Alexandria, Egypt

City Coordinator	LA Facilitator	Champion
Dr. Khaled Abuzeid Regional Water Resources Programme Manager CEDARE	Ahmed Essam and Lama El Hatow Programme Assistants, Water Resources Programme, CEDARE	

The city and its water resources

Alexandria City in the northern coast of Egypt is the most downstream city on the longest river in the world, the Nile River, with Egypt being the most downstream country on the Nile that is shared among 10 countries. Similar to the whole country of Egypt, the Nile River represents the main renewable source of water supplying over 95% of its water demand. Currently the City of Alexandria receives its urban water from the Nile. Currently inhabited by more than 4 million people, the city of Alexandria resides on the Mediterranean coast, which makes it a summer destination, increasing its population in the summer to 6 million people putting more pressure on the city's water demand. Although the city receives rainfall of about 200 mm/year, this storm water find its way into sewage systems, drains into the Mediterranean Sea without use, or seeps into the coastal groundwater aquifer through the little-left infiltration areas of the city. Most of the city is covered with potable water supply networks, but many peri-urban and informal settlements lack sewage/sanitation coverage. Most of the city sewage is at least primary or secondary treated, however potential uses of this treated wastewater are yet to be explored in line with the country's National Water Resources Plan.

Main water pressures and issues affecting Alexandria

Satisfying the increasing water demand, developing local water resources, collecting and separating storm water and making use of it, along with groundwater use, grey water recycling, reuse of treated wastewater, water demand management, allocating the appropriate water resources to the appropriate water uses, exploring other non-conventional water resources such as sea water or brackish groundwater desalination, and protecting water ways, and water bodies such as lake Maryout from pollution are some of the challenging water management issues that puts pressure on the city of Alexandria.

In the city of Alexandria there are 9 low-income, peri-urban areas that remain un- or under-served with water and sanitation services. Though there are city and governorate level plans for extending or up-grading services to these areas, the involvement of residents / users from these marginalized areas of the city has been limited.

A number of efforts are being exerted by the Egyptian Government to address the problems in Alexandria, such as:

1. The efforts of the Ministry of Housing in cooperation with Alexandria Company for Sanitation, to enhance the treatment and reuse of sanitary waste-water that is currently being dumped into water bodies.

2. The Governorate of Alexandria is exerting serious efforts towards the development plan of Alexandria and towards achieving efficient decision-making. Its true willingness to engage in wider dialogues with stakeholders is encouraging and reflecting the desire to achieve sustainable and popular accomplishments. A coordinating donors' activities' unit has been set up within the governorate.

3. The Governorate is also implementing the 'Informal Settlements Development Program', which reflects the serious confrontation of the ever-growing slums' expansion, represented by 30 informal settlements in Alexandria, which are inhabited by about 1.36 million inhabitants, as follows:
   - 9 in Al Montazah district (formal and informal);
   - 8 in Amiriya district (mostly informal);
   - 5 in East district (formal and informal),
   - 2 in Central district (formal and informal),
   - 5 in West district (mostly informal), and
   - 1 in Borg Al Arab Markaz and City

Alexandria enjoys a vibrant civil society represented by strong NGOs as well as an active elected public local council. Cooperation between these entities is strong and continued, which is considered an added strength to proper development. Furthermore, there is a noticeable and welcomed international donors' interest in Alexandria's development.

Alexandria LA establishment and Stakeholder engagement strategy

The learning alliance has already been established with representatives from all the sectors in Alexandria. These include representatives from Ministry of Housing, Alexandria Drinking Water Holding Company, Alexandria Sanitation Services Holding Company, Academic Research Institutes and universities, local NGOs, Alexandria Governorate, Environmental Agency of the Alexandria governorate, City coordinator, members of CEDARE, and representatives from the Ministry of Water Resources and Irrigation, Minstry of Health,. The ToR's for these representatives includes highlighting the challenges faced in Alexandria with respect to water-related issues, as well as ensuring dissemination of information between the different LA and stakeholders of all sectors in Alexandria. It is important to focus on IUWM and coordinate between parties to gather information from all sectors in Alexandria on resources, infrastructure, stakeholders, and demands of the people. Once this information is gathered, it is important for them to put guidelines for an IUWM plan to be developed and implemented in Alexandria. Rules and procedures that govern the functioning of the LA group are in effect, but need more time and effort to reach such clear agreements on the

commitments to be made by the SWITCH project and the participants. In terms of facilitation of the learning alliance, an LA facilitator and co-facilitator have been appointed for the city of Alexandria, as well as several other members of the CEDARE team who help in the LA facilitation.

Involvement in LA includes:

1. Ministry of Water Resources and Irrigation,
2. Ministry of Housing, Utilities & Urban Development,
3. Ministry of Agriculture and Land Reclamation,
4. Ministry of Health and Population,
5. Ministry of State for Environment Affairs,
6. Alexandria Governorate,
7. The Holding Company for Water and Sanitation Services,
8. Holding Company for Drinking Water in Alexandria,
9. Holding Company for Sanitation Services in Alexandria,
10. Professors in Universities and Research Centers,
11. NGOs.

The above mentioned directorates nominated one or two participants to be members in the LA Working Group, and to take the following tasks:

1. To coordinate between the represented directorate and the LA
2. To facilitate any requirements or data from the directorate needed for the project
3. To represent the directorate in the upcoming events (training, workshops, ect.)

The LA meetings are planned regularly every three months in the Alexandria Governorate. There is one that is took place on January 23rd, 2008 in Alexandria.

Overall LA objectives

An effective partnership for knowledge sharing in urban water management in Alexandria and Egypt. To support the development of the IUWM plan and demonstration activities, a learning alliance involving key city (but also national and neighborhood level) stakeholders would provide a platform to identify detailed research needs, undertake joint research activities and share results. It would also collate and make accessible existing knowledge and best practice, document case studies and accessible policy briefs targeted at decision makers (English and Arabic language), develop a city urban water management website and newsletter, and hold regular conferences, workshops and other events. The learning alliance would facilitate two key activities that have been provisionally identified:

a. IUWM planning
b. piloting development-scale IUWM approaches (demonstration site)

Communication between LA members is always there, especially by phone, emails, and official letters. There are occasional visits to Alexandria (meetings, training, workshops, etc.), as well as the regular LA meetings that take place every 3 months.

Due to their interrelated nature of work, such mechanisms allow continuous communication but there is always room for improvement of communication. For this reason, establishing an Alexandria City website is an optimum mechanism of disseminating information regarding the SWITCH project. The city website development was established soon to facilitate information among the various LA members and it is updated regularly with the recent events, final reports, news for the upcoming meetings and trainings and important links to most of Alexandria Stakeholders.

The address for this website is http://switchalex.wordpress.com, http://switch.cedare.int. A city poster was produced to document the Alexandria vision, scenarios, LA members, Challenges, needed research studies, objectives of the Alexandria LA and its progress thus far.

Monitoring and tracking mechanisms are in place, and used to measure how to approach the objectives. Whenever an activity is carried out, feedback is collected using a simple evaluation form, disseminated to the participants and returned for feedback on what was done and whether we are on the right track to achieve our goals. The Alexandria LA co-facilitator participated in the LA training workshop in Accra, Ghana on December 11-14, 2007, to enhance the mechanisms with respect to LA facilitation. The training focused on monitoring and evaluation to develop monitoring plans.

Process documentation techniques were used from the beginning, utilizing the different documentation mechanisms like writing articles and essays, tacking photos, and video recording of events to document the activities being done, however some of these mechanisms require more efforts in order to become more organized and representative. A article was written about the SWITCH project activities and progress in City of Alexandria concentrating about the demonstration project in Maawa El Sayadeen was published in Almasry Alyoum which is a local newspaper and a link to the article is available on Alexandria website. This was enhanced by members of the CEDARE team participated in the process documentation training in Lodz, Poland in 2007. Mostly changes have been documented by either writing reports or through photography since these two are quite feasible. Video recording documentation needs further practice in order to perfect its use as a documentation tool.

