

CHALLENGES OF INTEGRATION IN URBAN WATER MANAGEMENT: A MID TERM ASSESSMENT IN ALEXANDRIA, EGYPT¹

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INTRODUCTION

Box 1. Making the city of the future a reality in Alexandria

From day one of the SWITCH project I was very interested in what was discussed about the “city of the future” and how we could apply this project in Alexandria to find solutions to meet the water demands of the future. We have to make use of every drop of water and we also need to dispose of water in the most environmentally sustainable manner. To address this challenge, Alexandria needs an integrated urban water management plan that is really integrated and that looks at all sectors. This is a big challenge. It is what we are working towards to achieve integrated urban water management for Alexandria.

Dr Khaled AbuZeid, City Co-ordinator for Alexandria, SWITCH Project

Water and the City of Alexandria

Alexandria City on 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 finds its way into the 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 put pressure on the city of Alexandria.

¹ This paper was prepared in 2008 for the SWITCH project and is available at www.switchurbanwater.eu

Approximately 80% of Alexandria's city population is connected to a centralised sewerage network and connections are being increased as a number of new systems come on line. According to official statistics 99%+ of the city's inhabitants have access to sanitation. Two existing primary treatment plants are able to treat 1 million m³/day, although this is about 300,000 m³/day under capacity, especially in summer when the city's population increases from 4 to 7 million with the influx of tourists. As the number of treatment plants (most secondary level) rises to 16, the treatment costs will increase significantly and thus operations and maintenance cost recovery is a major concern. Despite the high sanitation coverage of the city's population, there are 9 low-income, peri-urban areas that remain un- or under-served with water and sanitation services. There are city and governorate level plans for extending or up-grading services to these areas, however the involvement of residents / users from these marginalized areas of the city has been limited.

The main water issues facing Alexandria include: deterioration of water quality at end users; lack of proper maintenance of networks supplying water to users; ensuring water supply and sanitation services to *all* areas in Alexandria. These problems are compounded by the fact that Alexandria has not been able to mobilize sufficient government funds to address these issues. In addition, forty percent of Egyptian industry is based in Alexandria which increases water demand and brings pollution risks. Many of these industries generate dangerous waste which is disposed into the sewers. Along with this industrial waste problem comes the challenge of improving the level of treatment at the two main treatment plants.

Box 2. Making use of every drop

Whilst technical interventions such as rainwater harvesting may seem nominal in a city that only produces 200 mm of rainfall a year, with the increasing population and growing demand on water, making use of every drop of water is imperative. The research proposed creating roof-top collection systems in the demonstration site as a pilot project to be scaled up upon success.

Integrated urban water management and institutional challenges: SWITCH in Alexandria

Research into integrated urban water management tends to prioritize technological studies rather than examining institutional barriers to integration and sustainability. Additionally technical research is typically driven by researchers and their institutions rather than by local governance institutions and end users. Yet, integrated urban water management is as much about institutions, local frameworks for governance and organisational responsibilities and capacity as it is about water resource management.

Sustainable Water Management Improves Tomorrow's Cities' Health (SWITCH) was 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). SWITCH aims to bring about a change in urban water management away from existing ad hoc solutions and towards a more coherent and integrated approach. The vision of SWITCH is for sustainable integrated urban water management in the 'City of the Future'.

SWITCH uses 'learning alliances' comprising multi-stakeholder platforms to create and share new knowledge and innovation based on demand-led research and scaling up of research impacts. Methodologies used within the SWITCH approach include vision and scenario based planning with key stakeholders; recording change through process documentation; monitoring outcomes based on a set of scoring indicators; and making use of full-time and part-time facilitators to ensure effective communication and follow-up. Research, demonstrations, training and

knowledge sharing underpin all SWITCH projects towards facilitating integration and more sustainable urban water management.

The SWITCH project in Alexandria attempts to bring together a range of components to achieve integration, namely:

- **Structures** and the institutional arrangements to facilitate integration (Learning alliance and the establishment of a structure within the Governorate to facilitate integration)
- Assessment of all potential water sources and resources to optimise water use as part of integrated water management as well as the necessary decision support tools (**research**)
- **Demonstration** of innovative technologies and integrated water management in a locality with a view to ensuring participation and learning lessons for scaling up integration
- **Integrated planning** where all the key stakeholders come together to strategise IUWM and to develop a vision and plan for IUWM for Alexandria
- **Mechanisms** to facilitate **coordination** and cooperation
- **Capacity building** to address both the institutional and technical requirements of IUWM.

