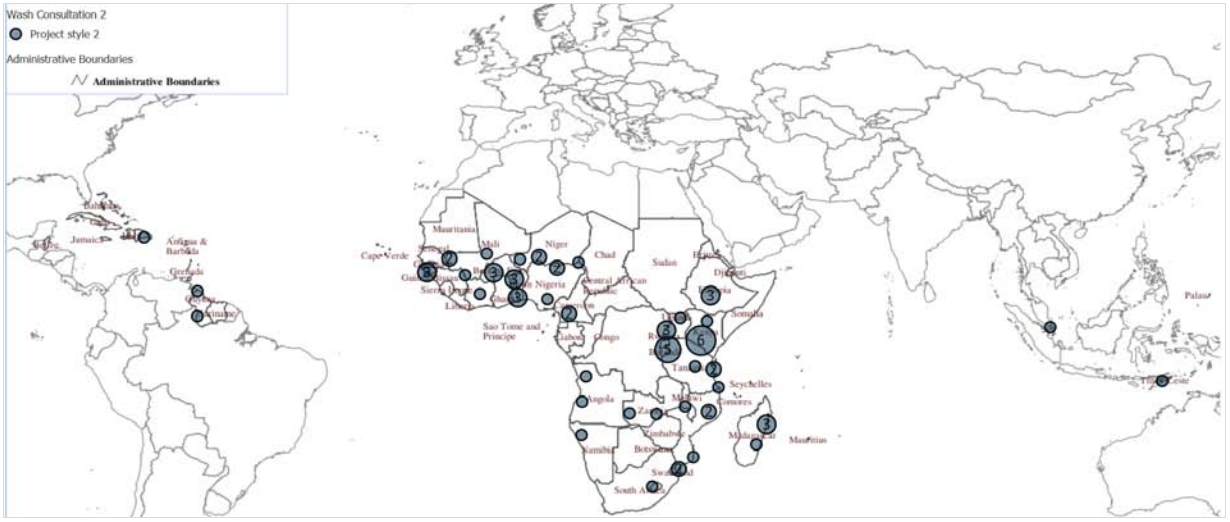


Figure 2.138: Awarded projects by country for the 2006 WF call.

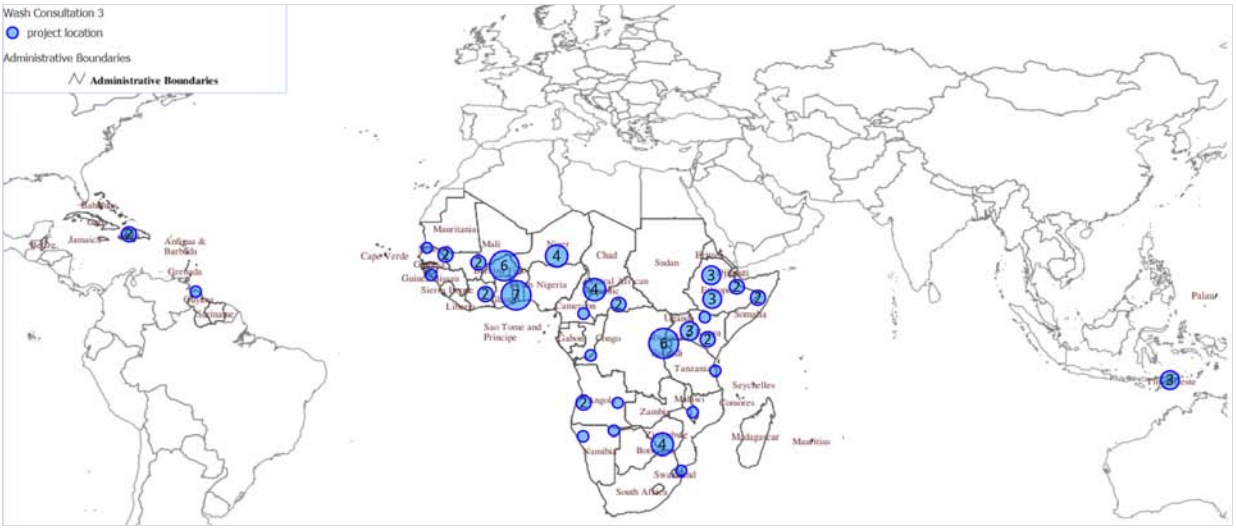


Figure 2.139: Awarded projects by country for the 2010 WF call.

2.3.1.2. Applicants characteristics

There was a great simplification of the applicant profile regarding region of origin (Figure 2.140) and legal status (Figure 2.141) from the 1st till the 3rd call. Only proposals submitted by European, Western African and Southern African applicants were awarded in the last call, while up to 8 different origins were awarded in the previous calls.

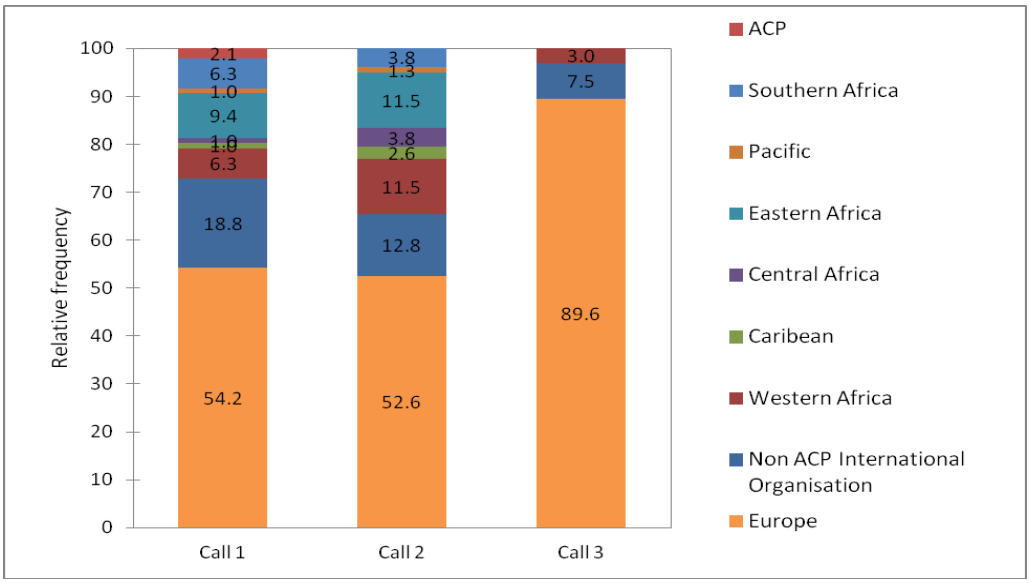


Figure 2.140: Awarded projects by region of origin for the three WF calls (relative frequencies).

Similarly to region of origin, legal status of awarded applicants was extremely simplified: from 10-11 types of applicants in the first two calls to only 4 for the last one (Figure 2.141).

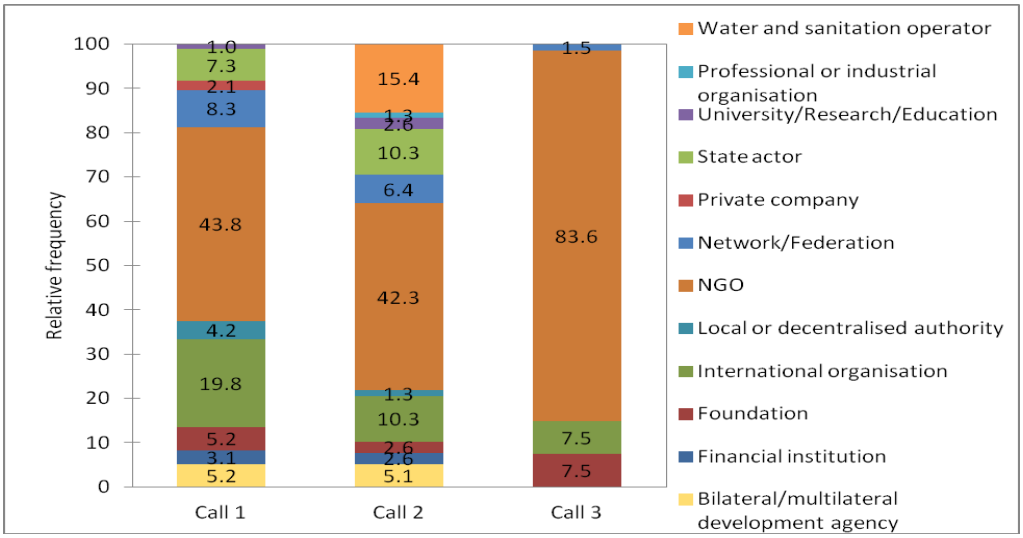


Figure 2.141: Awarded projects by applicant legal status for the three WF calls (relative frequencies).

As for legal type, the share of private applicants was always increasing since 2004 (from 37% in 2004 to more than 92% in year 2010) (Figure 2.142).

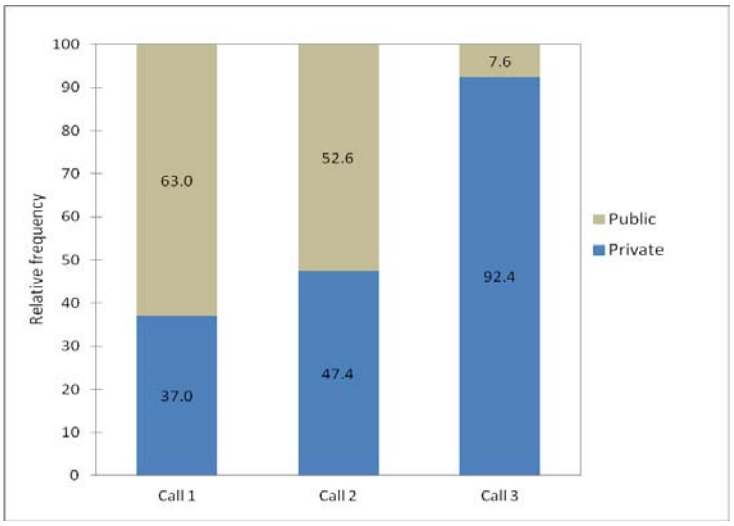


Figure 2.142: Awarded projects by applicant legal type for the three WF calls (relative frequencies).

Involvements of different actor types quite changed among calls as well. Thus, number of local partner was on average higher for the last two calls than for the first one, while the opposite occurred for non local partners (Figure 2.143). Data on co-donors and associates, although also displayed in the figure below, might not be comparable among calls, since *associates* was a category only present for the last call, which might have modified co-donors classification.

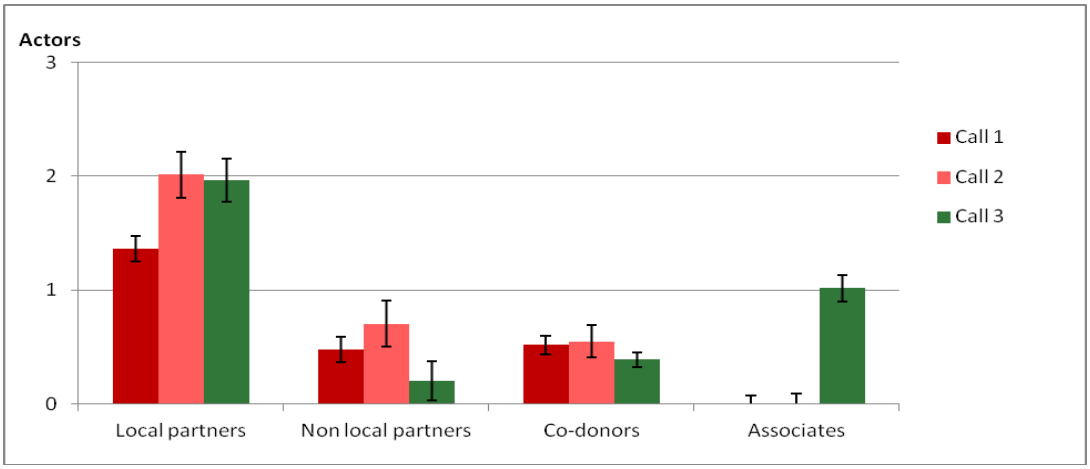


Figure 2.143: Number of all actors types per project for the three WF calls. Average values and standard error of the mean are displayed.

Applicants having been granted several projects and reapplication

It is interesting to observe if applicants that have already taken part to the WF were still active in submitting proposals to the 2010 call. As we see in Figure 2.144, many applicants to call 2 and 3 have been awarded in previous calls (Figure 2.144, orange data series). At the same time, many applicants to the call 1 and 2 submitted a proposal to the call 3 (Figure 2.144, green data series). This means that around 15% of the applicants awarded in the last call have been either awarded in all calls or in at least one of the first two ones (Figure 2.145).

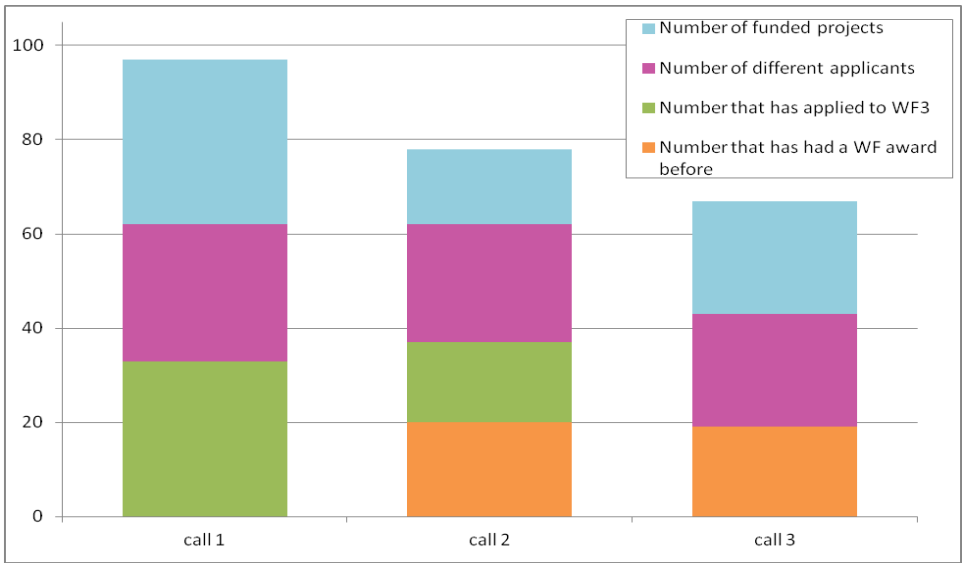


Figure 2.144: General figures on applicants of projects funded by the WF since 2004 (superposed bars).