Three LA meetings took place in Alexandria from M13-24. 14th March 2007, 12th June 2007, and 23rd of January 2008. The meetings were intended to introduce the Alexandria LA to each other and begin assessing the situation of water supply and sewage facility in the city. These four meetings were very successful, and it was recommended to invite members from the private sector and other agencies to join the Learning Alliances. In the 3rd meeting on June 12th 2007, a panel was agreed upon in order to select a demonstration site in Alexandria according to the criteria. The meeting introduced new LA members, discussed what is expected from the SWITCH project in Alexandria, how can each member play a

very important role in the process of assessing the situation of water resources and sanitation services and facilities in the city, and it resulted in some assignments for each member to get ready for the next workshop on "Visioning and Scenario building for Alexandria IUWM plan" in July 2007.

Learning Alliance members goals and aspirations

Stakeholders are categorized in two main groups; primary and secondary. Primary stakeholders are the intended beneficiaries of the project, while secondary stakeholders are those who act as intermediaries. The two levels would assist in conducting the analysis pertaining to the management of water resources in Alexandria, and the analysis pertaining to the stakeholders' involvement in the SWITCH Project.

LA member	Issues, goals and aspirations
Ministry of Water Resources & Irrigation (MWRI), Egyptian Water Partnership (EWP), Universities, Research Institutes	**Supply optimization**, including assessments of surface and groundwater supplies, water balances, wastewater reuse, and environmental impacts of distribution and use options.
EWP, MWRI	**Demand management**, including cost-recovery policies, water use efficiency technologies, and decentralized water management authority.
Peri-Urban Communities, NGOs	**Equitable access** to water resources through participatory and transparent management, including support for effective water users association, involvement of marginalized groups, and consideration of gender issues.
EWP, MWRI, Ministry of Environment (MOE), Alexandria Sanitation Company (ASC), Governorate of Alexandria (GOA)	**Improved policy, regulatory and institutional frameworks**, such as the implementation of the polluter-pays principle, water quality norms and standards, and market-based regulatory mechanisms.
MWRI, GOA, EWP, ASC, Universities, Research Institutes	**Intersectoral approach** to decision-making, combining authority with responsibility for managing the water resource

Primary Stakeholders

- Alexandria Governorate (Governor, or assigned representative)
- Ministry of Water Resources and Irrigation (MWRI)
- Ministry of Housing, Utilities, and Urban Communities
- Drinking Water and Sanitation Holding Company for Egypt (under Ministry of Housing) (National Organization for Potable Water & Sanitary Drainage)
- Alexandria Holding Company for Drinking Water
- Alexandria Holding Company for Sanitary Drainage
- Ministry of Agriculture
- Egyptian Environmental Affairs Agency (EEAA)
- Ministry of Health
- Alexandria Local Council

Secondary Stakeholders & Special Interest Groups

- Center for Environment and Development in the Arab Region and Europe (CEDARE)
- NGO's (leading: Egyptian Water Partnership, Friends of the Environment, and Pioneers of the Environment)
- Research Community in Alexandria (University of Alexandria, National Institute for Ocean Sciences)
- Fisherman Authority
- Political parties (NDP representatives of Alexandria)
- Local community
- Lobby groups (Media and others)

The main interests for the different primary and secondary stakeholders were clarified in the stakeholder analysis report. The Stakeholder Analysis report for the city of Alexandria has been submitted however, it may require some modification. These modifications are being made and the report will be re-submitted soon. The stakeholders for Alexandria encompass participants from all sectors of society including the Ministries of Water Resources and Irrigation, Housing, Environment, Health, and Agriculture. It also encompasses members of the Governorate of Alexandria, the National Water and Wastewater Holding Company, Alexandria Drinking Water Company, Alexandria Wastewater Company, experts and professors from Alexandria University, local NGOs, political parties, and civil society participants. Each of these stakeholders have been assessed with respect to their resources (human, financial, etc.), influence, and involvement in the decision making process. These have all been analyzed and assessed within the Stakeholder Analysis report for the city of Alexandria.

Towards an IUWM Plan

This activity would support the Governorate and other key institutions to develop a plan for integrated urban water management up till 2017, and possibly a vision fo IUWM up till 2037, identifying scenarios, strategies and plans for more sustainable, less risk-prone and more equitable water management that supports city development. The plan would be consistent with the National Water Resources Management Plan (which envisions the development of local plans) and existing sector plans in Alexandria (water and sanitation master plans are currently being developed to 2037). However there is currently no integrated planning or innovative urban water management measures is taking place at the city scale. Implementation would depend on alignment and adding value (without duplicating existing plans and planning processes). SWITCH's role would be to provide an integrated planning methodology, framework/ principles, mentoring/ facilitation/ backstopping support etc. Potentially the planning methodology could be scaled up to other cities in Egypt.

The "Alexandria Integrated Urban Water Management (IUWM) Plan for year 2030) / A Vision for the Water Future of Alexandria" is envisaged to include futuristic thinking of the water supply and sanitation sector in Alexandria. It will look at how Alexandria can meet a large part of its future water demand locally

without depending mainly on Nile Waters as it will be difficult in the future to meet the growing demands with increasing demand in the upstream part of the Nile in Egypt. It will look at making use of rainfall harvesting and storm water usage in Alexandria which receives little rain but can help in filling the demand gap, at using groundwater while managing potential problems of salt water intrusion, with Alexandria being a coastal city, at water demand management measures that could be considered to reduce water requirements. It doesn't leave out the wastewater treatment and reuse options, the enforcement of regulations to prevent industrial pollution of water bodies.

SWITCH has been introduced to the city of Alexandria to set the stage for Alexandria to be among the leading cities in implementing Integrated Urban Water Management (IUWM). An IUWM long term plan will be developed. The IUWM plan will address current problems and issues of urban water management in Alexandria including lack of sanitation coverage, industrial pollution and challenges facing the supply of water to a city that is located at the end of the Nile River system, which is considered the main renewable water resource of Egypt that supplies more than 95% of its demand. The overall objective of SWITCH-LA in Alexandria is to provide a framework and tools and main guidelines for assist the city of Alexandria to produce and to implement an Integrated Urban Water Management (IUWM) plan. This plan will address the previous mentioned pressures in Alexandria and possible alternatives for solutions. It will try to build on the innovations developed in the SWITCH research activities and other demo cities, as well as those urban water management measures that will prove applicable for Alexandria.

This should all be done in parallel with investigating and utilizing other water resources that are available and feasible to use such as rainwater, groundwater, desalination, as well as reuse and recycled water resources. The aim is to not become solely dependant on the River Nile water, and integrate one or more of these resources where feasible into the Alexandria water network. This is all necessary for the "Integrated Urban Water Management plan" for the city of Alexandria which will be the main output result for the SWITCH project in Alexandria to face and overcome the rapid increase in water demand of the city by the year 2037.