Purpose of the assessment and this paper

Mid-way into the project, SWITCH has embarked upon an assessment of the Alexandria experience in addressing the challenges of local integrated urban water management, with a view to identifying lessons learnt and making recommendations for the second half of the project.

One of the main objectives of SWITCH in Alexandria is the development of an IUWM plan. Apart from the research activities necessary to prepare the plan, the project has gone a long way towards preparing stakeholders for the development of the plan, where a common vision and strong commitment to the plan has been achieved. This paper aims to identify progress made, the lessons learnt and the gaps to be addressed in terms of the overall integration effort and towards achieving integrated water resource management for Alexandria.

The assessment reported in this paper is based on a synthesis of information and inputs provided by the learning alliance facilitators, interviews with members of the Alexandria learning alliance, and a review of project documentation. The paper provides inputs concerning Alexandria and its water challenges; the intervention logic of the project; and how the project has been implemented with particular reference to the learning alliance, the demonstration site, research undertaken and the IUWM plan for Alexandria. It then draws on the findings of the assessment to highlight lessons learnt and to make a set of recommendations to optimise the impact of the project in the second half of the project period, and to share lessons with other SWITCH cities.

PROJECT METHODOLOGY

Achieving integration through a combination of activities

The project methodology is aimed at achieving integrated water management for Alexandria and combines research, demonstration, capacity building (in later phases) and training, the establishment of a learning alliance, and joint work towards an integrated urban water management plan. The focus of the research is on decision-support methods, governance, demand management, and social inclusion.

One of the main objectives of SWITCH in Alexandria is the development of an IUWM long term plan which will address current water management and sanitation problems including lack of sanitation coverage, industrial pollution and challenges facing the supply of water to the city.

Alexandria 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 main planned outputs for the SWITCH project include:

- Studies on the stages of development and feasibility to deliver water supply and sanitation services in Alexandria;
- Future scenarios and visioning for water resources in the City of Alexandria for the year 2037;
- A stakeholder analysis and institutional mapping, which will help identify key stakeholders and understand the institutional setting in order to develop approaches and solutions that will be adapted in the city;
- Coordination mechanisms between the various relevant organisations and stakeholders in Alexandria to establish a fully operational Learning Alliance (LA);
- Human and institutional resources awareness of the social and participatory dimension of water supply and sanitation services;
- An Integrated Urban Water Management (IUWM) Plan for the future of Alexandria for 2037;
- A Decision Support Tool to assist in IUWM planning in the city of Alexandria;
- A baseline report on social inclusion in the demonstration site;
- Case studies about social inclusion in Egypt;
- A situation analysis of social inclusion in the water sector at the city level in Alexandria;
- Investigating and implementing IUWM interventions in an impoverished area as a demonstration site in Alexandria;
- Application of social inclusion in the demonstration site to allow a marginalized community to participate in the development process and have their voices heard.

As the project proceeds additional outputs are being identified by the Learning Alliance such as:

- Transforming the learning alliance into an Advisory Committee on integrated urban water management to ensure sustainability and to assist the Alexandria Governorate in making water related decisions;
- a framework for the development of the IUWM plan and to achieve institutional coordination and integration necessary to implement integrated urban water management; and
- institutional and capacity building support to those institutions who are required to achieve integration.

Research progress in Alexandria

Decision support (workpackage 1.1): The University of Athens has been supporting the development and use of decision-support tools to complement the planning process referred to in this report. (See box on City Water). Athens staff have participated in several workshops and helped collect baseline data including for the first visioning workshop.

Governance (workpackage 6.1): A methodology for a planned governance analysis has been developed by the University of Greenwich, however work on the ground has not yet commenced. Capacity and coordination issues are still to be addressed.

Demand management (workpackage 3.1): Training on demand management involved two workshops supported by an Australian expert. In between workshops key stakeholders worked on demand management issues from the perspective of their own organisation.

Social inclusion (workpackage 6.3): Social inclusion research has laid the basis for demonstration activities to potentially be socially inclusive. Activities have included participation in training on methodologies, case studies on best practices in social inclusion, and development of a situation analysis. A recent working visit to slum areas focused on how the demonstration activities can engage and benefit poorer and disadvantaged communities and individuals.

Demonstration site

The demonstration site project aims at piloting some of the overall IUWM proposed plan interventions, with special emphasis on providing sanitation services for the poor, waste water reuse, water demand management, and social inclusion in decision making in this regard. The demonstration site is also used to pilot the most appropriate technologies and strategies for water sensitive design including decentralized wastewater treatment, water demand management, rainwater harvesting and water reuse. The intention is that the findings of the demonstration site be scaled up to address integrated water resource management issues for Alexandria. The site selected in Alexandria is an impoverished area which consists of a fishing village encompassing an area of 114,000 m², with approximately 1000 households.