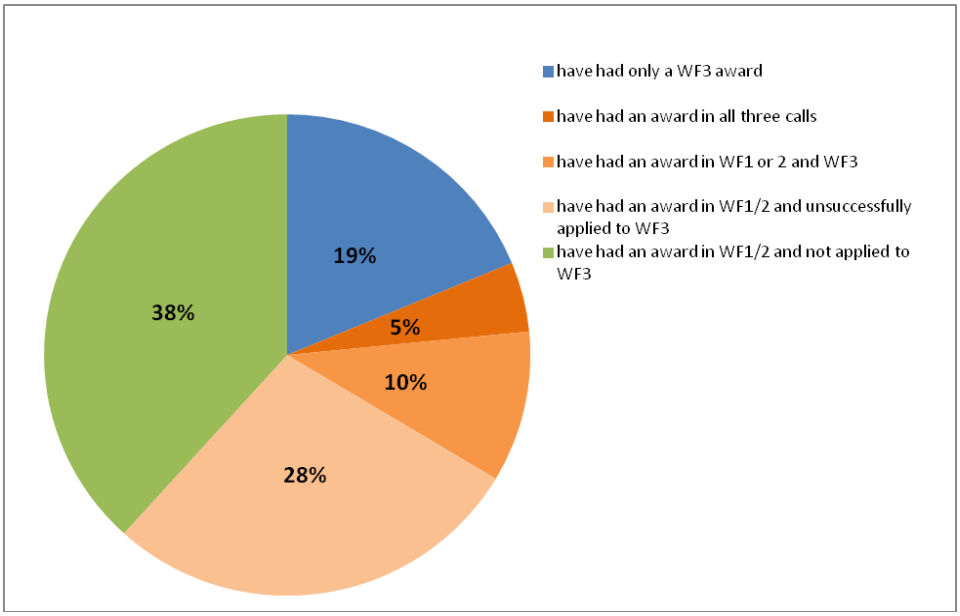


Figure 2.145: Reapplication statistics for the applicants of projects funded by the ACP-EU WF since 2004

Details about applicants submitting more than one proposal are shown in Table 2.13. Among the organizations presented in this table, 6 non ACP organizations have been granted by all Water Facility calls (rows highlighted in gray). There were 7 organizations that have been granted more than 6 projects (highlighted in bold). One of the useful capabilities of the online database is the possibility to check all proposals that a specific actor has submitted. This might be useful to assess the continuity of funded projects or the location of different projects of the same applicant.

Applicant			Funded projects			
Name	**Origin**	**Legal status**	**CALL 1**	**CALL 2**	**CALL 3**	**Total**
MINITERRE	RW	State actor		2		2
ABN - Autorité du Bassin du Niger	NE	W/S operator		2		2
OMVS - Organisation pour la mise en valeur du fleuve Sénégal	SN	International organisation	2			2
SADC - Southern African Development Community	ZA	International organisation	2			2
AMREF Kenya	KE	Foundation	3	1		4
Ministry of Water and Livestock Development	TZ	State actor	3			3
International Federation of Red Cross and Red Crescent Societies	**CH**	**Network/Federation**	**5**	**3**	**1**	**9**
UNICEF	**US**	**International organisation**	**10**	**5**	**4**	**19**
CTB - Coopération Technique Belge	BE	Development agency	2	1		3
GTZ - Deutsche Gesellschaft für Technische Zusammenarbeit	DE	Development agency	3	2		5
EIB - European Investment Bank	LU	Financial institution	2	1		3
Deutsche Welthungerhilfe	DE	NGO	1	2		3
Red Cross Danmark	DK	NGO		1	3	4
Red Cross Spain	ES	NGO	2	1	1	4
Red Cross France	**FR**	**NGO**	**3**		**6**	**9**
Action Contre la Faim	**FR**	**NGO**	**2**		**4**	**6**
CARE France	FR	NGO	3		1	4
EAU VIVE	FR	NGO	1	2	1	4
GRET – Groupe de Recherches et d'Echanges technologiques	FR	NGO	2	1	1	4
Solidarités International	FR	NGO		2	2	4
Association Triangle Generation Humanitaire	FR	NGO			2	2
INTERAIDE	FR	NGO		2		2
OXFAM UK	**GB**	**NGO**	**3**	**1**	**2**	**6**
PLAN UK	**GB**	**NGO**		**1**	**5**	**6**
WaterAid	**GB**	**NGO**		**4**	**2**	**6**
Concern Universal	GB	NGO	2		1	3
International Rescue Committee	GB	NGO			2	2
Mercy Corps Scotland	GB	NGO			2	2
Comunita Impegno Servizio Volontario	IT	NGO	1		2	3
LVIA - Associazione Internazionale Volontari Laici	IT	NGO	2	1		3
ACRA - Associazione di Cooperazione Rurale in Africa e America Latina	IT	NGO	2			2

Table 2.17: Applicants that have been granted more than 1 project in at least one WF calls.

2.3.1.3. Project type and duration

Profile of project type was totally different from the first two calls to the last one (Figure 2.146), due also to their different objectives.

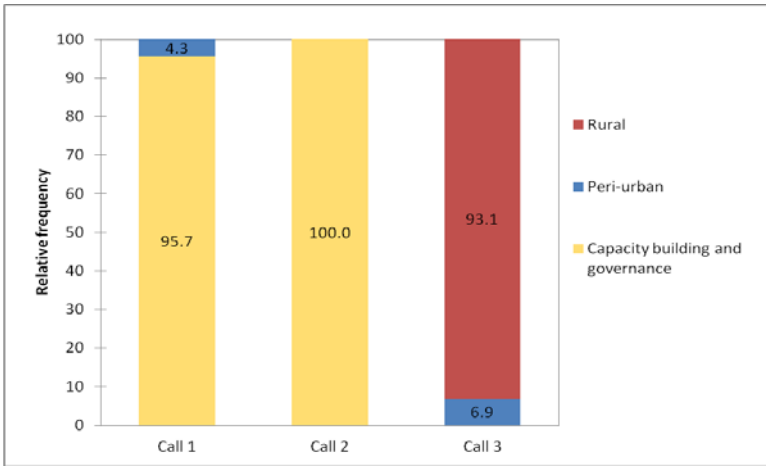


Figure 2.146: project type for the three WF calls.

Regarding project duration, projects of the last call were slightly longer one average than the rest (Figure 2.147).

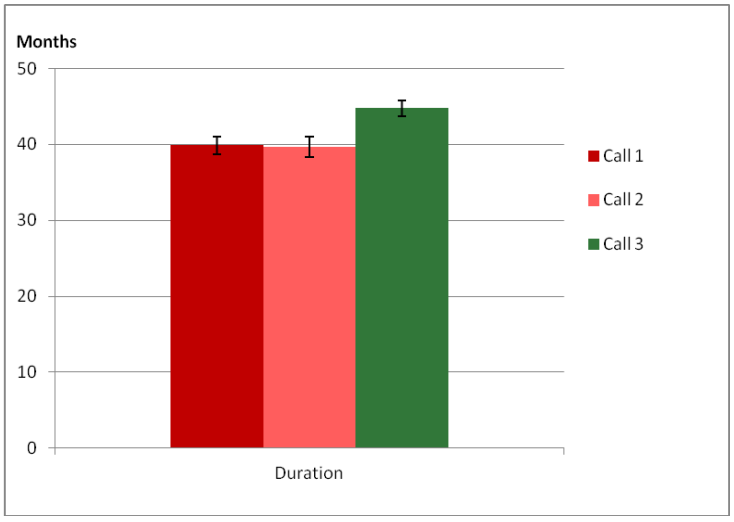


Figure 2.147: Project duration for the three WF calls.
Average values and standard error of the mean are displayed.

2.3.1.4. Project financing and budget closure

Total funding considering awarded projects of the three WF calls is displayed in figures 2.148 (for African and Caribbean regions) and 2.149 (for Pacific region). Ethiopia, Mozambique, Kenya, Uganda and Tanzania were the countries that received most funding. Except from Mozambique, they all belong to the Eastern African Region.

Figure 2.148: Total funding of awarded projects of the WF three calls (2004-2010) by country in Sub-Saharan Africa and Caribbean regions.

Figure 2.149: Total funding of awarded projects of the three WF calls (2004-2010) by country in Pacific region.

Total project cost of awarded proposals was significantly decreasing from the first to the third call (as already mentioned at the beginning of 2.3 section), and so did EC funding request and applicant financial contribution (Figure 2.150). This means that not only number of projects quite decreased from the first to the third call but also the average cost of the projects funded.

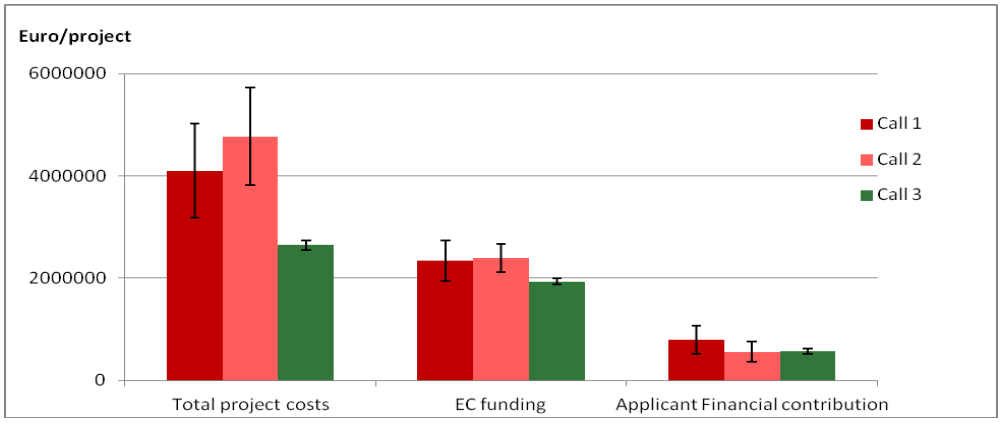


Figure 2.150: Project duration for the three WF calls.
Average values and standard error of the mean are displayed.

But the distribution of WF funding was quite variable among calls (and among different components, for the case of Call 1 and Call 2) (Figure 2.151). Projects of the last call (2010) were more concentrated in the range between 0.8 M and 2.4 M €, while funding was more spread in previous calls.

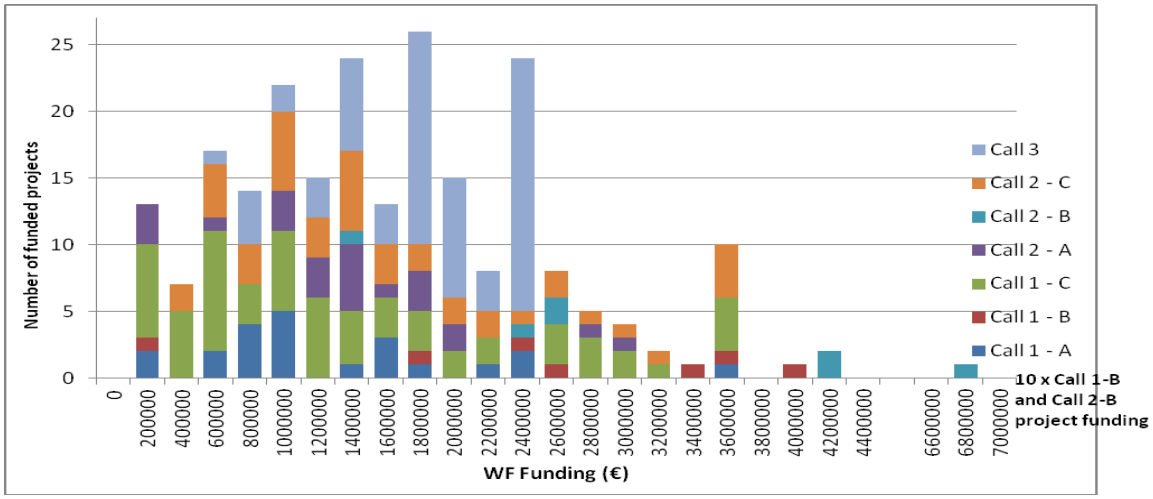


Figure 2.151: Distribution of projects funded by the WF since 2004 by grant size and call (and component, for the first two calls).

Considering data from all calls together, the relationships among total funding and number of projects by country is displayed in Figure 2.152. There we see again that the highest funding and number of proposals targeted Eastern Africa.