Linkages of SWITCH with other regional/city water initiatives

The SWITCH Project has established links with several activities and initiatives in Alexandria including:

- National Water Resources Plan-NWRP (Egypt's IWRM Plan 2017)
- National Water MDGs Plan (2015)
- WSS Master Plans (2037)
- Lake Maryut Project
- "Alexandria Growth Pole" World Bank Project
- Governorate Advisory Committee on Storm Water Management

Alexandria IUWM Vision

The workshop on "Visioning and Scenario building for Alexandria IUWM plan" took place on 24-25 of July 2007 at Helnan Palestine hotel in Alexandria. This workshop was preceded by a short preparation session on the 23rd and was followed by an evaluation session on the 25th. The workshop was very successful in coming up with the initial statement of Alexandria's SWITCH project Vision, Objectives, Strategies, and different predicted scenarios. The exercises and workshop were extremely beneficial for all LA members present. The outputs agreed upon from this workshop include a vision statement and several initiatives aimed for year 2037. Alexandria's LA team now has an agreed-on vision which can be described as:

- We envision a proud water city where available water resources are managed in an integrated manner, with the participation of all citizens, and are used effectively for development within a framework of environmental sustainability
- Where all citizens have access to high quality (meeting national norms), reliable, sustainable, and affordable water and sanitation services and benefit from a clean and healthy environment
    A. A clean and well managed aquatic environment (coastal and lake Maryut?)
    B. Provided by a renewed and upgraded network
    C. With full separation of sanitation and (agricultural and rainwater) drainage networks
    D. With treatment and reuse of agricultural, industrial, and domestic wastewater
    E. With agricultural water use managed as part of a city wide water management plan

SWITCH Demonstration activities

Development of Sustainable Neighborhood-scale IUWM in Fishing Village

A proposal was prepared to be submitted in month 24, The purpose of the demo project is to move towards a closed loop systems that minimizes water use, wastewater reuse, improves aesthetics and public health, include institutional and governance systems, and are feasibly operational, and financially viable. The project will involve piloting of the most appropriate technologies and strategies for water sensitive design including decentralized wastewater treatment, water demand management, rainwater harvesting and water reuse. SWITCH's support to this demonstration site is imperative to promote more sustainable service delivery and improved urban development in this sensitive environment to reduce the burden of new development on water resources, utilities and environment. In this area, SWITCH will focus facilitating planning of upgraded basic infrastructure (water, sewerage and drainage), and possibly solid waste management to protect open water bodies such as Lake Maryout from pollution.

A site selection panel of LA members was chosen to visit several sites to select an appropriate demonstration site according to the criteria imposed. A decision was made to select the fishing village (Maa'wa Elsayadien) as Alexandria's demonstration site. Information pertaining to this specific area, including water and sanitation services, was collected but needs more details, verification, and fine-tuning. Stakeholder mapping within the fishing village has took place as it is a component of the social inclusion survey that was accomplished there. Options including a questionnaire survey had enabled us to determine the key stakeholders within this community and the qualified individuals within that community, and their further involvement with the project. This questionnaire has been completed in order to map the stakeholders and representatives of the community, as well as assess their needs as a society. It was important to select individuals who are qualified and well educated to be able to better represent the local community in the LA. The survey questionnaire is in progress.

This fishing village is a slum area that is currently without adequate official and community developed sanitary system. Characteristics of the fishing village include:

- It's area is about 65 feddan ~ 273,000 m^2
- The eastern boundary is: the highway entrance
- The western boundary is: lake Maryut
- The northern boundary is: Tarek St.
- The southern boundary is: Elkabbary road
- Number of residents: 10,564

Sanitation services: There is a random sanitation service done with the public's efforts. The main roads contain sanitation pipe networks however the smaller more narrow roads do not, due to the nature of their narrowness and the slope elevation of these inner roads. Unconventional sanitation systems need to be explored here. The existing sanitation network is connected to the Gharbeia Wastewater treatment Plant.

Water services: There is an already existing water supply network to the majority of the village with 95% water coverage. However there are some areas that are still uncovered. There are 1272 households that receive water. Water quality and availability appear to not be a problem, however changing the behavior of dealing with water as an important resource would be beneficial. Pipes of sizes 4 inch and 6 inch diameters need maintenance in network. Maintenance needs to be done to prevent losses in the network due to connection problems and to detect water theft in the system.

Buildings & population: The majority of the households are small buildings of 1 to 2 floors, but the area is of controllable size, and of reasonable population. The fishing village has been an area for 2 or 3 previous service projects done by foreign agencies, and non-governmental organizations.

Innovative features/science:
Unconventional urban sanitation systems will be implemented and utilized in the fishing village due to its complex nature. A feasibility study will be performed on the area to see what alternative urban sanitation system is the most appropriate, and how best to implement it in this area.

Potential impact:

1. Reducing the disposal of sewage and pollution into Lake Maryout
2. Improving sanitation services by construction of new alternative technologies of wastewater collection
3. Treatment of wastewater in nearby wastewater treatment plant
4. Increase water availability for agriculture by reuse of treated wastewater
5. Improving livelihood of people in the village

Relationship to LA – evidence of demand:
Members of the LA have in fact been the ones that researched possible locations of demonstration sites in Alexandria based on the area's demand and its fitting with the criteria imposed. Specific criteria for the demonstration site, was imposed on the selection committee comprised of LA members. LA members have been involved in the decision making process for the demo site and their response was very positive.

Plans/ideas for scaling up:
This demonstration site will act as a pilot project for future projects in other sites around Alexandria and Egypt. A policy briefing paper with the outcomes of the demonstration project, along with its strengths and weaknesses will be compiled at the end of the project to be used for future areas in Egypt.

Co-funding confirmation:
The Alexandria Governorate and the Alexandria wastewater company have indicated willingness to share in the costs and especially to cover the installation of sewage networks and connections to households and to transport the sewage to the closest treatment facility.

Alexandria Demonstration Project Budget Request

Year	Partner	Budget (EUR)	Matching Fund Organization (name)	Budget (EUR)	Total Budget (EUR)
2006	-	-	-	-	-
2007	-	-	-	-	-
2008	-	-	-	-	-
2009	CEDARE, IRC, UNESCO-IHE	**120,000**	Water Company Alexandria, Wastewater Company Alexandria, Alexandria Governorate	213,000	333,000
2010 – Feb. 2011	CEDARE, IRC, UNESCO-IHE	**91,789**	Water Company Alexandria, Wastewater Company Alexandria, Alexandria Governorate	180,323	272,112
Total	CEDARE, IRC, UNESCO-IHE	**211,789**	Water Company Alexandria, Wastewater Company Alexandria, Alexandria Governorate	393,323	605,112

SWITH relation to workpackages

Workpackage 1.1 (See also D6.2.14)
Demo site feasibility study
Feasibility Study Components
The study involves three tasks

1. To assess the communities' preference and interest in alternative water management, their willingness to manage and/or invest in these options (Social Inclusion Work).
2. To assess the current demands for water for different purposes and the household specifics of water and sanitation (i.e. plumbing, storage, pipe condition, water quality, etc)
3. Based on results on community consultation to analyze potential options identified by the community for either water supply and/or sanitation. .

Task 1 - Social study of residents
A Baseline Survey report was produced with the cooperation of CEDARE and GUEL. The report encompassed the existing conditions of the villagers from a socio-economic perspective, and paved the way for the assessment and analysis of the technical interventions.
Although the majority of Task 1 has already been completed with the SI field visits, there still is an important component involved. Upon assessment and selection of interventions for the demo site, it has been recommended that a social inclusion workshop take place in the site to relay to the villagers what these interventions are and to get their feedback upon it. This however will take place upon the selection of possible interventions and discussion with the LA members. The workshop will also be the first time to unite the LA members and the villagers together.

Deliverable:

- Baseline Survey Report – Mid September 2008.
- Social Inclusion Workshop – Upon selection of interventions (estimated Feb. 09)

Task 2 - Baseline information for Option analysis
Preliminary information was obtained during an Introductory Meeting with Maawa El Sayadeen Leaders on Sunday 13/4/2008 and further information gathered during the SI meetings during the week of June 21-26, 2008.

A Masters student (Mr. Ibrahim Shouk under the supervision of Mr. Adrian Mels) and CEDARE from Wageningen University visited Alexandria in the end of October 2008 for 4 weeks to assist the sanitation specialist in Task 2 and 3 (the assessment of existing and possible sanitation interventions in the demo site). At this point the sanitation specialist will have already collected data on the site and thus they will be able to together assess the feasibility of each intervention within the site.

Task 2 at this point has been completed.

Task 3 – Option analysis

A number of possible scenarios are mentioned. As part of Task 1 these scenarios were discussed with the local community and the local community leaders. The scenarios are mainly to get their response and identify their interests and needs. Modifications of the scenarios could be made, based on this community consultation in the Social Inclusion Workshop. The assessment of these interventions was done here in Task 3 by the technical specialists.

1. Sanitation Specialist

Description of Work

Investigate **potential intervention** at site:

- Greywater recycling in site
- Separation of greywater from blackwater (devices)
- Use of greywater without treatment to be used in applications of toilet flushing, irrigation, etc.
- Potential for rainwater harvesting from rooftops collection devices (gravity fed systems, low cost)
- Allow for collected rainwater to be incorporated in greywater usage.
- Use of treatment ponds (small version of constructed wetlands) with reed beds from Lake Maryout as a small-scale treatment system for wastewater.
- Treated greywater from treatment pond may be used in showering, bathing, washing laundry, etc.

2. Urban Planning/Water Supply Specialist

Description of Work

Investigate **potential intervention** at site:

- Application of international good practices in water loss management in the water reticulation system in the zone
- Water demand measures at site
- Water saving devices in public buildings (taps, etc.)
- Water meters installed in households or public buildings
- Potential for servicing remaining 25% of village with water supply

Deliverables:

1. Report by the Sanitation specialist on the information above.
2. Report by the Urban Planning/Water Supply Specialist

After consulting the community, 2 or 3 scenarios can be worked out in more detail. This could be done by CEDARE, Wageningen University, and WEDC in close cooperation. The analysis will include indicators like an assessment of investment and operational costs, environmental indicators like energy use, water use and saving, etc. and a public health analysis. Wageningen University is developing a technology selection tool that could be used for this purpose.

Task 3 will produce a report with detailed analysis of 2-3 feasible scenarios in a format that helps in making the final decision for one scenario.

POTENTIAL TECHNICAL INTERVENTIONS

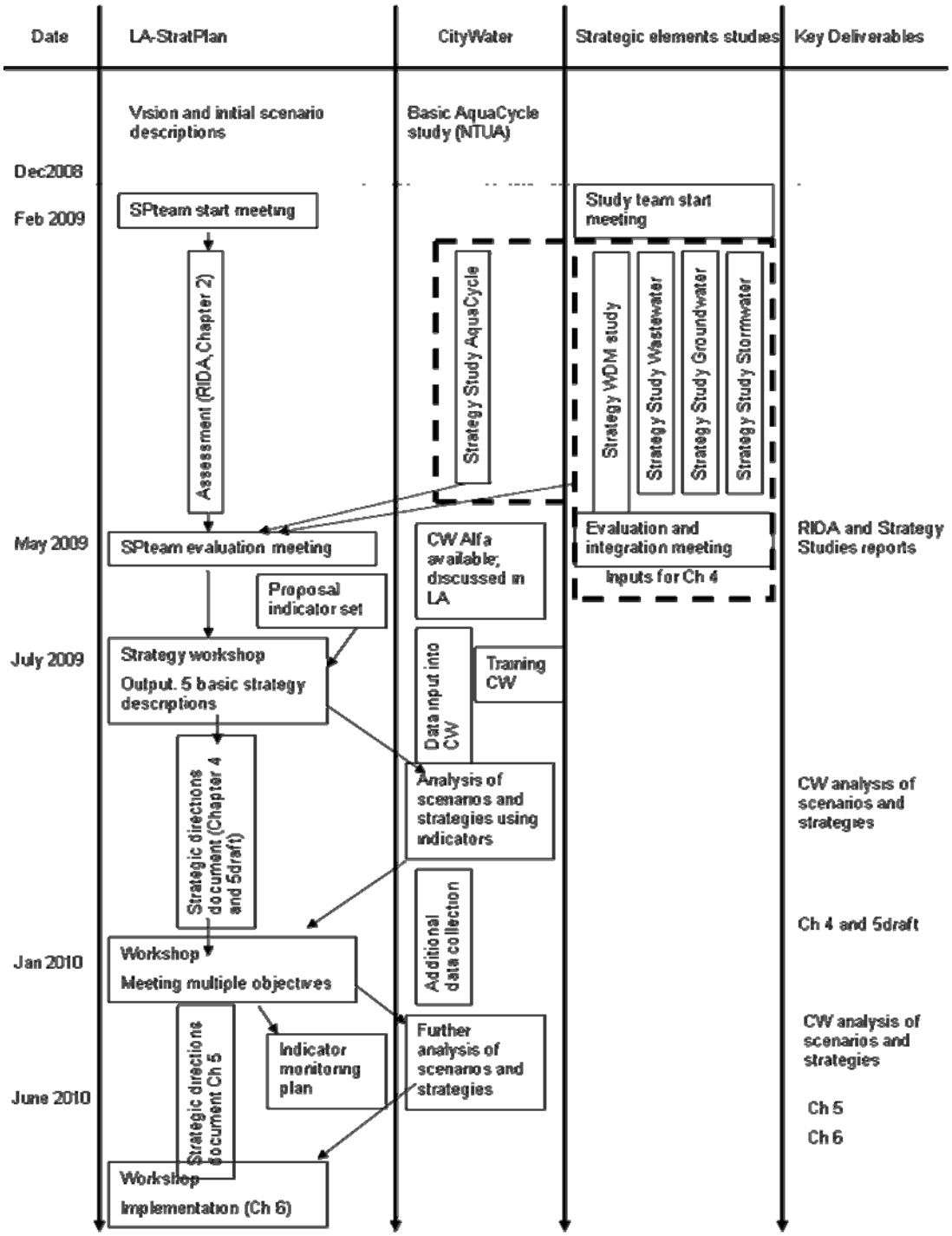
1. WDM measures in public buildings in demo site.
2. Rain water collection in roofs or nearby constructions and used for landscaping functions or amenity
3. Support to improve existing connections and prepare and inventory and sewer map of the area
4. Green roofs (Olive trees, growth of vegetables) at household level
5. Separation of Black water (treated at WWTP) and grey water (treated on-site) and used for landscaping functions.
6. Cascading at household levels. Use of rain water for wash clothing or toilets or toilets and reuse water
7. Rehabilitation of a portion of the lake and development of aquaculture activities
8. Cooling systems using ground water

IUWM Planning Component:

CEDARE will work with Learning Alliance to define vision, sustainability indicators and scenarios for future urban water management in Alexandria. This will include analysis of existing plans and agree on the concept, scope of work, and roles/responsibilities for an IUWM plan at city level, an agreed for an IUWM plan and IUWM plans being put on national policy agenda. Life cycle assessment will build on a conceptual model of the city to quantify overall environmental impact of the urban water system.

There will be 3 more workshops till month 60 for the process of IUWM planning. It is noteworthy here to mention that activities under theme 1 here also collide with some new activities under WP 6.2. The additional funding requested under WP 6.2 is designated to cover these costs as well as the IUWM planning process.

The budget-partners in this WP have resources to produce the deliverables, but not necessarily for the workshops. That is why additional funding is requested under wp6.2 for these workshops. The workshops are part of a process that leads to the production of a new city strategy. This city strategy will be a worked-out strategic plan indicating the strategic direction that water management in the city should take. Both the strategic plan and the strategic direction should be based on research and demonstration results from the SWITCH project. The translation of these results into a strategy is one of the actions required. To coordinate a fully worked-out strategic plan much more resources are needed, at least one full time senior person, with supporting staff and inputs from the LA institutions.