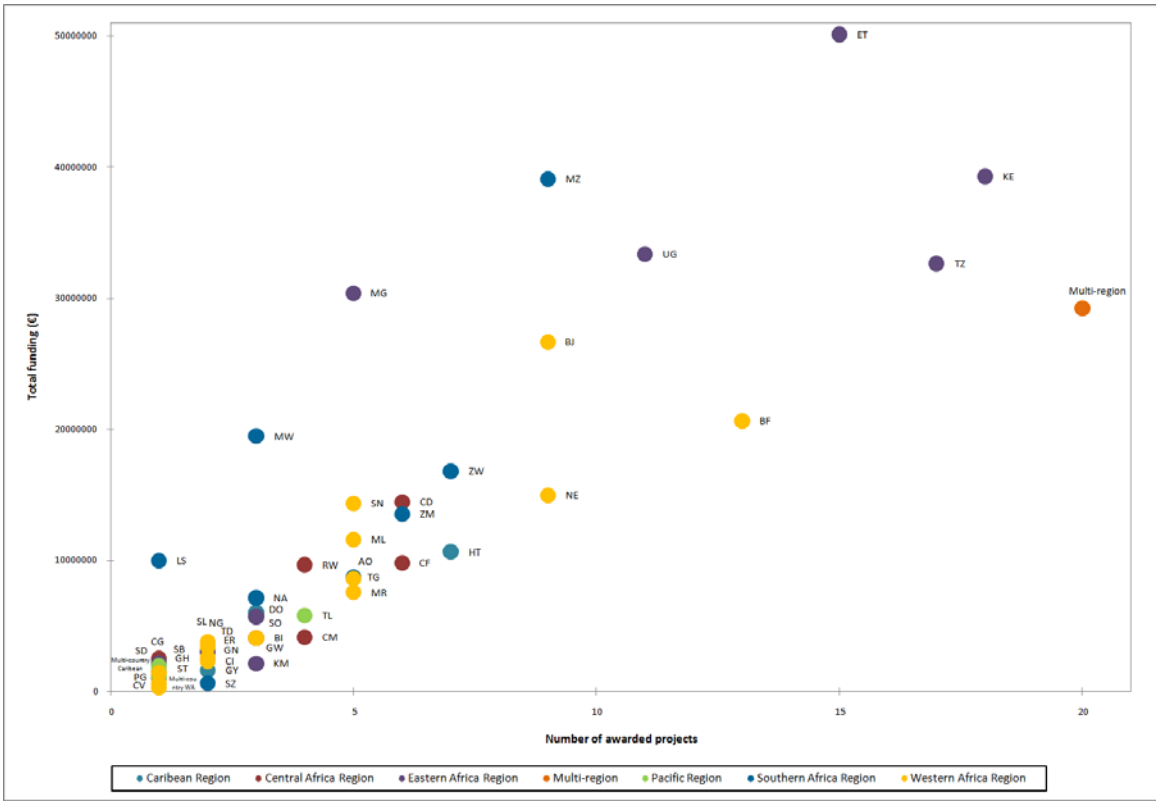


Figure 2.152: Number of awarded projects versus total funding by country for the three WF calls.

Funding allocation among countries condidering the different calls is displayed in figures 2.153 (for African and Caribbean regions) and 2.154 (for Pacific region), which show information only belonging to single-country projects. There were 33 countries where no Water Facility funded single-country project has been implemented for any of the calls (Table 2.18 for details).

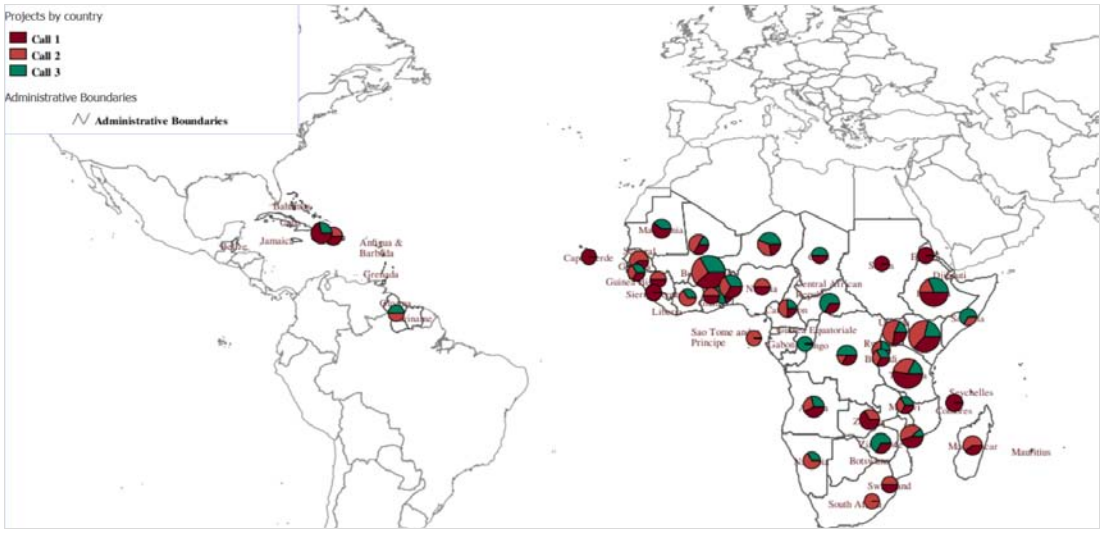


Figure 2.153: Distribution of projects and funds awarded by the Water Facility since 2004 in Sub-Saharan Africa and Caribbean.

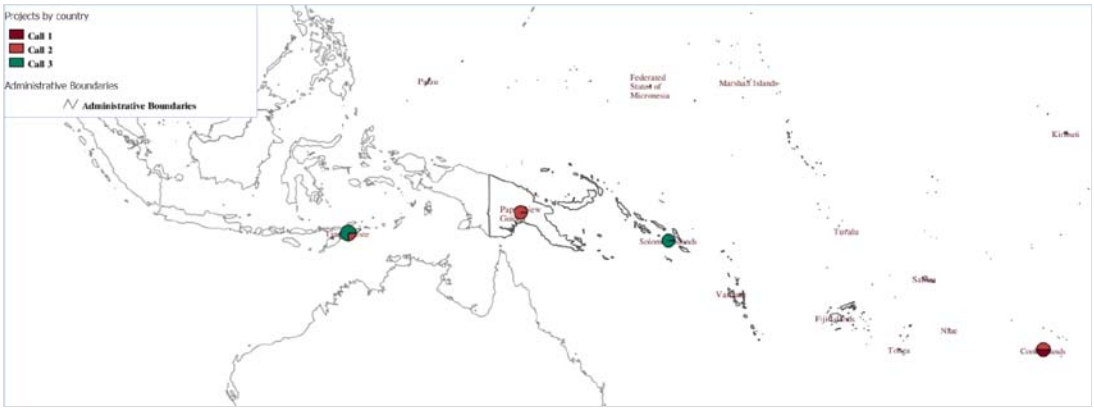


Figure 2.154: Distribution of projects and funds awarded by the Water Facility since 2004 in the Pacific region.

ACP Region	Country
Caribbean	AG, BS, BB, BZ, DM, GD, JM, KN, VC, LC, SR, TT
Central African	GA, GQ
Eastern African	DJ, MU, SC
Pacific	CK, FM, FJ, KI, MH, NR, NU, PW, WS, TO, TV, VU
Southern African	BW, ZA
Western African	GM, LR

Table 2.18: Countries where no project funded by the Water Facility has been implemented. Names of countries are given in Annex 5.

2.3.1.5. Beneficiaries and cost per beneficiary

Total number of beneficiaries as declared by the applicants, as well as drinking water beneficiaries, were much higher for the first call (Figure 2.155). On the contrary, number of beneficiaries of sanitation and hygiene activities was higher for the third call than for the others. Similar results were found for average values on beneficiaries per project (Figure 2.156).

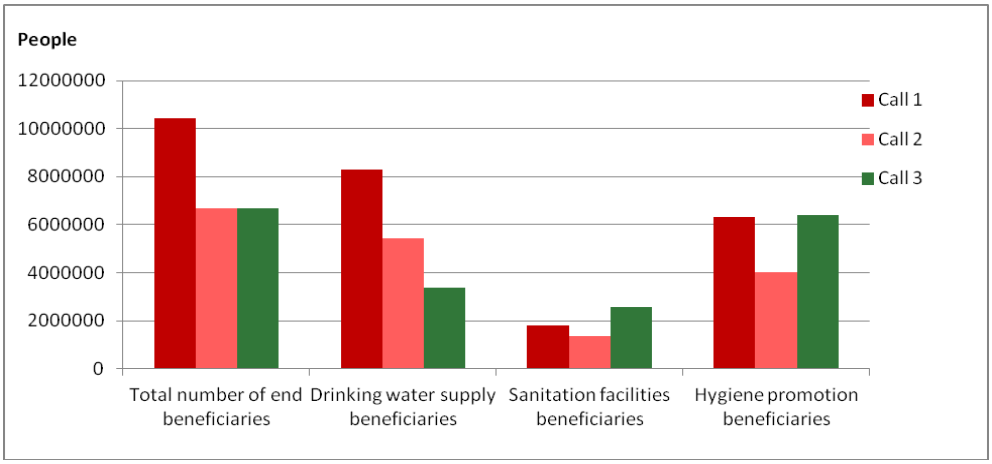


Figure 2.155: Sum of number of total, drinking water supply, sanitation and hygiene promotion beneficiaries from all awarded proposals for the different calls.
Average values and standard error of the mean are displayed.

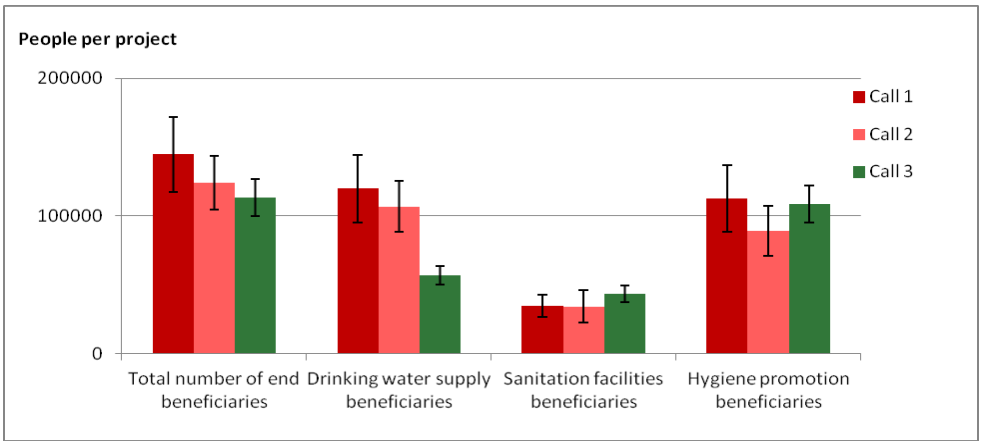


Figure 2.156: Number of total, drinking water supply, sanitation and hygiene promotion beneficiaries per awarded project for the different calls.
Average values and standard error of the mean are displayed.

2.3.1.6. Development indicators

While assessing the results concerning the development context of awarded proposals for the three calls, it should be always bearded in mind, that the maps displayed here, which were made using the Aquaknow online platform, do not display indicators values for the different years of the different calls. Thus, while information on proposals will differ from year 2004 until 2010, the background indicators belong always to the same year (see Table 2.2 for indicators description including year).

Water services at country level were slightly higher for the countries where projects were implemented 2nd call, but presented similar values for the 1st and 3rd calls (Figure 2.157).

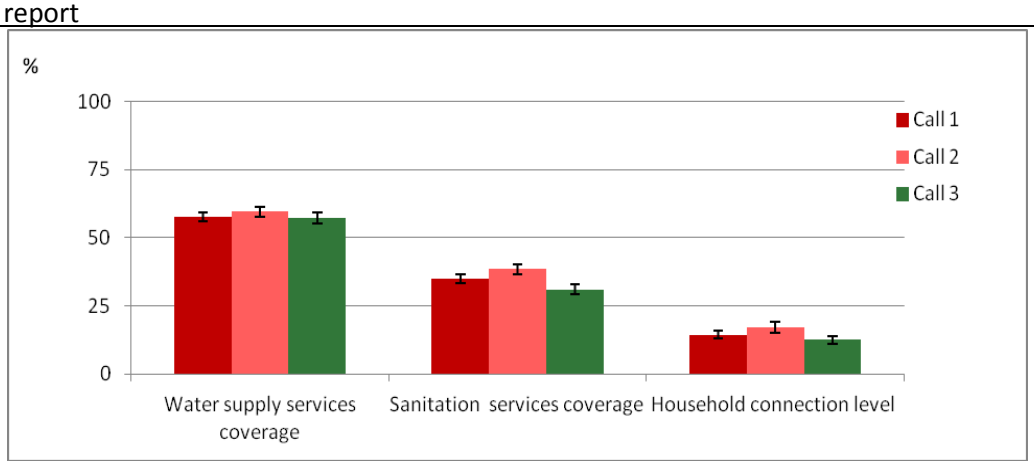


Figure 2.157: Water services indicators for the three WF calls for proposals. Average values and standard error of the mean are displayed.

Similar average values for GDP and HDI were found for project countries of the 1st and 3rd calls, while they were higher for the 2nd, especially for GDP (Figure 2.158).

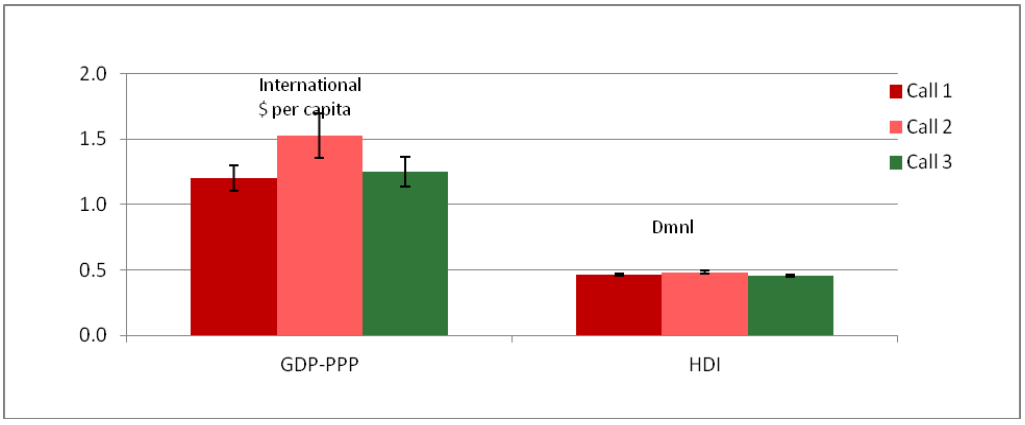


Figure 2.158: GDP and HDI for the three WF calls for proposals. Average values and standard error of the mean are displayed.

Children mortality showed no significant differences on average among project countries for the different calls, while malaria disease showed higher prevalence on average in the 2nd call (Figure 2.159).