Date
LA-StratPlan
CityWater
Strategic elements studies
Key Deliverables
Vision and initial scenario descriptions
Basic AquaCycle study (NTUA)
Dec2008
Feb 2009
SPteam start meeting
Assessment (RIDA,Chapter 2)
Study team start meeting
Strategy Study AquaCycle
Strategy WDM study
Strategy Study Wastewater
Strategy Study Groundwater
Strategy Study Stormwater
May 2009
SPteam evaluation meeting
CW Alfa available; discussed in LA
Evaluation and integration meeting
Inputs for Ch 4
RIDA and Strategy Studies reports
Proposal indicator set
July 2009
Strategy workshop
Output. 5 basic strategy descriptions
Data input into CW
Training CW
Strategic directions document (Chapter 4 and 5draft)
Analysis of scenarios and strategies using indicators
CW analysis of scenarios and strategies
Additional data collection
Ch 4 and 5draft
Jan 2010
Workshop
Meeting multiple objectives
Strategic directions document Ch 5
Indicator monitoring plan
Further analysis of scenarios and strategies
CW analysis of scenarios and strategies
June 2010
Ch 5
Ch 6
Workshop
Implementation (Ch 6)

Workpackage 3.1 (Water Demand Management)

CEDARE provided a training in November 2007 on Water Demand Management. Part 2 of this training took place in May 2008. In between the two trainings, data was collected and compiled by the participants so that an assessment of the situation can be made, and thus a comprehensive look at how to proceed in WDM from now on. These trainings was attended by middle-management representatives from the water companies and wastewater companies of all governorates across Egypt, as well as representatives from the Ministries of Water Resources and Irrigation, and Housing. The training also had included members of the Alexandria learning alliance. It provided training in end-use analysis, least-cost planning and demand management planning best practice. It gave a clear view on the reality of the data gaps that need to be collected in order to start a good water demand management cycle in Alexandria, as well as in the other governorates. The second component of the "Water Demand Management" Training culminated the exercises for 'water demand management' as well as incorporated all the missing data gaps that need to be assessed when compiling an Integrated Urban Water Management (IUWM) Plan.

Deliverables for Workpackage 3.1

D.3.1

1. The second component of Water Demand Management training took place in May 2008.
2. Process Documentation is in progress during and throughout the trainings.
3. A study in collaboration with theme 1 and D6.2.14 will be produced under D6.2.14 on WDM in Alexandria. Data and methods obtained from the trainings will be used to help the contents of this report. This study is aimed to enhance the progression of the IUWM Plan in Alexandria.
4. Materials CD and distribution to LA and other participants

Workpackage 6.1 (Institutional Change)

CEDARE is about to complete an institutional mapping assessment for the City of Alexandria as a whole, including governance issues with respect to legal frameworks of organizations and their liabilities. Institutional mapping assessment requires training of personnel to fulfill such a task and clear and explicit criteria need to be labeled for this task.

Deliverables for Workpackage 6.1

D6.1.2

- CEDARE has prepared an institutional mapping report which will build upon the Stakeholder Analysis Report in Alexandria.
- Preparation of TOR for Alexandria Institutional mapping was processed for the institutional mapping report which will build upon the Stakeholder Analysis Report in Alexandria.

D6.1.5

- CEDARE has contributed to a better understanding between the stakeholders and the institutions for cooperation and coordination with the LA to promote the

IUWM Plan and work towards it through several LA meetings where institutional rules have been clarified and activities and plans of different institutional have been shared.

- CEDARE has reviewed a series of papers on institutional aspects for communication and enhancement of IUWM including:
  1. Communication for Social Change: An Integrated Model for Measuring the Process and Its Outcomes, by Maria Elena Figueroa, D. Lawrence Kincaid, Manju Rani, Gary Lewis.
  2. Governance: Literature Review, by Colin Green
  3. Mapping the field: the landscapes of governance, by Colin Green
  4. Institutional Maps, by Colin Green.
  5. Where are Institutions? By Geoffrey M. Hodgson
  6. Overview: the Watertime project and the construction of the final recommendations and decision aid, by David Hall
  7. The New Institutional Economics of India's Water Policy, by Tushaar Shah
- CEDARE has managed to agree with the LA and negotiate with the Alexandria Governorate to formalize the role of the LA as an advisory committee to guide in the IUWM.

D6.1.6

- This report has been conducted under D6.2.14 to work towards good governance for an IUWM Plan. This will be prepared in year 4 and 5 of the project.

Workpackage 6.2 (Learning Alliances)

Water Awareness Event: March 2008

This event had coincided with World Water Day, and had been held on two separate days. The first day was held in collaboration with the Ministry of Water Resources and Irrigation (MWRI) at the Ministry on the 22nd, while the second day was held in Sawy Cultural Center in collaboration with the Egyptian Water Partnership (EWP) NGO on the 24th. Both events were targeting the end users with special emphasis on women and children. The two days encompassed a series of events such as skits or a show on water conservation behavior mechanisms, as well as simulated Parliament for Water by children discussing water issues. The SWITCH project was publicized in this event through the dissemination material that was given away at both events. Packages with water conservation material will be produced and disseminated for sharing among the end users in these events. The SWITCH logo was placed on these packages and information on the SWITCH project as well as the local work in Alexandria has been provided in these packages.

Deliverables for Workpackage 6.2

D6.2.4 Reports on recruitment and training of LA teams (month 6)

- Recruitment of LA took place in January 2007.
- An LA Training took place in CEDARE, Egypt in January 2007.
- The LA facilitator attended an LA training in Lodz, Poland in July 2007.
- The LA co-facilitator attended an LA training in Accra, Ghana in December 2007.

D6.2.5 Institutional analyses focused on the challenges in working towards a paradigm shift and institutional change within each demonstration city (month 6-9)

- Institutions and Stakeholders focused on working towards change within Alexandria and the demo site. (An IUWM Plan)

D6.2.6 Reports on the formalization of the LAs in all demo cities (month 6-12)

- Report on formation in city story
- Stakeholder Analysis report is complete

D6.2.7 Reports summarizing research needs and opportunities for effective research and demonstration activities (month 6-18).

- Technical and Financial Proposal for the Demonstration Site complete with all interventions and budgets needed to fulfill the interventions.
- Identification of research needs for IUWM plan in city story
- Identification of research opportunities for IUWM in Aquacycle

D6.2.8 Regular reports on research activities and related learning and uptake within the LAs (quarterly), including ‚road maps'.

- Visioning Workshop took place in Alexandria in July 2007
- Regular LA meeting reports completed for the following meetings.
- Alexandria LA Regional Partners Meetings

D6.2.9 Regular reports on demonstration activities and related learning and uptake within the LAs (quarterly)

- LA Progress reports of work achieved to that point.

D6.2.11 Extensive process documentation (accessible through the project internet platforms)

- Process documentation complete for trainings, meetings, and workshops.
- SWITCH Alexandria website launched and active. http://switchalex.wordpress.com , http://switch.cedare.int

D6.2.12 Guidelines for learning and innovation in the context of IUWM (Month 4 draft and month 60 final)

- Travel between the cities should create information exchange and learning and innovation within the context of IUWM.
- Media coverage of SWITCH project:
    - Press releases of ALL trainings and workshops done so far
    - TV Interview with BEATTY environment Channel on SWITCH project
    - TV Interview with Alex TV on SWITCH project
    - Radio coverage on SWITCH project
    - Film on Delta Connecting Cities to be shown in WWF5. (Climate Change in Alexandria)

D6.2.13 Journal papers on analysis of LA learning processes (5 by Month 60)

- CEDARE contributed and co-authored a paper written with IRC on Alexandria's city assessment of the LA learning process.

NEW DELIVERABLE: D6.2.14 Formulation of an Integrated Urban Water Management (IUWM) Plan for the City of Alexandria (by Month 60). Deliverable achieved in coordination and collaboration with theme 1 specifically wp 1.1 and 1.2, with partners from these workpackages. The lead partner of this deliverable will be CEDARE, with close cooperation and collaboration from IRC, and NTUA. Budget for this deliverable seen further down in document.

The 6 studies would kick-off with a start meeting in Februrary 2009. Each study is carried out by a team consisting of:

- International coordinator (time input 2 weeks in Egypt for start and evaluation meeting) and 1 week preparation time at their home institution
- 2 subject specialists from LA partners (time input 2 months)
- CEDARE support staff

The topics of the studies are:

- AquaCycle study into water balance
- Water demand and supply study based on end-use analysis
- Groundwater management
- Stormwater management
- Wastewater management
- Institutional analysis

The international coordinators for the studies are (this is a suggestion; people not yet contacted):

- Dionysis Assimacopolous (NTUA)
- Sam Kayaga (WEDC)
- Andrew Maeng (IHE)
- Lian Scholes (Middlesex)
- Claudia Agudelo (WUR)/Peter van der Steen (IHE)
- Emanuelle Lobina

The suggested ToR for the studies:

- Provide review of current situation in the sub-sector under study
- Prepare SWOT for the sub-sector under study
- Identify (SWITCH) innovations as options for Alexandria
- Identify and describe synergies that could be achieved by integrated management of the subsectors
- Formulate recommendations to the SP team

The duration of each study would me maximum 2.5 months. The expenses for the Egyptian specialists would be covered from the general SWITCH budget (via extra allocation to CEDARE). The costs of the international coordinators in principle should be paid for from their existing budgets. If that is not possible a request for additional funding can be made to the CMU.

The output of the study is a report. The role of the subject specialists is to collect (secondary) data, to carry out the SWOT and to write the document. The role of the international coordinator is to guide the specialists, to provide information on (SWITCH) innovations, to review the draft document. A more detailed ToR and output description will be prepared at a later stage.

Components:

C6.2.14.1 Framework for IUWM Plan

- CityWater and AquaCycle and DSS development Trainings in Alexandria. TheWRA and DSS work should last till M60.
- Three workshops from Month 37 till Month 60 on City Water and IUWM planning (See also above description of workshops in theme 1.1).

C6.2.14.2 Research and studies on storm-water potential, wastewater reuse, water demand management, groundwater use, aquacycle study, and institutional mapping (6 research studies to be completed by M60).

Training and capacity development. A training and capacity development programme be carried out that builds capacity within the LA in the development and operation of DSS that can be used as one mechanism of embedding integrated urban water management in Alexandria.

CEDARE is also willing to host two training courses, one on urban planning module and anther on natural treatment systems which are assigned to be between June and December 2009 in Egypt .

Workpackage 6.3 (Social Inclusion)

CEDARE will link with work packages 6.2 (Learning Alliances), 6.4 (Finance & Cost Recovery), and 1.1 (Sustainability Indicators) to identify all the stakeholder groups, with specific attention to those groups currently under-served, for improved integrated urban water management and to conduct a participatory needs identification and prioritization with those groups. Based on the outcomes of the prioritization activity, to plan pro-poor measures that seek to enhance the opportunities for these stakeholders' participation in the Learning Alliance decision making processes and to develop a locally tailored assessment methodology for measuring the impact of the pro-poor measures with regards to technical, economic, social, environmental, etc indicators. Social inclusion will be focused in the demonstration site in Alexandria, being the Fishing Village of Ma'awa el Sayadeen. The areas of potential that will be explored there include:

- Making use of rainfall harvesting and storm water usage in Alexandria.
- Making use of groundwater while managing potential problems of salt water intrusion.
- Water demand management measures that could be considered to reduce water requirements.
- Wastewater treatment and reuse options
- The enforcement of regulations to prevent industrial pollution of water bodies.
- Emphasis on ensuring that the poor are served;
- Commercial viability of utilities;
- Separation of provider and regulator;
- Increasing role of the private sector through a variety of methods, ranging from management contracts to full privatization;
- Developing approaches which distinguish between the large city and the peri-urban areas;
- Emphasis on transparency of process
- Reforming legal and institutional frameworks;

- Capacity building for regulators;
- Promote better policy, regulatory, and institutional frameworks for sustainable environmental management;
- Greater attention to rights and market-based instruments;
- Attention to possible climate change impacts;
- Promotion of Strategic Environmental Assessments to move "upstream" in the decision-making cycle;
- Promoting environmentally and socially sustainable private sector development;
- Focusing on the positive linkages between poverty reduction and environmental protection;

Deliverables for Workpackage 6.3

D6.3.1 Baseline reports on current water situation in demonstration project areas including: levels of cost recovery and current tariffs; data on access to, use of and control over (e.g. positions in management and decisions about use, payment, etc) services by women, poor, children, and other vulnerable or marginalized groups – including also information about whether these issues are currently measured, included in planning for water services, and assessed and monitored in the demonstration cities (M6)

- A Baseline Survey was investigated on the demo site, and a baseline report was written with the outcomes and conclusions of this survey. (complete)

D6.3.2 Case studies on selected approaches or methods to optimize social inclusion (M12)

- Case Studies investigated and report compiled, written and approval taken on report. (Complete).

D6.3.3 Experiences and learning are shared within and among stakeholders in participating cities via range of media including: project website, flyers, workshop reports, guidelines, video/audio documentation, etc (linked to Work Package 0.2 Dissemination and Training)

- SWITCH Alexandria website launched and active. http://switchalex.wordpress.com, http://switch.cedare.int
  - Documents will gradually be loaded onto the Internet for all to view.
- Documentation of trainings and workshops complete.

D6.3.4 Process documentation on how Learning Alliances facilitated the development of adaptive, socially inclusive, management actions (linked to WP 1.2 Access to and use of Knowledge and Dissemination)

- Technical and Financial Proposal of Demo Site Report based on Social Inclusion (in progress).
- Process documentation is in progress.

D6.3.5 Report on training Learning Alliance members and the research teams on socially inclusive, participatory planning and management (Participatory Planning Cycle Management and Qualitative Information Systems methodology) – IRC together with local counterpart.

- A Social Inclusion Workshop will be done in February 2009 with all the LA members and participating bodies.
- A report on the Workshop will be compiled for documentation.

- A Situation Analysis report was compiled and written. The review of this report is still in progress.

Workpackage 6.4

Deliverables for Workpackage 6.4

D6.4.1 A conceptual framework for evaluating the financial side of the relevant infrastructure in the demo projects and selected cities.

- Discussed ToR with Emanul and Rachel
- Regional partner will be working on this deliverable with support from CEDARE.
- CEDARE has reviewed a series of papers for communication and enhancement of IUWM including**:**
  1. Water, Ethics, and Economics, by Colin Green
  2. Is water Different, by Colin Green
  3. The New Institutional Economics of India's Water Policy, by Tushaar Shah

D6.4.2 Reports on the demo projects and selected cities on the different ways of financing the relevant infrastructure and the cost recovery system chosen.

- Discussed with wastewater company and governmental on cost sharing prepared proposed
- Regional partner will be working on this deliverable with support from CEDARE.

D6.4.3 A study of the institutional arrangements chosen in the different demo projects and selected cities to obtain finance and to assure cost recovery

- Regional partner will be working on this deliverable with support from CEDARE.

D6.4.4 A comparative study on different financial approaches and instruments used and the cost recovery systems put in place and their success.

- Regional partner will be working on this deliverable with support from CEDARE.

Achievements in all workpackages from M25 to M36 (Feb. 08 – Jan. 09)

Achievements from M25-36				
Activity	**Specific objective**	**Task**	**Deliverable Number**	**Date Achieved**
Water Awareness Event	(public awareness)	Disseminated awareness packages to children and performed play on water behavioral patterns	D6.2.11/6.2.12	March 22 and 24 2008
Set up SWITCH Alexandria office	Office for LA facilitator based in Alexandria.	Prepare equipment for LA office (PC, phone, fax, desk, internet, etc.)	D6.2.3	March 2008
Update Alexandria SWITCH City Website			D6.2.11/6.2.12	April 2008
2nd Component	Complete WDM	Provide	D3.1	May 18- 20

of the WDM Training	Training of Professionals, Get Preliminary Indications on WDM Potential in Cities	Training, Compile WDM preliminary data, Analyze data, Recommend best WDM measures for cities		2008
5th and 6th LA Meeting Discuss WDM measures	Discussed WDM Measures in Alex, Discuss demonstration activities and further research needed.	TOR for WDM Study in Alexandria	D6.2.8/6.2.9	May 20 2008 (combined with WDM training)
WDM Training - Documentation			D3.2 /3.3	May 2008
Demo Site Feasibility Study Proposal	Possible technical interventions in demo site.		D6.3.4/D6.2.7	May 2008
Social Inclusion work in Demo Site	Field work and meetings with villagers	.	D6.3.4	June 2008
TOR for Institutional Mapping Analysis	Place objectives for report and determine who will be on the taskforce		D6.1.2	June 2008
Report on WDM in Alexandria	Specific Study and research to Alexandria This correlates to specific outputs from WDM trainings.	ONGOING	D6.2.7/D3.2	Began June 2008
Report with IRC on Alexandria City Assessment	Assessment of Alexandria's LA approach.	In review	D6.3.4/D6.2.13	August 2008
Stockholm World Water Week	Sharing of SWITCH ideas and preparing for SWITCH session at WWF5		D6.2.12	August 2008
Report on Baseline Survey	Dependant on information obtained from demo site		D6.3.1	September 2008
7th LA Meeting on discussions on Demonstration Site	Discuss field visit and SI in demo site. Discuss possible interventions.		D6.2.8/6.2.9/6.3.4	September 2008