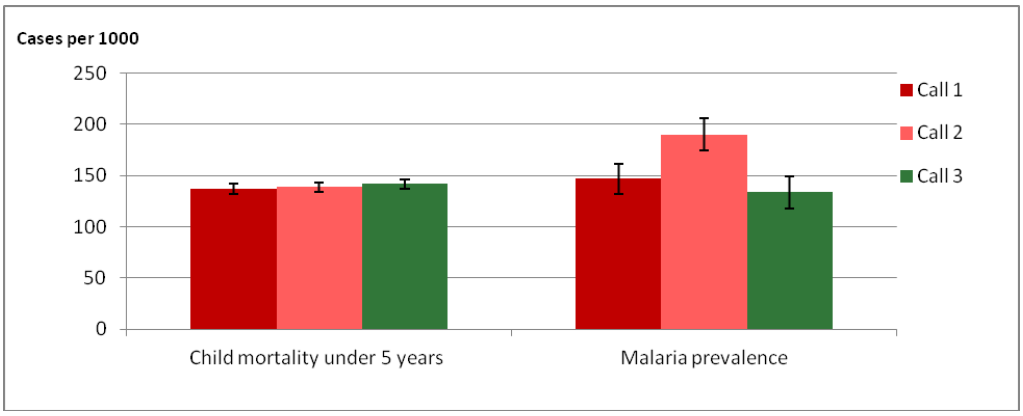


Figure 2.159: Health indicators for the three WF calls for proposals. Average values and standard error of the mean are displayed.

Lower values of population living in slums were found for the last call project countries. However, it came together with lower values for children enrolment at school (Figure 2.160), showing no clear socio-economic trend along time.

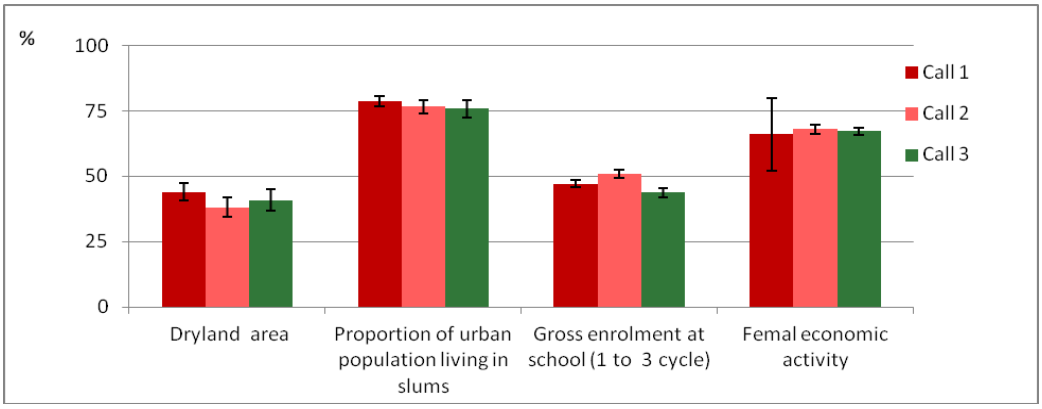


Figure 2.160: Development indicators for the three WF calls for proposals. Average values and standard error of the mean are displayed.

Slightly higher values of population growth in rural areas were found for project countries of the last call (Figure 2.161 left). However, differences were not very relevant. Regarding urban population growth, which may determine peri-urban growth rates, third call countries showed slightly lower values as compared to the 2nd call.

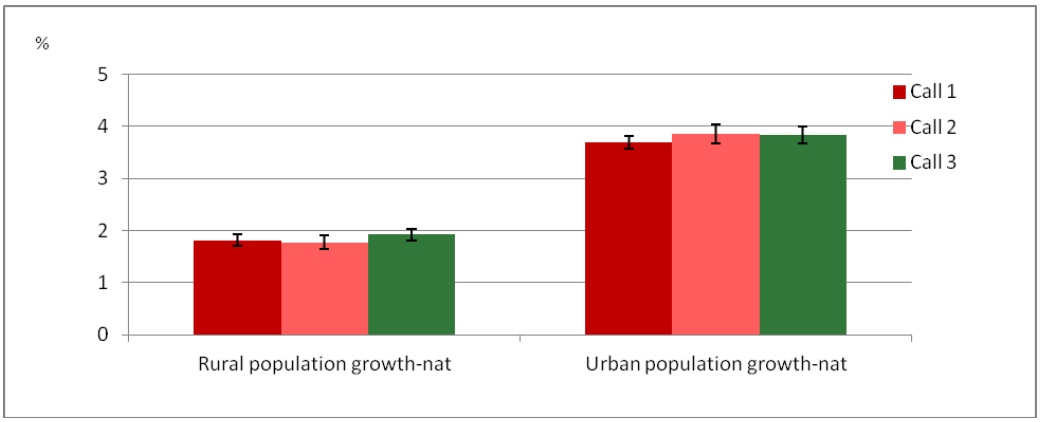


Figure 2.161: Population growth (rural and urban) for the three WF calls for proposals. Average values and standard error of the mean are displayed.

As for governance, very significant differences among calls were found for all indicators fro project countries among all calls. The lowest indicators values always belonged to the the last call (Figure 2.162), which shows that priority was given to countries that find theirselves in a more complicated political situation.

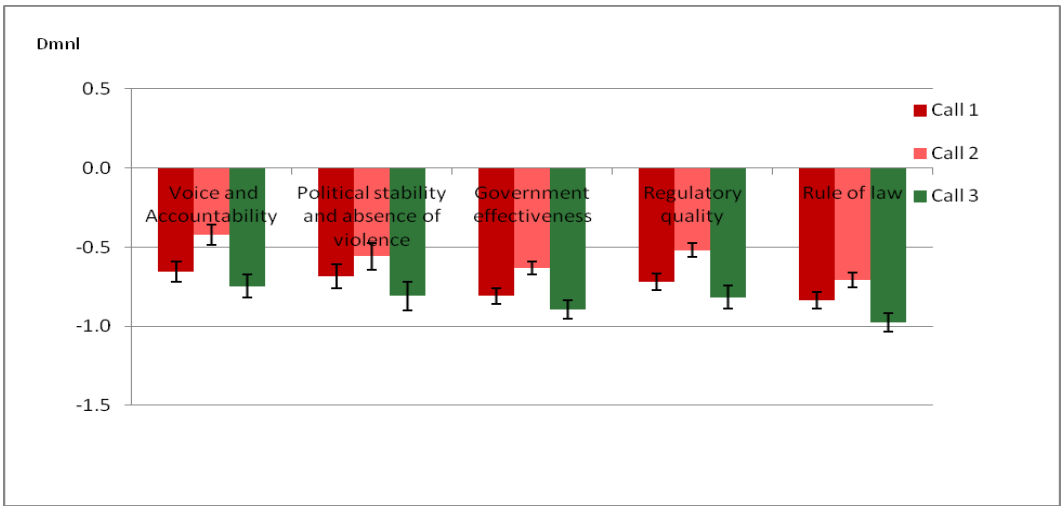


Figure 2.162: Governance indicators for the three WF calls for proposals. Average values and standard error of the mean are displayed. Dmnl responds to "dimensionless"

Award was given to countries that receipt less development aid in the case of the 3rd call (Figure 2.163). These results might be however, highly determine by the lack of update of this indicator.

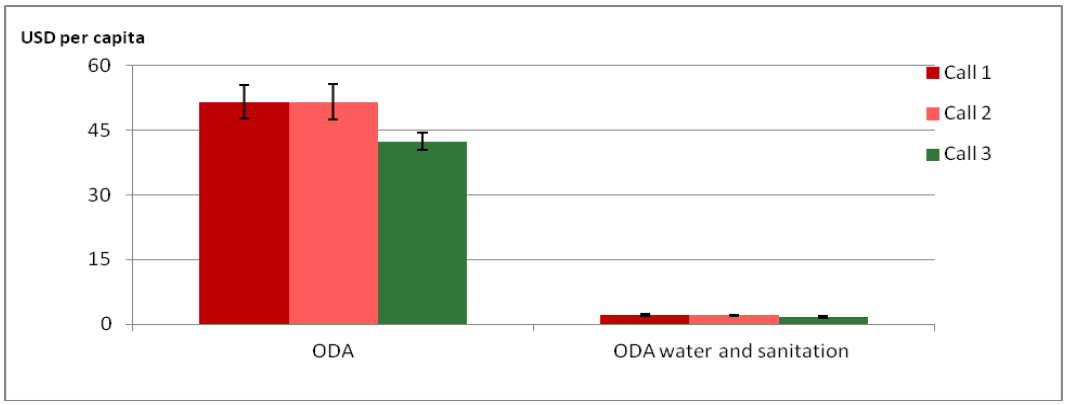


Figure 2.163: Development Aid Assistance for the three WF calls for proposals. Average values and standard error of the mean are displayed.

PART 3: LESSONS LEARNT, OUTLOOK AND CONCLUSION

3.1. Conclusions of data analysis

It is essential to bear in mind that problems with data availability and reliability were many, both for the analyses of the last WF call (2010) and for cross-calls analysis. Many annexes F from the 2010 call were lacking for the last call and a long data cleaning process had to be implemented, which in many cases had to be manual, with the associated risk of introducing human errors into the database. Additionally, for rejected proposals submitted to Call 1 and Call 2, no data cleaning but only the removal of obviously erroneous data was done. Data was even more problematic for the implementation of the multivariate analysis, due to the frequent lack of data. Therefore, conclusions can only be drawn with caution. Additionally, we find that changes should be introduced in the way information is asked to applicants in order to:

- **Reduce the uncertainty attached to the data collection** process and to increase the share of information that can be encoded to facilitate the implementation of analyses.
- Make more transparent the whole selection procedure according to the guidelines of the call, since **many of the criteria considered in the evaluation grid were very subjective** and **could not be encoded into the WEIRS database**.

These issues will be addressed in section 3.2 below, where recommendations for designing the data forms will be given.

3.1.1. 2010 WF call data characterization

3.1.1.1. Received proposals

In this section the received proposals to the 3rd Water Facility call for proposal have been analyzed under different viewpoints. The overall conclusions are:

- The geographical distribution of the ACP-EU WF 2010 WaSH proposals locations was quite smooth. Missing countries were Small Island Developing States (SIDS), as well as Botswana and Gabon. Top proposal locations were Kenya (46), Senegal (33), Burkina Faso (32), Ethiopia (30), Democratic Republic of the Congo (28), Uganda (25) and Mali (23).
- The majority of proposals has been submitted by NGOs and foundations (68.4%). This shows their important involvement in this type of WaSH projects (small scale).
- There are 18 countries for which the share of local applications was higher than 50%. 44% of them are SIDS. Cameroon and the Democratic Republic of the Congo were the countries where local involvement was the most significant.
- There was a high variety of organization types (legal statuses) involved in the proposals. The analyses done in section 2.2.3.2 show that the roles these organizations played in the proposals depended on their origin, but that that there was no general rule to be made out.
- Applicants to the 2010 ACP-EU WF would contribute to 19.3% of total project costs, while the partners and co-donors contribution would be of 8.1%. About 50% of partners and co-donors contributions would be ACP funds.

- The availability of detailed technology data is a new feature of the 2010 WF call for proposal. In spite of the shown drawbacks of this dataset, it was possible to make out general technology characterization. The data showed clearly that the proposals still focused more on drinking water supply activities than sanitation and hygiene promotion activities.
- Indicators on development for the project countries showed a critical situation for socio-economy and water services, with low levels of sanitation, GDP, HDI and governance, together with high values of children mortality and prevalence of diseases as malaria. This came together with quite high population growth rates that might challenge even more the situation of these countries in the future.
- Considering projects regions, Pacific and Caribbean showed clear differences with the other regions. They both showed a better development situation. For Pacific projects, higher cost per beneficiary and funding request per project were found, as well as more simultaneous applications for the last call. Additionally, for Western Africa more applicants belonging to the same region submitted proposals.

3.1.1.2. Awarded Vs. rejected proposals

The most remarkable differences between the subset of awarded and rejected proposals in the 2010 WF CfP, according to the results of the comparison of the two data subset (section 2.2.5) and the multivariate analysis (section 2.2.6) were:

- A clear applicant profile for awarded projects: private, European institutions, mainly ONGs and having always local partners.
- There were some countries with higher award rate (Burkina Faso, Central African Republic, Timor Leste and Zimbabwe) and countries that, although submitting many proposals, were never awarded (Senegal, Zambia, and Dominican Republic).
- Types of technologies reduced from the initial list (30) to the final list of awarded projects (20).
- More budget share was allocated to water supply activities than to sanitation or hygiene, and also the number of water supply activities beneficiaries was the highest. This might show some contradiction with the need expressed in the 2010 WF call guidelines of reducing the sanitation deficit, which is one of the big challenges of the MDGs regarding water, especially in Sub-Saharan Africa.
- Project countries for awarded proposals showed worse values for the development indicators included in these analysis, particularly for governance indicators, GDP and water services. Therefore a slight bias in favor of most needy countries was found. However, data at lower scale might be needed to:
    - Effectively assess the relevance of the projects in the area of the project (and not compare to national development indicators).
    - Enable monitoring the impact of the projects in the projects areas.

3.1.2. Cross –calls trends

The main changes in the period 2004-2010 for the WF awarded proposals were:

- The continuous decrease of total funding and number of projects awarded.

- The great simplification of region of origin of awarded applicants as well as their legal status and legal type (private/public), when comparing the first two calls and the last one (2010).
- Many applicants awarded in the last call have already been awarded in previous calls.
- Regarding development indicators, only very clear differences were found for governance indicators and not clear trends along time were identified for the others. However, it is important to keep in mind that not time series indicators values but the one single year of each indicator was used for the comparison with data of the three calls, which may have hidden some existing trends.

3.2. Recommendations for the design of data forms of future CfP

In this section we give some recommendations to improve the design of future calls applications forms, in order to reduce time processing and better guaranty the accuracy of data. As Energy Facilities and Water Facilities proposals was initially managed and processed together, we give here recommendations for the two types of calls.

The use of detailed data forms such as Annex 3 (EF) and Annex F (WF) has been a new experience for the whole project team. Although the implementation of the WEIRS databases is an ongoing process, lessons and conclusions can already be drawn on from the work done so far.

The major information collection tool of the WEIRS system is the summarizing annex (Annex F) to the application dossier in "xls" format (Excel) that has to be filled in by the applicants. This file is the backbone of the whole WEIRS database but also an important part of the applicant dossier as it provides a handy project summary to the evaluators. Thus a special care has to be taken in the design of this form.

The objective of this section is to suggest improvements to the form design and the data structuring as to better the fill-in rate of applicants and get as precise data as possible while minimizing errors and data cleaning requirements.

3.2.1. Data encoding and additional information

As already mentioned above, many of the data fields considered for the proposals selection procedure could not be encoded into the database. So, aspects regarding the relevance of the project, its sustainability, consistency or feasibility are missing in the information contained in the database. Therefore, during the selection procedure the assessment team should have still to look up in the application form and application annexes to assess proposals according to the selection criteria. We therefore suggest asking the information concerning these missing fields in a way that it was possible to encode. This will make easier the assessment process, having all relevant information in the same database.

Additionally, it might be desirable to include in the application documents some information relevant for the assessment of the effectiveness and sustainability of the proposals. For instance, the information regarding the state of water quality in the projects area, which was missing in the application annexes, might be essential for the assessment of water supply, sanitation and hygiene projects. We also suggest the inclusion of more clear indicators to quantify the sustainability of the projects. For instance it is very important to quantify the cost of access to water and sanitation for the users of the services in the project areas to assure the use of the infrastructure developed by the targeted population (WHO and UNICEF, 2005). WHO and

UNICEF (2005) also recommend analyzing the habits of local population, especially regarding water transport and domestic storage, in order to assure the effectiveness of access to safe water, since it is estimated that more than 80% of the population with access to improved water sources actually drinks contaminated water due to transport, storage or use conditions.

And finally, and since women play a central role in water use and hygiene practices (WHO and UNICEF, 2005), we suggest the inclusion of data on gender, which can help assessing the real impact of activities on water supply, sanitation and hygiene in the project community.

3.2.2. General recommendation to better the fill-in rate and quality of the required data

The experience with all 3 data forms has shown that the amount of requested data does not have an influence on the fill-in rate. In fact, no significant difference between the forms on this aspect was noticed during data import and cleaning. It was more the way information was asked that influenced the quality and quantity of obtained data. The most frequent reasons for missing data were:

- Misunderstanding of requested information by the applicant (e.g. some applicants gave the number of benefitting villages instead of the number of benefiting people, different values for the "subtotal direct eligible costs" in the different tables of the Budget and Project financing part of Annex F, project description instead of technology description…)
- Demand of high level of detail that the applicant did not have available (e.g. diverse budget breakdowns, technical data of installations set up by the project…)
- Information given in wrong format or with different spelling (text instead of numeric, use of comma as thousand separator, use of comma and point as decimal separator, lat-long coordinates in degrees or decimals…). Applicants to the Water and Energy Facilities are organizations from all over the world. This has as a consequence a wide range of cultural backgrounds and language skills which influence on the way the data requests were understood and answered to.

The use of "xls" as file format implied several technical constraints regarding the import of the project data into the database. Import issues mostly arose because the structure of the form, i.e. the fields where information was located, was altered and the WEIRS import system could not read the form anymore. Modifications to the form structure resulted from both the use of an older version in "xls" format by the applicant and fill-in the form and the voluntary modification of the form by the applicant to present the information in a better suiting way.

Thus recommendations to improve the fill-in rate and the quality of the data are:

- To keep the form as simple as possible, avoiding the use of macros, so that the file is readable by any version of Excel
- To clearly indicate what type of information is requested in each field by e.g. specifying the units (benefitting people, lat-long in degrees/decimals...), adding comment boxes, using data validation (text, numeric, range...)
- To lock the application form structure in order to avoid its alteration and allow only the modification of field contents
- To underline that the layout has not to be altered and that no other version of the form than in "xls" format will be accepted

- To introduce automatic calculation of sums and percentages (Excel formulas which cannot be modified by the applicant) which may allow the applicant and the evaluator to immediately check data consistency
- To avoid free text fields for data to be analyzed. The drawback is that you only get the info you are asking for and thus might miss a part of the project reality, but analyzing this type of data requires manual formatting. The experience with the past calls for proposals should enable to make always better drop lists.

Furthermore, it should be avoided to publish different versions of a form because some applicants do not check for the latest version of the applicant dossier before sending their application and then two (or more) versions of the form have to be coped with. The major issues with this were:

- Possible differences in the form structure which imply that 2 import routines have to be written and delays the data import process;
- Possible differences in the data structure, which make the data analysis more complex because of different or not corresponding data preciseness levels.

3.2.3. How to better structure the data and improve the data analysis

As described in section 1.5.1, the data import and cleaning processes have raised a number of issues concerning the structure of the data and its possible values. The presented list of values should be taken into account when designing the data forms of future calls as to ensure that data sets from different calls can be compared.

In this section, further issues impacting on the data analyzability and linked to the WEIRS database will be discussed.

3.2.3.1. Project location

As to make the project data available for analysis and display it on a map, it is necessary to get it in a standardized address format from which the country, place name and latitude-longitude coordinates can be extracted in an automatic way or read straight away by the system. This means that the different parts of the address have to be stored in separate fields, as has been done in Annex 3. Although a free text field may allow to get more descriptive information (as was the case in Annex F), this way of asking for the project location should be avoided since it cannot be analyzed automatically and requires manual cleaning and formatting of the data, with the associated risk of introducing human errors. Most proposals were implemented in 1 to 5 locations, thus 5 address rows should be enough. If possible, the latitude-longitude coordinates should be required in decimal format.

3.2.3.2. Unique identifier for the different organisations involved in the proposals

As underlined several times before, the most important issue in managing the actor data was the lack of a unique identifier for each different organization. The formed DG EuropeAid has put into place the "Potential Applicant Data Online Registration - PADOR" database which "*contains information about organizations applying for grants of the European Commission in the field of external assistance".* Upon registration into the database, an organization gets an identification number called "EuropeAid ID" or "PADOR number" which fits best for use in the WEIRS database. Although registration to the PADOR database may not be compulsory to take part as

partner, associate or co-donor into a proposal, this number should be requested anyway as the organization may have already done the registration in the framework of another project.

3.2.3.3. Contribution of actors to project financing

In Annex 3 (for EF) and Annex F (for WF), the actor contribution to the project financing was requested in a separate table with only limited information on the contributing actor (actor type and name). This way of presenting the information suits well to the proposal evaluators since it allows getting a quick overview on project financing, but it turns out to be very hard to manage from a database point of view. In fact, it is impossible to link the actor data from the actor list to the contribution data from the project financing table in an automatic way. This work has been done manually for the 2010 calls for proposals, being very time consuming and having the associated risk of introducing human errors.

As to avoid this situation and save time for other more needed data cleaning activities, we suggest organizing the actor data by actor type in a separate sheet as in Annex F adding a field for the actor's financial contribution to the project. The amount should be automatically copied to the project financing table or the applicant asked to fill-in the table (with the risk that he only fills-in this information once). Another option would be to leave the project financing table out of the data form and produce it with the WEIRS database upon data import.

3.2.3.4. Importing two successive data forms

The main issue that arose while importing Annex 3 (EF) was that it was not possible to automatically compare Annex A data with Annex 3 data because of differences in the data structure and the lack of unique identifiers for the project actors. As to know what data to keep and remove duplicates, both data sets had to be compared manually, which was very time consuming. From a database point of view, Annex A has no added value compared with a more detailed data form such as Annex 3. Thus the suggestion would be to ask applicants to fill-in a detailed data form such as Annex 3 from the beginning and ask selected applicants to fill-in missing information if necessary.

3.2.3.5. Project beneficiaries

Different beneficiary categories were chosen by the EF and WF managers:

- Geographic distribution by type of place where they live: rural, urban, peri-urban
- Distribution by activity they benefit from: drinking water, sanitation, hygiene promotion
- Distribution by sex and age

The choice depends on the project type and thematic. However, it should always be possible to estimate the total number of beneficiaries as to be able to compare projects to other projects independently from the option chosen before. In the case of exclusive categories (such as rural/urban/peri-urban), a beneficiary can only belong to one category and the total number of beneficiaries is the sum of all categories. But in the case of non-exclusive categories such as the project activity, a beneficiary can belong to several categories and it is not possible to estimate the total number of beneficiaries without further information. Thus, the total number of beneficiaries should always be requested.

Another interesting possible analysis of project beneficiaries would be based on the proper place where the installations are set up. The tentative list could be:

- Schools

- Clinics, medical centers, hospitals
- Community centers
- Open public installations (in yards, plots, public places)
- Households
- A certain area/district, a slum

This categorization has the advantage of giving additional implicit information on the type and number of beneficiaries.

3.2.3.6. Technology data

Different options have been chosen by each Facility managing team to requested information on the technologies employed in the projects. In Annex F (WF) limited space was allocated to the rather qualitative description of the project technologies, but a high degree of liberty was given to the applicants through free text description fields. On the contrary, in Annex 3, a large space was allocated to the technology data and the applicants closely guided to provide detailed quantitative information on the employed technologies. This situation has highlighted the advantages and drawbacks of each option even stronger.

Although the call guidelines describe the eligible actions with some detail, a wide range of technological solutions has been submitted by the applicants. In both annexes, they managed to provide information on technologies and situations that had not been foreseen when designing the forms. The challenge in getting technology data is thus to give sufficient liberty to the applicants as to allow them to provide data in unforeseen or complex cases, while keeping the data in a structure and format that can be used for analysis at the lowest manual cleaning cost.

For the next calls, suggested improvements for both forms are thus:

- To request the technologies data in a table with drop lists (and locked fields to prevent structure modification). Presenting the technology list as done in Annex F, had the advantages that the applicant must actively indicate the technologies they use, that filling-in was made easier and thus more attractive and that the table can be read easily by the data import system. For EF technologies data cleaning, to determine if a technology is used the only possibility was to choose a field (annual energy output) to be scanned by the system. Thus, some information on technologies was lost if applicants did not fill-in the annual energy output field, although they had filled-in all other fields
- To remove the free text description field since it cannot be exploited for data analysis. Furthermore, this may encourage applicants to filling-in the technology table
- To let a few free text rows in the table to allow describing unforeseen/complex situations
- In Annex 3, to request the number of installations as well as output and power per installation and calculate the total power and output automatically
- In Annex F:
    - Separate hygiene promotion and other capacity building activities from the installation of drinking water and sanitation facilities, since they belong to very different types of activities
    - For each type of installation, to ask for end beneficiaries of each type of activity, but nevertheless ask for the total number of end beneficiaries

3.3. Outlook: further developments of AQUAKNOW and WEIRS to support the management of the Facilities

The WEIRS online database as well as the AquaKnow platform are implemented with a highly flexible content management system (CMS - DRUPAL). This CMS system offers more advantages that could be of interest to DEVCO for the management of the Facilities than those used actually by WEIRS.

There are three process steps at which the system could offer interesting advantages (see also summary in table 3.1.), which could be developed in further:

- Application to the Facilities: the main advantage offered by the system in this field is the possibility of implementing secure on-line forms to be filled-in by applicants and thus alleviate the EC proposal reception procedure and will allow a real-time monitoring of the response and form fill-in rate. In addition, it is also possible for applicants to upload the whole application dossier to their proposal information form. This may provide further data storing opportunities and increase the monitoring quality of the calls. This finally will allow the DEVCO staff to have a real-time picture of the call (geographical distribution of the proposals, amounts being involved, technical details, …) and directly identify the incoherency of applicant declarations (number of beneficiaries, technical data, costs, …).
- Proposal evaluation: the experience of the one-page synopsis and the preliminary analyses done to set up a proposal evaluation reference during the 2010 WF WaSH call has demonstrated the great reactivity of the WEIRS system. If properly integrated and scheduled in the evaluation process, it is possible to rapidly provide striking project summary sheets and data analyses. Unlike the compulsory but heavy and time consuming burden of manual encoding of proposal data into the CRIS database, data import into the WEIRS database is done with a few clicks and the data can be visualized on-line and exported to "xls" format (Excel) right away. Batches of proposal summaries such as the One-page-synopsis or pre-filled-in forms for proposal evaluation can be generated by the system in a few clicks as well.
- Project monitoring: The AQUAKNOW.net web-based system is potentially accessible from all over the world. Thus its features could be used to communicate with project implementing organizations and by on-field monitoring teams. Working documents necessary to project monitoring teams on the field can be stored, monitoring reports filled-in online or their "xls" version imported, documents and other material such as pictures taken of the installation (by monitoring team or implementing organization) added to the project description sheets, summarizing technical project reports and prefilled-in evaluation documents generated.

As mentioned in section 1.3.1, to ensure confidentiality and protect sensitive WF and EF data, different categories of users with different rights for accessing, visualizing and editing the database can be created. Dedicated working groups would allow their members to exchange and share working documents.

Functionality	Process step		
	Application to the CfP	Proposal evaluation	Project monitoring
Centralisation of data and accessibility from all over the world		Overview on the response to the call	Monitored project data available at all times from any place in the world
On-line forms	To be filled-in by applicants allowing real-time monitoring of the response to the call		To be filled-in by project implementing organisations or on-field monitoring teams
Uploading documents and pictures to project data sheets	Possibility for applicants to upload the application dossier on-line	Upload proposal evaluation report	Upload monitoring reports and pictures of the installations
Generation of summarizing project reports		Generate batches of proposal summaries for evaluation support	Generate monitoring specific project summary
Generation of pre-formated and partially filled-in forms		Generate pre-filled-in proposal evaluation forms to be used by proposal evaluators	Generate pre-filled-in project monitoring forms to be used by monitoring teams
WEIRS on-line and off-line data analysis		Overview on proposal characteristics	

Table 3.1: Summary of the advantages offered by AQUAKNOW and WEIRS to support the management of the Water (and Energy) Facilities.

3.4. Final conclusion

The implementation of the WEIRS system, from designing the database structure to exporting and analyzing the first data sets has been a long lasting by very enriching process. It has required a wide variety of skills and a high flexibility as to adapt and adjust the system to any new operational requirement. The whole process has taught useful lessons which should help to improve the organization, management and analysis of proposal data and ultimately improve the design of future Facilities.