Follow up on Demo site activities			D6.2.9	September 2008
World Water Congress, Vienna	Deliver a presentation on SWITCH Alexandria at City of the Future Session		D6.2.12	October 2008
Masters student from Wagengingen University with Alex Wastewater Company.		Investigate Sanitation Interventions for Demo Site	D6.2.9	November 2008
Scientific Meeting and Work Belo Horizonte, Brazil	Sharing of SWITCH ideas		D6.2.12	November 2008
LA quarterly progress report			D6.2.8/6.2.9	November 2008
Situation Analysis Report for Alexandria		Still being reviewed	D6.3.5	December 2008
Alexandria Film on Climate Change and Demonstration Site	Filming strategic locations in Alex. Interviews with key experts in field. Film in Maawa El Sayadeen.		D6.2.12	December 2008
Alexandria City Storyline for year 2008			D6.2.8	January 2009
Identification of research needs for IUWM plan in city story			D6.2.7	January 2009
Identification of research opportunities for IUWM in Aquacycle			D6.2.7	January 2009

Planned Activities in Workpackage 1.1 from M37 to M60 (Jan. 09-Feb. 11)

Planned Activities 2009				
Activity	**Specific objective**	**Task**	**Deliverable Number**	**Milestone**
Demo Site Feasibility Study work	Complete tasks indicated and possible studies		**D1.1**	January 2009

Demo Site Feasibility Study REPORT	Produce report		**D1.1**	Feb - March 2009

Planned Activities in Workpackage 6.1 from M37 to M60 (Jan. 09-Feb. 11)

Planned Activities 2009				
Activity	**Specific objective**	**Task**	**Deliverable Number**	**Milestone**
Report on Institutional Mapping Analysis			**D6.1.2**	July 2009

Planned Activities in Workpackage 6.2 from M37 to M60 (Jan. 09-Feb. 11)

Planned Activities 2009				
Activity	**Specific objective**	**Task**	**Deliverable Number**	**Milestone**
8th LA meeting (SP Kick off meeting for IUWM Plan)	-Discuss specialists for 6 studies (aquacycle, WDM, storm-water, groundwater, wastewater, institutional mapping)	Begin all 6 studies in parallel (studies should take 2.5 months)	**D6.2.8/D6.2.9/D6.2.14**	February 2009
Social Inclusion Workshop	Discuss Social Inclusion in IUWM Planning	Discuss demonstration activities.	Report on Workshop **D6 6.2.9**	February 2009
Report on Institutional Mapping Analysis	Specific Study and research to Alexandria		**D6.2.5**	June 2009
LA quarterly progress report			**D6.2.8/6.2.9**	March 2009
Update Alexandria SWITCH City Website			**D6.2.11/6.2.12**	April 2009
9th LA meeting (SP Evaluation meeting)			**D6.2.8/D6.2.9/D6.2.14**	May 2009
Report on WDM in Alexandria	Specific Study and research to Alexandria		**D6.2.7**	May 2009
Report on aquacycle in Alexandria	Specific Study and research to Alexandria		**D6.2.7**	May 2009
Report on storm-	Specific Study		**D6.2.7**	May 2009

water in Alexandria	and research to Alexandria			
Report on wastewater in Alexandria	Specific Study and research to Alexandria		**D6.2.7**	May 2009
Report on groundwater in Alexandria	Specific Study and research to Alexandria		**D6.2.7**	May 2009
Strategy Workshop	IUWM Planning Process		**D6.2.14**	July 2009
City Water training in Alexandria	Hands on training		**D6.2.8/6.2.14**	July 2009
LA quarterly progress report			**D6.2.8/6.2.9**	July 2009
Training on urban planning module	Module B-1urban planning from a water perspective Module B-2 storm water management Module B-3 water treatment Module B-4. water distribution and use Module B-5. wastewater management		**6.2.14**	August 2009
10th LA meeting Storm Water Management & Potential	Discuss Storm Water Management & Potential, Discuss outputs for WRA		D6.2.8/6.2.9	August 2009
Follow up on Demo site activities			**D6.2.7**	September 2009
Training on natural treatment systems	the possibilities for current situation and developing a draft plan		**6.2.14**	November 2009
11th LA Meeting	IUWM planning		**D6.2.8/6.2.9**	December 2009
LA quarterly progress report			**D6.2.8/6.2.9**	December 2009
Planned Activities 2010 till M60				
IUWM workshop	Meeting multiple objectives		**D6.2.14**	January 2010
12th LA meeting	Demonstration site activities researched	Further needs and support to demo site	**D6.2.8/6.2.9**	March 2010
LA Quarterly Progress Report			**D6.2.8/6.2.9**	March 2010

IUWM workshop	Implementation		**D6.2.14**	June 2010
13th LA Meeting Water cost recovery	Cost Alternative Policy Measures		**D6.2.8/6.2.9**	July 2010
Follow up on Demo site activities			**D6.2.7**	August 2010
LA Quarterly Progress Report			**D6.2.8/6.2.9**	August 2010
14th LA meeting	IUWM plan			October 2010
15th LA meeting	Final handover to LA for sustainability			January 2011

Additional Requested Budget under 6.2 from M37 to M60

Deliverable 6.2.14
Training on urban planning module
Training on natural treatment systems Total

Budget estimate under 6.2 for all partners:

	UNIT COSTS		UNITS
SP team			
Office space	provided by Water company		
Office operational costs	100	per month	24
Post doc	500	per month	24
Senior water specialist	1800	per month	6
Staff Water Company	1000	per month	9
Staff Wastewater Company	1000	per month	9
Staff MWI	1000	per month	9
Meeting costs	provided by Water company		
International support	not included in this budget		
SUBTOTAL SP TEAM			
Strategic elements studies			
International coordinator	12000	per month	0.75
	550	per ticket	2

	140	per day DSA	10
Local specialist 1	1800	per month	2
Local specialist 2	1800	per month	2
Meeting costs	500		1
SUBTOTAL STUDY			
No of studies			
SUBTOTAL STUDIES			
GRAND TOTAL			

Study topics:	International Coordinator
* AquaCycle study into water balance	Assimacopolous
* Water demand and supply study based on end-use analysis	Sam Kayaga
* Groundwater management	Andrew Maeng
* Stormwater management	Lian Scoles
* Wastewater management	Claudia Agudelo (vdSteen)
* Institutional mapping	Emanuelle Lobina

ToR for studies:
* provide review of current situation
* prepare SWOT for the sub-sector under study
* identify (SWITCH) innovations as options for Alexandria

Additional Requested Budget from M37 till M60 for CEDARE only:

Office operational costs
Post doc
Senior water specialist
Staff Water Company
Staff Wastewater Company
Staff MWI
Total
Local specialist 1
Local specialist 2
Meeting costs
Total for 1 study
6 studies
Total to CEDARE

Planned Activities in Workpackage 6.3 from M37 to M60 (Jan. 09-Feb. 11)