In the framework of the WEIRS project, a set of two on-line databases holding information on proposals submitted to the successive calls for proposals of the Water and Energy Facilities since 2004 has been implemented. General, geographic, technical, financial and administrative data on 2500 proposals has been introduced in the databases. The WEIRS databases are accessible on-line through the AQUAKNOW.net and EUEI.net web portals. The system allows users to:

- ✓ Search the proposal database
- ✓ Visualize and edit proposal data sheets
- ✓ Display the search results on a map and customize the map
- ✓ Export project, actor and technologies lists to “xls” for off-line data analyses

The second outcome of the WEIRS is the development of an off-line project data analysis. The purpose was to give a “multi-point of view” overview of the calls for proposal at all process steps, illustrating the many advantages of the functionalities offered by the WEIRS database systems. Received proposals were analyzed during the selection procedure as to provide an evaluation reference or material for communications on the selection process. Realized after the end of the selection procedure, the analysis of proposal data gives feedback on the appeal of the call for

proposal and possible biases of the selection procedure and provides leads on how to improve the design of future call for proposal. The analysis of awarded projects of a single CfP or across calls provides a picture of the results and gives insights into possible impacts of the Facilities. The centralization of proposal data in the databases has dramatically bettered the feasibility of cross-call analysis

The developed tools have proven their usefulness during and after the proposal selection procedure. The data was centralized at a reasonable human resources cost and it was possible to get a trustworthy overview of the proposals even on raw data. Although some data cleaning is still needed, the analyses presented in this report have already given interesting insights into the results and possible impacts of the Water Facilities. As to complement the analysis and make progress towards the evaluation of the Facilities' impact, the data on past calls needs to be cleaned and the whole data set combined with time series data of development indicators. Obtaining development indicators at more detailed scale would be also essential to assess the actual relevance and impact of the projects in the areas where they are implemented. The geographical information system of the AquaKnow platform may be a powerful supporting tool for that.

The AQUAKNOW.net platform offers far more advantages that could be of interest for the management of the Facilities at several steps of the process. The possibilities to securely fill-in data forms on-line, to generate batches of summarizing project reports, to upload different types of proposal documentation could alleviate the management burden of the Facilities and should be considered as to exploit the WEIRS system to the maximum of its capabilities.

There are three process steps at which the system could offer interesting advantages (see also summary in table 3.1.), which could be developed in further:

- Application to the Facilities: the main advantage offered by the system in this field is the possibility of implementing secure on-line forms to be filled-in by applicants and thus alleviate the EC proposal reception procedure and will allow a real-time monitoring of the response and form fill-in rate. In addition, it is also possible for applicants to upload the whole application dossier to their proposal information form. This may provide further data storing opportunities and increase the monitoring quality of the calls. This finally will allow the DEVCO staff to have a real-time picture of the call (geographical distribution of the proposals, amounts being involved, technical details, …) and directly identify the incoherency of applicant declarations (number of beneficiaries, technical data, costs, …).
- Proposal evaluation: the experience of the one-page synopsis and the preliminary analyses done to set up a proposal evaluation reference during the 2010 WF WaSH call has demonstrated the great reactivity of the WEIRS system. If properly integrated and scheduled in the evaluation process, it is possible to rapidly provide striking project summary sheets and data analyses. Unlike the compulsory but heavy and time consuming burden of manual encoding of proposal data into the CRIS database, data import into the WEIRS database is done with a few clicks and the data can be visualized on-line and exported to "xls" format (Excel) right away. Batches of proposal summaries such as the One-page-synopsis or pre-filled-in forms for proposal evaluation can be generated by the system in a few clicks as well.
- Project monitoring: The AQUAKNOW.net web-based system is potentially accessible from all over the world. Thus its features could be used to communicate with project implementing organizations and by on-field monitoring teams. Working documents necessary to project monitoring teams on the field can be stored, monitoring reports

filled-in online or their "xls" version imported, documents and other material such as pictures taken of the installation (by monitoring team or implementing organization) added to the project description sheets, summarizing technical project reports and prefilled-in evaluation documents generated.

3.5. WEIRS project documentation

As well as in section 3.2 (recommendations for the design of data forms in future CfP), here we detailed not only the documents of the projects associated with the Water Facilities but also with the Energy Facilities.

3.5.1. Administrative documentation

Administrative arrangement FED 2009/217-674

JRC59279 – WEIRS Inception Note

JRC62621 – WEIRS Intermediate Report

3.5.2. Submitted analyses

3.5.2.1. Water Facility

JRC59280 – Preliminary Statistics on Proposals submitted to the Water Facility 2010 WaSH Call for Proposal

JRC66449 – Global Evaluation and Analysis of the Water and Energy facilities - Water and Energy facilities InfoRmation System (WEIRS) - FINAL REPORT

Poster on projects funded by the WF so far (*wf-poster-tent-2.ppt*)

3.5.2.2. Energy Facility

JRC60606 – Preliminary Statistics on Concept Notes submitted to the Energy Facility 2010 Call for Proposal: merging of following analyses:

- ✓ First analyses EF2010CN 020310 cor.doc: Preliminary statistical analyses carried out using 593 out of approximately 666 received concept notes. These statistics were used to write the **EF Newsletter nr. 38 (April 2010)**.
- ✓ ProjLoc_CN-Stats_666_280510.xls: distribution of received and evaluated EF2010 CN by country and region. These results were used to write the **EF Newsletter nr. 39 (June 2010)**.
- ✓ CNeval_stats_deleg.xls: distribution of received and evaluated EF2010 CN by delegation in charge. These results were used to write the **EF Newsletter nr. 39 (June 2010)**.

CONTRIBUTIONS-CHECK_180711.xls: holds the EF2010 actor list with the financial contribution of each actor to his project

TECHNO-COMP_100111.xls: holds the data cleaning work done so far on EF2010 proposal technologies

Poster on EF2010 awarded proposals: *weirs_EF_poster_map2-map4_newlook.ppt* and *weirs_EF_poster_map3_newlook.ppt*

EF projects Partners&Contributions geoloc DEM2 FINAL-FOR-DB-IMPORT.xls : precise localisation of EF2006 projects with help of information gathered from project title and applicant name as well as information from the Energy Facility monitoring website (http://www.energyfacilitymonitoring.eu/)

EF projects Partners&Contributions VAN-TRI 070211.xls : fusion of EF2006 actor data from the 2 files provided by DG DEVCO and filling of data gaps (PADOR number, legal status, origin).

3.5.3. DB user manuals and technical documentation

EF-DB-user-manual_V2_jan2011.pdf: WEIRS EF DB User Manual

LIST-OF-FIELDS 030211.xls: List of WEIRS EF DB fields

WF-DB-user-manual-V2.ppt: WEIRS WF DB User Manual

3.5.4. Former WF and EF calls data

actors apressaisiepartenairesprojetscontractes.xls: lists the applicants and their partners for all the ~300 projects submitted to the EF2006 and co-donors for the 74 awarded projects. It has been cleaned up and updated only for the 74 awarded projects. For the non-awarded ones, the fields "status", "function" and "coverage" are not fulfilled (this doesn't mean however that if these fields are fulfilled, the actor relates to a awarded project) and the other fields haven't been checked.

EF projects Partners&Contributions.xls: details of the 74 contracted projects of the EF 2006 call for proposal

Per JRC.xls: the so-called "Claudio's database" sent by S. Lucatelli on 18/12/09. This file contains information about the awarded projects of the first and second WF calls for proposals. The file contains data on general characteristics of the projects as well as details on actors, technologies and beneficiaries.

1st Call FINAL summary all 800 proposals.xls: list of all received proposals to the 1st WF call for proposal. This file holds data on general characteristics of the projects as well as details on actors (sent by M. Lambert de Rouvroit on 23/06/11).

2nd Call FINAL summary all 544 proposals.xls: list of all received proposals to the 2nd WF call for proposal. This file holds data on general characteristics of the projects as well as details on actors (sent by M. Lambert de Rouvroit on 23/06/11).

4. References

WHO and UNICEF, 2005. WHO/UNICEF Joint Monitoring Programme for Water Supply and Sanitation. Water for life: making it happen.

UNICEF and WHO. 2010. Progress on Drinking Water and Sanitation. 2010 update.

UNICEF and WHO. 2010. Progress on Drinking Water and Sanitation. 2010 update.

UNICEF and WHO. 2012. Progress on Drinking Water and Sanitation. 2012 update.

ANNEXES

Annex 1: EXAMPLE OF ONE PAGE SYNOPSIS GENERATED BY THE WEIRS DATABASE IN THE AQUAKNOW PLATFORM

Project ID	Project title
475	Improvement of Water Supply and Sanitation in Keren

Project duration: 36 months **Project location:** ERITREA / Eastern Africa **Number of partners:**2

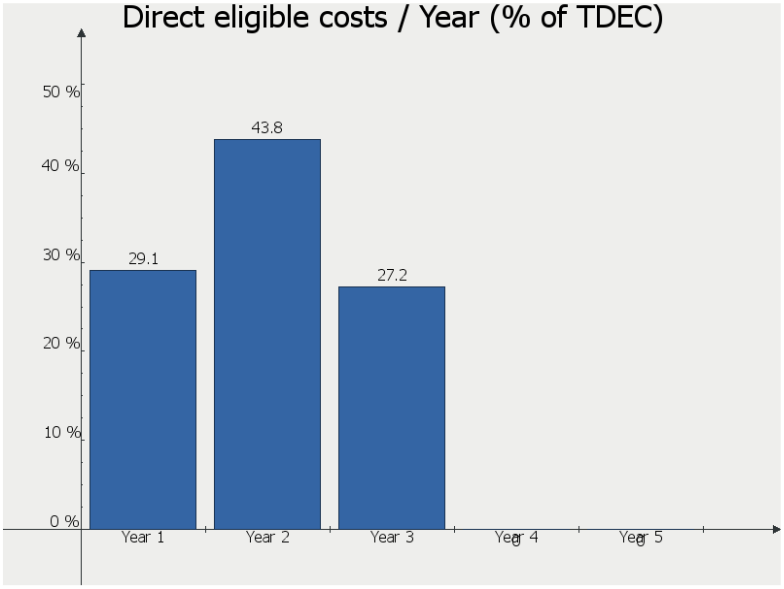
Project summary:
The proposed action will improve health and sustainable livelihood of the residents of Keren surrounding villages and while giving access to and utilization of sanitation and safe

Applied technologies:
14031 - Public tap/stand pipe - 100, 14032 - Ventilated improved pit latrine - 1200, 14031 - domestic taps - 2500,

FINANCIAL INFORMATION

TDEC:	1 972 060,00 €
TEC:	2 215 609,00 €
Proxy cost/beneficiary*:	55,39 €
* Proxy Cost per beneficiary defined as TEC/Number of Water beneficiaries	

	WATER	SANITATION	HYGIENE
Budget share as % of TDEC	75,9 %	9,8 %	14,3 %
Number of end-beneficiaries (people)	40000	12000	60000
Cost per beneficiary* (€/person)	37,43	16,12	4,69



IMPROVED DRINKING WATER AND SANITATION COVERAGE

		TOTAL	RURAL	PERI-URBAN / URBAN*
Pop. of project country (Thousands people)**		4926.87	3909.87	1017.01
Access to impr. drinking water source	% of country pop.**	61	57	74
	In project area at start (%)	N/A		0.0%
	In project area at end (%)	N/A		93.0%
Access to improved sanitation facility	% of country pop. **	14	4	52
	In project area at start (%)	N/A		0.0%
	In project area at end (%)	N/A		20.0%

* For JMP2010 data, the numbers for URBAN population was considered, while for the project area data the PERI-URBAN population is considered.
** JMP2010 data

SUBCONTRACTING

	Total	Year 1	Year 2	Year 3	Year 4	Year 5
Subcontracting (%DEC)	68,5 %	64,5 %	75,8 %	61,0 %	0,0 %	0,0 %

Delta (Applicant budget and subcontractor): -1 259 140,00€

Annex 2: EXAMPLE OF PROJECT REPORT GENERATED BY THE WEIRS DATABASE IN THE AQUAKNOW PLATFORM

Report: "Dedza & Ntcheu safe water supply, sanitation & hygiene promotion & capacity building project, Malawi"

Proposal n°	**263**	**Call 1**	**Comp C**	Country of Action	Region	
Accounting n°	**9 ACP RPR 39/7**	**CRIS193491**	Contracted on **22/06/2006**	**MW**	**Southern Africa**	
Title	**Dedza & Ntcheu safe water supply, sanitation & hygiene promotion & capacity building project, Malawi**					
Applicant	**CONCERN UNIVERSAL**					
Status	**Europe**	**NGO**	**GB**		**Duration of action (months)**	**60**
Synopsis	The action will work to improve the livelihoods of poor rural communities in four TAs in adjacent Districts in the Central Region through community households and institutions having access to safe water and improved sanitation and good hygiene behaviours. The project will rehabilitate 113 non-functioning boreholes, upgrade 23 shallow wells/springs, drill 412 new boreholes, construct and install 21,500 sanitation platforms (san plats). Sanplats will be constructed by beneficiaries but supported by project TA and non-local materials. For institutions, the project will mobilise 4 health centres and 51 schools to construct VIP latrines, hand washing facilities (HWF) and urinals. Hygiene and handwashing will be promoted at institutional and HH levels. 169 Govt & District extension and education staff will be trained in support activities and a district-level database will be installed for planning and monitoring.					
Technologies	Low technologies for water and sanitation except for medium tech for drilling and siting new boreholes with geophysics and the installation of a database.					
Activities	**Start**	**02/07/2006**	**End**	**01/07/2011**		
ROM n°	**113,941**	26/02/2009	**BABAB**			

Total elibigle cost of the action				3,585,113	%
Requested/Contracted EU Contribution				**2,688,835**	75%
Applicant Contribution					
Water	Sanitation	Hygiene	Beneficiaries in cash	$ben_ cash	$ben_cash_ percent
202,500	**107,500**	**202,500**	Beneficiaries in kind	$ben kind	$ben kind percent

End Beneficiaries

Comments	The project is well-designed, relevant and in line with the National Water Policy and National Sanitation Policy. The project activities are particularly supportive of the National Water Policy objective to "achieve sustainable provision of community owned and managed water supply and sanitation services that are equitably accessible to and used by individuals and entrepreneurs in rural communities for socio-economic development at affordable cost". The progress reports up to end of June 2008 and interviews have confirmed that the results in the plan have been achieved for the majority of the activities. For the most part, the activities have been implemented in excess of expectations. There are three activities which are reported to lag behind expected progress: construction of new water points, water quality testing, school/health centre sanitation. However, steps are being taken to speed up the completion of these activities, some of which are partially completed
Reccomendations	

Annex 3: EXAMPLE OF ANNEX 4 (Energy Facilities full application)

ACP-EU ENERGY FACILITY - ANNEX 4 DETAILED PROPOSAL — *Dossier No*

4.1.- BASIC INFORMATION

General Information

1. Title	**Development of Energy infrastructure, sound financial systems and networking of stakeh**
2. Component	Comp. 1: Increased access to energy services in rural and peri-u — **3. Duration** 46 *months*
4. Summary of the action	Providing modern energy access to the rural communities of Mulanje and Phalombe Districts

APPLICANT:

5. Name	Mulanje Renewable Energy Agency	**Acronym**	MuREA
6. Legal status	ACP Civil Society (NGO and others...)	7. EuropeAid ID nr	MW-2009-FUA-2411477137
8. Coverage	**Local**	9. Type of organization	NGO

PARTNERS — **10. Total Number of partners** 4

11. Partner 1 - Name	Malawi Environmental Endowment Trust	**Acronym**	MEET
12. Legal status	ACP Civil Society (NGO and others...)	13. EuropeAid ID nr	MW-2010-2101780406
14. Coverage	**National**	15. Type of organization	NGO
16. Partner 2 - Name	Centre for Environmental Policy and Advocacy	**Acronym**	CEPA
17. Legal status	ACP Civil Society (NGO and others...)	18. EuropeAid ID nr	MW-2010-FWZ-0501637348
19. Coverage	**National**	20. Type of organization	NGO

21. Other partners	**1. Mulanje Mountain Conservation Trust (MMCT), ACP Civil Society(NGO), Local,**
22. Associates:	**SUKAMBIZI TEA ASSOCIATION (LOCAL ASSOCIATION), MALAWI INDUSTRIAL**

Detailed project location

23. Country	**24. Administrative subdivision**	**25. Locality**	**26.Latitude**	**27.Longit.**
Malawi	Southern Region	Mulanje District		
Malawi	Southern Region	Phalombe District		

Demographic data of the project area

Beneficiaries (Only Component 1 projects)			**Beneficiaries (Only Component 2 projects)**		
28. In Rural growth centres	23,000	people	32. Nr of people trained		people
29. In Rural scattered	135,270	people	33. Nr of participants to other activities (workshops, seminars...)		people
30. In Peri-urban areas	84	people			
31. Total direct benef.	**158,354**	people	**35. Total direct beneficiaries:**		people

36. Population growth rate per year in project area: 3 %

37. Source of information used for demographic data: National Statistics Office

Economic characteristics of the project area

Source of income - Distribution (% of the total)

38. Agriculture (in %): 80%
39. Industry (in %):
40. Trade and commerce (in %): 15%
41. Other sources of income: 5

42. Estimated average Annual Income per capita in the project area: 113.33 Euros

43. Percentage of income spent on energy purposes: 34.1 %

Proportion of **population below $1** purchasing power parity (PPP) per day:

44. At the beginning of the project (in %): 40%
45. At the end of the project (foreseen): 10%

46. Number of **Companies** in the private sector in the project area at the start of the project: 4

47 Estimated **creation of new companies** in the target areas as a result of project outputs (foreseen): 12 com.

48. **Unemployment** rate amongst project beneficiaries (at start of project): 75%

49. **Jobs created** in the project area as a result of the project outputs (foreseen): 416 jobs

50. Sources of information used for economic characteristics of the project area:

Pre-feasibilty study report

Energy access data of the project area

	Yes/No	Current Coverage	Coverage foreseen
51. Access to Electricity (grid or non grid)	No		
52. Access to electricity from the grid	No		
53. Access to electricity from isolated system	No		25%
54. Access to biofuels	Yes	####	75%
55. Access to traditional fuels	Yes	####	85%

Distance from the project area to the current grid: 35 km

56. Sources of information used for energy data of the project area:

Pre-feasibility study report

ACP-EU ENERGY FACILITY - ANNEX 4 DETAILED PROPOSAL *Dossier No*
4.2- TECHNICAL INFORMATION

Demand forecast

1. Describe type of service foreseen	Provision of modern energy facilities						
2. Hours of supply - foreseen	5 hours per day						
Foreseen **connections at the end of project:**			Unit consumption per type of consumer			Demand forecast	
3. Nr of Households (domestic)	800	4. kWh per unit	0	5. Total kWh	80		
6. Nr of Commercial or industrial	862	7. kWh per unit	1	8. Total kWh	647		
9. Nr of Public (schools, hospitals...)		10. kWh per unit		11. Total kWh			
12. Others (Nr).	4	13. kWh per unit	15	14. Total kWh	60		
15. Total nr of connections at the end of project:	1,666	**16. Total Demand**	786.50 kWh				

Generation

Solar — 17. Solar insolation: 6 *kWh/(m²xday)* — 18. Data source for insolation: Mzuzu University

Photovoltaic (PV)

19. Size of solar PV array	1	*kW*
20. Annual energy output	1,800	***kWh***

Solar Thermal

21. Load		*kWh/day*
22. Service temperature		ºC
23. Area of the collectors		*m²*
24. Annual energy output		**kWh**

Hydro Power

Based on dams/reservoirs			**Based on "run off river"**		
25. Head of water (h)		m	30. Area through which the water passes	0	m²
26. Volume of Water flow pr second		m³	31. Velocity	0	m/s
27. Turbine efficiency		%	32. Calculated available power	275	kW
28. Calculated available power		kW	**33. Annual energy output in kWh**	**99,000**	**kWh**
29. Annual energy output in kWh		**kWh**			

34. Source of data used for water flow: Micro Hydro Design Manual -

Wind Power

35. Size of turbine	20 kW		37. Average annual wind speed	0.9	m/s
36. Efficiency factor of the wind turbine	80%		38. Rotor diameter of the wind turbine	2	m
39. Annual energy output in kWh	**172,800.00**	**kWh**			
40. Source of data used for wind speed	Meteorological Department				

Biomass / biofuels / biogas

41. Type of biomass energy	biogas	42. Service	cooking	43. Source of the biomass	other waste
44. Area size to be utilized for biomass		0.002	Ha		
45. Estimated available thermal power			kW_t	49. Estimated available electric power	kW_e
46. Hours of supply - foreseen per day		5	h	50. Hours of supply - foreseen per day	h
47. Annual energy output in kWh(t)			kWh_t	**51. Annual energy output in kWh(e)**	kWh_e
48. Source of data used	Mzuzu University				

Geothermal

52. Type of system:			55. Circulating yield:	m3 /h
53. Temperature of the hot water		ºC	56. Power base load	Kw
54. Depth of geothermal power station		m		
57. Annual energy output (kWh)		Kwh		
58. Source of data used				

Other sources of energy (incl. fossil fuels/hybrid systems)

59. Source of energy	other	61. Source of energy	
60. Annual energy output	kWh	**62. Annual energy output**	kWh

63. Total annual energy output (for all sources of energy) 273600 **kWh**

Transmission / Distribution

Rural and periurban electricity networks

Transmission / distribution network - constructed or rehabilitated:

64. Low Voltage	2.5 km		67. Voltage	0.23	kV
65. Medium Voltage	2 km		68. Voltage	0.4	kV
66. High Voltage	3 km		69. Voltage	11	kV
70. Total	7.5 km	71. People connected	800	people	

Energy Efficiency

72. Annual energy consumption in the project area: kWh — 73. Rate of en. efficiency seeked: %

Type of service	Yes/No	Sectors concerned			
74. cooking	Yes	77. housing	Yes	79. industrial sector	Yes
75. lighting	Yes	78. building	Yes	80. services	Yes
76. other	Maize Milling			81. other	

Only for Component 2 projects

82. Nr. of workshops/conferences/seminars:		84. Nr. of networks/associations foreseen:	
83. Nr of studies/publications:		85. Nr.of created or revised leg.acts/policies:	
		86. Other activities	

ACP-EU ENERGY FACILITY - ANNEX 4 DETAILED PROPOSAL
4.3- ECONOMIC AND FINANCIAL INFORMATION

Dossier No

Total Budget summary (from Annex 1 Application Form)

1. Human resources	508710	Euro	22%	13. Total cost per kWh:	
2. Travel	8333	Euro	0%		
3. Office equipement, vehicles and supplies	127300	Euro	6%	8.41	Euro
4. Local office / Action costs	169800	Euro	7%		
5. Other costs, services	67439	Euro	3%	14. Total cost per beneficiary	
6. Other		Euro			
7. Subtotal direct eligible costs of the action	881582	Euro	38%	14.52	Euro
8. Administrative costs	44079	Euro	2%		
9. Subcontracting related to construction activities	1374339	Euro	60%		
9.1 Works	46994	Euro	2%		
9.2 Supplies	1315655	Euro	57%		
9.3 Services	11689	Euro	1%		
10. Total (7+8+9)	2300000	Euro	100%		
11. Contingencies		Euro			
12. Total eligible costs of the Action (10+11)	2300000	Euro	100%		

Investment per component (from budget line nr 9 of the budget)

Investment per component (only costs from budget line nr 9)				Investment per type of technology used in generation (only costs from budget line nr 9)			
15. Generation	761803	Euro	33%	16. Solar (PV)	400630.8	Euro	17%
17. Transmission / Distributio	634006	Euro	28%	18. Solar (Thermal)		Euro	
19. Energy for cooking		Euro		20. Biomass	18754.17	Euro	1%
21. Efficiency/Consumption	25283	Euro	1%	22. Biofuel		Euro	
23. Framework Conditions	48148	Euro	2%	24. Wind	248758.2	Euro	11%
25. Others	239162	Euro	10%	26. Other renewables	730119.4	Euro	32%
				28. Fossil fuels		Euro	
27. Total	1708402	Euro	74%	29. Total generation costs	1398263	Euro	61%

Financial figures from operation of the system

Data from first year of operation of the system:

Tariff per consumer type:					Expected annual revenues	
30. Domestic (households)	0.04	Euro/kWh	31. Average kWh consumption per year	180 kWh	7	Euro
32. Commercial / industrial	0.04	Euro/kWh	33. Average kWh consumption per year	#### kWh	718	Euro
34. Others	0.04	Euro/kWh	35. Average kWh consumption per year	1260 kWh	50	Euro
				36. Other revenues:	3,100	Euro
38. O&M costs	417	Euro		**37. Total expected revenues**	**3,876**	Euro
39. Human Resources	300	Euro				
40. Consumables	400	Euro				
41. Other operation costs	480	Euro				
42. Amortization costs		Euro				
43. Other costs	600	Euro				
44. Total expected costs	2,197	Euro				

45. Revenues - costs first year of operation: 1,679 Euro

Cash Flow Projection (to be done in a separate file following Annex F - Ecofin guidance note):

46. Financial **discount rate** used for cash flow: %

47. Justification for discount rate selected:

48. Reference period used in Cash Flow: years

49. Justification for reference period selected:

50. IRR calculated %

51. NPV calculated Euro

Project Financing

	Name	Amount (€)	
52. Request to the EC	ACP-EU Energy Facility	1,702,000	74%
53. Applicant contribution:	MuREA	298,000	13%
54. Applicant/private sector contribution			
55. Final Beneficiaries contribution:			
56. Co-donor 1 (if applicable):	MEET	100,000	4%
57. Co-donor 2 (if applicable):		100,000	4%
58. Co-donor 3 (if applicable):	MMCT	100,000	4%
59. Co-donor 4 (if applicable):	CEPA		
60. Co-donor 5 (if applicable):			
61. Other Co-donors (if applicable):			
	Total	**2,300,000**	**Euros**

Annex 4: EXAMPLE OF ANNEX F (Water Facilities full application)

OVERVIEW

Dossier

Country-Reg of project	**Timor East**	**Pacific**
Title	**Improving Access to Water, Sanitation and Hygiene in Rural Schools and Communities Through Capacity Development**	
Duration (*months*)	36	
Location and GPS coordinates	*Remexio, Ermera, Railaco, Laclo, Laclubar, N.*	
Latitude		
Longitude		

Summary of project

The project is to accelerate the progress toward achieving the MDG 7 through increasing access to improved water sources in 30 rural communities and 20 schools in five districts in Timor Leste over three years. As a result national and district WASH personnel and community groups will be better able to sustain equitable access to, and use of, improved water sources and basic sanitation, and adopt improved hygiene practices. The main activities will be the following: capacity assessment and training of district WASH committees & sub-district WASH officials to achieve competency standards; development of national training modules; development of national WASH policies, construction/rehabilitation of community and school WASH facilities; training of WSMGs, PTAs, teachers, and other community-based persons to maintain and manage the systems and conduct hygiene promotion in communities and schools, respectively; promotion of community led approaches to sanitation and support for eliminating of open defecation; and sanitation marketing and private sector engagement.

Technologies

	DAC	Quantity
Protected spring	14031	
Public tap/stand pipe	14031	
Flush or pour flush to septic tank	14032	
Other (please specify)		
Other (please specify)		

Description (text 630 characters max):

30 protected spring and gravity piped water systems will be constructed to serve 30 communities (14,800 population); 20 primary schools will have water systems connected to host community system. Pour flush latrines will be constructed at 20 primary schools (4-8 per school). 30 communities will be supported to become Open Defecation Free.