Planned Activities M37-60				
Activity	**Specific**	**Task**	**Deliverable**	**Milestone**

	objective		Number	
Social Inclusion in IUWM Planning – Workshop	Discuss Social Inclusion in IUWM Planning	Discuss demonstration activities.	Report on Workshop **D6.3.3**	February 2009
Report on Social Inclusion workshop – Social Inclusion in IUWM			Report on Social Inclusion in IUWM **D6.3.3 /6.3.4 /6.3.5**	March 2009
Support to Demo Site and Social Inclusion			D6.3.4	January 2010
Participatory Planning Cycle Management and Qualitative Information Systems methodology	IRC together with CEDARE		D6.3.5	June 2010

Planned Activities in Workpackage 6.4 from M37 to M60 (Jan. 09-Feb. 11)

Planned Activities M37-60				
Activity	**Specific objective**	**Task**	**Deliverable Number**	**Milestone**
Prepare a report on demo project interventions financial assessments		Report on Financial Assessment	**D6.4.1**	June 2009
Finance Recovery systems	Work with partner		**D6.4.3/D6.4.4**	June 2010

Documentation

Report/Document	**Status**
Scoping report	Complete
LA action plan/ city storyline	Complete
Stakeholder analysis	Complete
Report of visioning workshop	Complete
Quarterly reports	Complete
Process documentation	Complete
Institutional Mapping Report	Preparation of report
Demonstration Site Technical and Financial Proposal	Complete
IUWM Plan	Gathering of information is in process
Report on Water Awareness Event	Complete
Baseline Survey on Demonstration Site	Under review
Case Study on Slum Areas for Social Inclusion	Complete

Situation Analysis Report on Social Inclusion	Under review
Alexandria City Story	Complete

Training

Training activity	Purpose	Target audience	Date Achieved
1st WDM Training October 2007	Train Alexandria & Other cities Professional on WDM, Put WDM on the Political Agenda	Select Professionals to be trained, Provide WDM training	1st WDM Training took place from 11-14 November 2007.
Social Inclusion Training in Delft	Social Inclusion	LA members	April 2007
LA Training in Lodz, Poland	Process Documentation	LA facilitators	July 2007
LA Training in Accra, Ghana	Monitoring and Evaluation	LA facilitators	December 2007
Workshop on Social Inclusion	More Social Inclusion in Decision Making	Learning Alliance Members	Yet to be planned.
2nd Component of the WDM Training May 2008	Complete WDM Training of Professionals, Get Preliminary Indications on WDM Potential in Cities	Provide Training, Compile WDM preliminary data, Analyse data, Recommend best WDM measures for cities	Planned for 11-14 May, 2008.

Dissemination

Dissemination activity	Purpose	Target audience	Date Achieved
Visioning Workshop CD	To disseminate the water pressures and challenges that faces city of Alexandria.	Decision makers and stakeholders in Alexandria	Complete
Water Demand Management Training CD	Disseminate the concept of WDM	Drinking water and sanitation companies all over Egypt, All LA members	Complete
Press Releases	Get Public Support to SWITCH innovative ideas	General Public	Complete and in progress with activities
TV Interviews	Get Public Support to SWITCH innovative ideas	General Public	Complete and on-going
Radio Interviews	Replicate SWITCH in other Cities	General Public	Complete and on-going
Newsletters	Create Awareness on IUWM	Specialists	Complete and in progress with activities

Publish Papers at Conferences	Create Scientific Support to IUWM	Researchers	Complete and in progress with activities
SWITCH Alexandria Website	Provide IUWM tools and methodologies to a bigger audience	Professionals & General Public	Complete and being updated with activities
UNESCO-IHE Conference	Disseminate Information on SWITCH in the Cities	Present Paper on SWITCH Alexandria IUWM at Conference	Complete
A poster for city of Alexandria	To address Alexandria vision, scenarios, main LA members, challenges, pressures, activities and areas to be studied	Other SWTCH cities and partners	Complete and downloaded on the SWITCH intranet website
Water Awareness Packages	Raise awareness on water conservation issues, behavior patterns, and water scarcity.	End users, General Public	In progress at March 22, 24 2008 World Water Day event
A poster for Demo site in Alexandria	To address Demo locxation and the different interventions to be addressed in the demo	Other SWTCH cities and partners	Complete and downloaded on the City of Alexandria/SWITCH website

Budget/Expense summary – Workpackage 6.2: All Learning Alliance Activities

Year	Funds Available (total)	Funds Used (total)	Staff costs	LA meeting/ event costs	Local costs & other expenses	LA training costs (travel and expenses for participation)	Total Funds Remaining / Required (EUR)	Major activities and achievements Major achievements
Year 1 (Feb 2006 – Feb 2007)	**20,439**	**27,836**	**14,106**	**626.76**	**2,187.00**	**6,276**	**(Required) 7,397**	• Planning & Startup of Activities (February 2006) • SWITCH Kick Off Meeting (Delft – April 2006) • Pre-Scoping Visit & Collection of Basic Information & Data • City Coordination Meeting (Hamburg - October 2006) • Scoping visit a SWITCH launching workshop (Alexandria - October/November 2006) • Communication with MSc Students and collection of data for their research (November/December 2006) • Prepare work plan and report on existing stat and communication with potential LA members and resource persons for demo city activities (December 2006) • Presenting the SWITCH Project in Alexandria on a regional Arab Satellite channel (Beatty CEDARE Board of Trustees, and Members of the Arab Water Council, UNDP)
Year 2 (Feb 2007 – Feb 2008)	**41,761** [(1)]	**37348**	**21536**	**2050**	**1784**	**5763**	**4473** [(2)]	• SWTICH General Assembly Meeting & Presenting Paper on SWITCH in Alexandria at SWITCH Scientific Meeting (Birmingham, January 2007) • Hosting and Organizing Learning Alliance Facilitation Training (CEDARE-Cairo, January 2007)

								• 1st LA meeting (January 2007) • 2nd LA meeting (March 2007) • 3rd LA meeting (June 2007) • LA facilitator participated in Documentation training in Lodz, Poland (June 2007) • Visioning workshop (July 2007) • IUWM Vision and Scenarios • LA facilitator and Co-facilitator hired • Established a functional and enthusiastic LA with stakeholders from all sectors • Complete Stakeholder Analysis Report • LA co-facilitator participated in LA facilitation training in Accra, Ghana (December 2007) • RIDA/Aquacycle Workshop (January 2008) • 4th LA meeting (January 2008)
Year 3 (Feb 2008 – Feb 2009)	**44710** [3]	-	-	-	-	-	-	Water Awareness Event Set up SWITCH Alexandria office Update Alexandria SWITCH City Website 2nd Component of the WDM Training 5th and 6th LA Meeting Discuss WDM measures WDM Training - Documentation Demo Site Feasibility Study Proposal Social Inclusion work in Demo Site TOR for Institutional Mapping Analysis Report on WDM in Alexandria Report with IRC on Alexandria City Assessment Stockholm World Water Week Report on Baseline Survey

								7th LA Meeting on discussions on Demonstration Site Follow up on Demo site activities World Water Congress, Vienna Masters student from Wagengingen University with Alex Wastewater Company. Scientific Meeting and WorkBelo Horizonte, Brazil LA quarterly progress report Situation Analysis Report for Alexandria Alexandria Film on Climate Change and Demonstration Site Alexandria City Storyline for year 2008 Identification of research needs for IUWM plan in city story Identification of research opportunities for IUWM in Aquacycle
Year 4 (Feb 2009 – Feb 2010)	**20301** [4]	-	-	-	-	-	-	-
Year 5 (Feb 2010 – Feb 2011)	**19379** [5]	-	-	-	-	-	-	-

Notes:

1. 22,011+19,750 = 41,761. The 22011 refers to the sum for wp 6.2 from the original budget. 19,750 refers to half of the additional funds of 39500 for LA facilitation. The 39500 is to be used from month 19-30, thus 19750 was used from month 19-24 (second half of yr 2).

2. 4473 EUROS to be used in year 3 for 6.2