Water & Sanitation coverage

Population in project area at project start		Drinking water coverage % Improved sources	Sanitation coverage % Improved facilities	**Average annual population growth**
Rural pop.	117,000	63.0%	40.0%	**3.3%**
Peri-urban pop.	0			
Total	117,000			

Population in project area at project end		Drinking water coverage % Improved sources	Sanitation coverage % Improved facilities
Rural pop.	124,849	70.0%	47.0%
Peri-urban pop.			
Total	124,849		

End Beneficiaries

	Tot. Nr Beneficiaries	men	women	children < 15 yrs
Drinking water	**14,800**	7,580	7,220	6,660
Sanitation facilities	**11,840**	6,064	5,776	5,328
Hygiene Promotion	**117,000**	59,927	57,073	52,650

water reflects pop'n of 30 communities, # sanitation reflects students in 20 schools, # hygiene promotion reflects population served by trained Family Health Volunteers

Note: Light yellow indicates click down choice

APPLICANT AND PARTNERS EXPERIENCE

Applicant

APPLICANT	EuropeAid ID nr	US-2008-GQP-2005215056			
Acronym & Name	UNICEF TL	United Nations Children's Fund Timor-Leste			
Legal Status	International Org.				
Year & Country of registration	1946	Timor East	Region	Pacific	

Past water - sanitation - hygiene experience in the Country or Region

Title of project	Budget €	Year of start
Health and Sanitation in East Timor	1,072,000	2001
Improving WES in Rural Areas in Timor-Leste	980,000	2005
Water and Environmental Sanitation Project	535,000	2006
Sanitation and Hygiene Behavioural Change Project	435,000	2008
Improving WASH Facilities in Child-Friendly Schools	407,000	2009

Local Partner

LOCAL PARTNER

Acronym & Name	AMAR	Amo Meio Ambiente Rural			
Legal Status	ACP NSA				
Year & Country of registration	2004	Timor East	Region	Pacific	

Past water - sanitation - hygiene experience in the Country or Region

Title of project	Budget €	Year of start
Water supply project in Caisabe village, Dili (NZ AID)	7,478	2004
Water supply project in Railako village, Ermera District (CIDA	8,036	2004
Water Supply Project, Liquica District (UNICEF)	8,097	2005
Water Supply Work in IDP Camps and Rural Communities	30,562	2006
Water Supply and Sanitation Project, Aileu District (UNICEF)	29,258	2009

Non Local Partner

NON LOCAL PARTNE

Acronym & Name					
Legal Status					
Year & Country of registration			Region		

Past water - sanitation - hygiene experience in the Country or Region

Title of project	Budget €	Year of start

Associate

ASSOCIATE

Acronym & Name	DNSAS	National Directorate for Water and Sanitation Services			
Legal Status	ACP Local authority				
Year & Country of registration	2002	Timor East	Region	Pacific	

Past water - sanitation - hygiene experience in the Country or Region

Title of project	Budget €	Year of start

Click button to add Partner or Associate

Add Local Partner | Add non Local Partner | Add Associate

Local Partner

LOCAL PARTNER

Acronym & Name	CPT	CENTRO PUPUH-IRA TIMOR		
Legal Status	ACP NSA			
Year & Country of registration	2002	Timor East	Region	Pacific

Past water - sanitation - hygiene experience in the Country or Region

Title of project	Budget €	Year of start
Water supply and environm ental health project, Aileu	94,595	2003
Repair of portable water infrastructure, Tutuala	34,952	2004
Water, Sanitaiton and Hygiene project (UNICEF)	41,511	2006
Improvement of Alas Water Supply System (RWSSP)	27,189	2008
Improvement of water systems of Health Centers, Ainaro	41,072	2009

Non Local Partner

NON LOCAL PARTNE

Acronym & Name				
Legal Status				
Year & Country of registration			Region	

Past water - sanitation - hygiene experience in the Country or Region

Title of project	Budget €	Year of start

Associate

ASSOCIATE

Acronym & Name	MoH	Ministry of Health		
Legal Status	ACP Local authority			
Year & Country of registration	2002	Timor East	Region	Pacific

Past water - sanitation - hygiene experience in the Country or Region

Title of project	Budget €	Year of start

Local Partner

LOCAL PARTNER

Acronym & Name	ETADEP	FUNDAÇÃO ETADEP		
Legal Status	ACP NSA			
Year & Country of registration	2001	Timor East	Region	Pacific

Past water - sanitation - hygiene experience in the Country or Region

Title of project	Budget €	Year of start
Supply and Sanitation Project in Baucau (CIDA funded) 200	40,734	2000
Water and Sanitation Project in Bobonaro (CWSSP)	86,408	2003
nitation Project in Baucau, Bobonaro & Ermera (CIDA funde	25,613	2004
Water and Sanitation Project in Bobonaro (CWSSP)	44,648	2005
Water and Sanitation Project in Bobonaro (RWSSP)	8,684	2008

Non Local Partner

NON LOCAL PARTNE

Acronym & Name				
Legal Status				
Year & Country of registration			Region	

Past water - sanitation - hygiene experience in the Country or Region

Title of project	Budget €	Year of start

Associate

ASSOCIATE

Acronym & Name	MoE	Ministry of Education		
Legal Status	ACP Local authority			
Year & Country of registration	2002	Timor East	Region	Pacific

Past water - sanitation - hygiene experience in the Country or Region

Title of project	Budget €	Year of start

Local Partner

LOCAL PARTNER

Acronym & Name	HIM	HABURAS ITA MORIS		
Legal Status	ACP NSA			
Year & Country of registration	2004	Timor East	Region	Pacific

Past water - sanitation - hygiene experience in the Country or Region

Title of project	Budget €	Year of start
Water supply and sanitation project in Ermera (UNICEF)	19,824	2006
Water supply and sanitation project in Ermera (UNICEF)	15,577	2008
Water supply and sanitation project in Ermera (UNICEF)	52,306	2009
Water supply and sanitation project in Ermera (UNICEF)	32,514	2010

Non Local Partner

NON LOCAL PARTNE

Acronym & Name				
Legal Status				
Year & Country of registration			Region	

Past water - sanitation - hygiene experience in the Country or Region

Title of project	Budget €	Year of start

Associate

ASSOCIATE

Acronym & Name				
Legal Status				
Year & Country of registration			Region	

Past water - sanitation - hygiene experience in the Country or Region

Title of project	Budget €	Year of start

Local Partner

LOCAL PARTNER

Acronym & Name	NATILES	NAROMAN TIMOR LESTE		
Legal Status	ACP NSA			
Year & Country of registration	2003	Timor East	Region	Pacific

Past water - sanitation - hygiene experience in the Country or Region

Title of project	Budget €	Year of start
Income generation programme (CIDA)	14,500	2006
Water supply and sanitation project, Hera, Dili (UNICEF)	56,532	2007
Social mobilization project (AusAID)	4,813	2008
Water supply system construction, Aileu (Japan)	16,257	2009
Rural water supply system, Railoco, Ermera (AusAID)	21,063	2009

Non Local Partner

NON LOCAL PARTNE

Acronym & Name				
Legal Status				
Year & Country of registration			Region	

Past water - sanitation - hygiene experience in the Country or Region

Title of project	Budget €	Year of start

Associate

ASSOCIATE

Acronym & Name				
Legal Status				
Year & Country of registration			Region	

Past water - sanitation - hygiene experience in the Country or Region

Title of project	Budget €	Year of start

Local Partner

LOCAL PARTNER

Acronym & Name	TLMDC	Timor Leste Media Development Centre		
Legal Status	ACP NSA			
Year & Country of registration	2005	Timor East	Region	Pacific

Past water - sanitation - hygiene experience in the Country or Region

Title of project	Budget €	Year of start
Pilot Communication Project - Manatuto	5,000	2005

Non Local Partner

NON LOCAL PARTNE

Acronym & Name				
Legal Status				
Year & Country of registration			Region	

Past water - sanitation - hygiene experience in the Country or Region

Title of project	Budget €	Year of start

Associate

ASSOCIATE

Acronym & Name				
Legal Status				
Year & Country of registration			Region	

Past water - sanitation - hygiene experience in the Country or Region

Title of project	Budget €	Year of start

BUDGET AND PROJECT FINANCING

Project Financing

	Name	Amount €	%
Applicant Financial contr	UNICEF	1,000,000	40.0
EU/EDF contribution sought in this application		1,500,000	60.0
Other EU Inst or EU MS			
Other organisations contr			
Overall Total		**2,500,000**	100.0

Budget broken down according the estimated cost per activity

The total cost of activities must be equal to the "subtotal direct eligible costs" in **Annex B Budget**

Activity	DAC Code	Amount €	%
Policy development, capacity assessment & training	14010 - Water se	200,898	8.6
Assess and train local WASH officials	14081 - Educatio	59,988	2.6
Design and construct 30 community water systems	14031 - Basic dri	1,207,274	51.7
Construction of school sanitation, CLTS promotion	14032 - Basic sa	427,713	18.3
Train health, workers, teacher, community groups in	12261 - Health ec	281,035	12.0
Monitoring and evaluation of WASH activities and	14010 - Water se	159,542	6.8
Subtotal direct eligible costs		**2,336,448.6**	100.0

Budget broken down costs to be incurred by (Applicant, each Partner & Associate)

	Name	Amount €	%
Applicant	UNICEF	1,685,789	72.2
Local Partner	AMAR, CPT, ETADEP, HIM, NATILES	562,880	24.1
Associate	TLMDC	47,400	2.0
Associate	National Directorate for Water and Sanitation Servces	17,500	0.8
Associate	Ministry of Health	18,000	0.8
Associate	Ministry of Education	4,800	0.2
Local Partner			
Subtotal direct eligible costs		**2,336,448.6**	100.0

Project cost breakdown per Year

	€ - Year 1	€ - Year 2	€ - Year 3	€ - Year 4	€ - Year 5
Human resources	281,549	279,272	279,272		
Travel	12,060	10,538	10,538		
Equipment and supplies	308,446	331,800	331,800		
Local Office	28,400	28,400	28,400		
Other costs, services	124,589	64,838	64,838		
Other	68,940	41,380	41,380		
Subtotal direct eligible costs	823,993	756,228	756,228		
Contingencies					
Administrative costs	57,679	52,936	52,936		
Total eligible costs	881,672	809,164	809,164		

Subcontracting

		€ - Year 1	€ - Year 2	€ - Year 3	€ - Year 4	€ - Year 5
Estimated	Works	108,000	81,000	81,000		
"	Supplies					
"	Services					
	Total	108,000	81,000	81,000		

Annex 5: ACP COUNTRIES AND REGIONS

ISO2	ISO3	Country	Region	ISO2	ISO3	Country	Region
AG	ATG	**Antigua & Barbuda**	C	CK	COK	**Cook Islands**	P
BS	BHS	**Bahamas**	C	FM	FSM	**Federated States of Micronesia**	P
BB	BRB	**Barbados**	C	FJ	FJI	**Fiji***	P
BZ	BLZ	**Belize**	C	KI	KIR	**Kiribati**	P
DM	DMA	**Commonwealth of Dominica**	C	MH	MHL	**Marshall Islands**	P
DO	DOM	**Dominican Republic**	C	NR	NRU	**Nauru**	P
GD	GRD	**Grenada**	C	NU	NIU	**Niue**	P
GY	GUY	**Guyana**	C	PW	PLW	**Palau**	P
HT	HTI	**Haiti**	C	PG	PNG	**Papua New Guinea**	P
JM	JAM	**Jamaica**	C	WS	WSM	**Samoa**	P
KN	KNA	**Saint Kitts and Nevis**	C	SB	SLB	**Solomon Islands**	P
LC	LCA	**Saint Lucia**	C	TP	TMP	**Timor Leste**	P
VC	VCT	**Saint Vincent and the Grenadines**	C	TO	TON	**Tonga**	P
SR	SUR	**Suriname**	C	TV	TUV	**Tuvalu**	P
TT	TTO	**Trinidad and Tobago**	C	VU	VUT	**Vanuatu**	P
BI	BDI	**Burundi**	CA	AO	AGO	**Angola**	SA
CM	CMR	**Cameroon**	CA	BW	BWA	**Botswana**	SA
CF	CAF	**Central African Republic**	CA	LS	LSO	**Lesotho**	SA
TD	TCD	**Chad**	CA	MW	MWI	**Malawi**	SA
CG	COG	**Congo (Brazzavile)**	CA	MZ	MOZ	**Mozambique**	SA
CD	COD	**Democratic Republic of Congo**	CA	NA	NAM	**Namibia**	SA
GA	GAB	**Gabon**	CA	ZA	ZAF	**South Africa***	SA
GQ	GNQ	**Guinea Equatoriale***	CA	SZ	SWZ	**Swaziland**	SA
RW	RWA	**Rwanda**	CA	ZM	ZMB	**Zambia**	SA
ST	STP	**Sao Tome and Principe**	CA	ZW	ZWE	**Zimbabwe***	SA
KM	COM	**Comores**	EA	BJ	BEN	**Benin**	WA
DJ	DJI	**Djibouti**	EA	BF	BFA	**Burkina Faso**	WA
ER	ERI	**Eritrea**	EA	CV	CPV	**Cape Verde**	WA
ET	ETH	**Ethiopia**	EA	GM	GMB	**Gambia**	WA
KE	KEN	**Kenya**	EA	GH	GHA	**Ghana**	WA
MG	MDG	**Madagascar***	EA	GW	GNB	**Guinea Bissau**	WA
MU	MUS	**Mauritius**	EA	GN	GIN	**Guinea Conakry***	WA
SC	SYC	**Seychelles**	EA	CI	CIV	**Ivory Coast**	WA
SO	SOM	**Somalia**	EA	LR	LBR	**Liberia**	WA
SD	SDN	**Sudan***	EA	ML	MLI	**Mali**	WA
TZ	TZA	**Tanzania**	EA	MR	MRT	**Mauritania**	WA
UG	UGA	**Uganda**	EA	NE	NER	**Niger***	WA
				NG	NGA	**Nigeria**	WA
* State actors not eligible as applicant or partner (+other special rules)				SN	SEN	**Senegal**	WA
				SL	SLE	**Sierra Leone**	WA
				TG	TGO	**Togo**	WA

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