Intervention logic

The overall objective of the SWITCH project in Alexandria is to achieve integrated water management for the city of Alexandria. This is an ambitious objective which is dependent upon the achievement of the following key components listed below and described in detail thereafter:

The establishment of a Learning Alliance that becomes formalized and institutionalized as a 'structure for integration' within the governance structures of Alexandria

The learning alliance was established to bring together all key stakeholders to address the water challenges facing Alexandria and to disseminate and share information and knowledge. The alliance members jointly identify the information, research, and decision support needs required to achieve integrated water resource management for Alexandria. Through working together the learning alliance aims to develop an IUWM plan for Alexandria that they will jointly implement.

In order to ensure sustainability of the learning alliance and to achieve sustainable urban water management, the learning alliance will be formalized and institutionalized within the Alexandria Governorate where members officially represent their institutions and are able to take decisions and actions accordingly.

Research to support decisions for integrated urban water management

The research in support of the decision-making process in Alexandria as a SWITCH City, focuses on the development and application of the CITY WATER information sharing platform, which will ultimately test scenarios, strategies and options to be considered for the formulation of the IUWM plan.

Preliminary simulation of the urban water system in Alexandria and testing of scenarios and options is making use of the ready-to-use Aquacycle tool. The reasons behind this preliminary application are to strengthen collaboration between SWITCH researchers and the Alexandria learning alliance to: provide an understanding of the urban water system; to depict the current UWM situation; and to prepare the ground for the CITY WATER application in matters of data collection, and identification of issues of concern and areas of interventions. Aquacycle will preliminary test scenarios related to rainwater harvesting and reuse of greywater at domestic level. Aquacycle provides daily, monthly, and annual estimates of water demand, stormwater yield, wastewater yield, evaporation, imported water use, stormwater use, and wastewater use as well as performance measures of any water management strategies selected.

Demonstrating integrated urban water management technical interventions

The purpose of the demonstration site is to demonstrate improved urban water systems on the ground that will inspire stakeholders to replicate these technologies and to illustrate how integrated water management happens in a locality, for scaling up. This is in line with SWITCH's aim to encourage the better design of urban water 'systems', and piloting alternatives.

Development of an IUWM plan for Alexandria

One of the primary objectives of the project is to produce the “Integrated Urban Water Management (IUWM) Strategic Plan for Year 2037: A Vision for the Water Future of Alexandria. The project has developed an outline of the contents of the plan and proposes to support the learning alliance (or its institutionalised form) to develop the plan by providing an integrated planning methodology, tools and guidelines, mentoring, facilitation and backstopping support.

Capacity support for integration

All the stakeholders involved in the integration effort will require capacity building to assist them to apply the new methodologies and processes necessary to achieve integration. The role of capacity building is not simply to learn new methodologies but also to put in place the necessary systems and procedures to ensure sustainable integrated urban water management. This is recognised by CEDARE as a key component to ensure the sustainability of the integration process. Capacity support thus includes training, technical support, on-job mentoring, and access to specialist support where required, for example to address the organisational implications of integration.

Co-ordination and management for integration

The integration effort needs to be co-ordinated and properly managed with dedicated resources. Whilst co-ordination will take place through the structures, the planning, the procedures, and the entire framework for integration, it will require fulltime facilitation and management of the various activities, outputs and responsibilities. Currently CEDARE fulfils this role, however as the integration effort gains momentum, additional resources will be required, particularly in Alexandria.

Enabling environment for introducing integrated water management

Whilst there are many water and institutional challenges to achieving integrated urban water management in Alexandria, the environment within which SWITCH operates can be described as being overall ‘enabling’ for the objectives of the project.

National Initiatives: Operationalising the National Water Resource Plan at the local level

At the national level the Ministry of Water Resources and Irrigation has produced a **National Water Resource Plan** which provides the overall framework for integrated water resource management at the national level. The aim of the Ministry is to ensure that the plan is operationalized at the local level until 2017. Three pilot governorates are currently underway to determine how the National Water Resources Plan could be interpreted at the local level. Thus the need for local level integrated water management plans is not only recognized by the SWITCH project in Alexandria, but is also similarly being developed by the Ministry to be applied and tested with a view to rolling out across all governorates.

The Alexandria SWITCH project will compliment this initiative in exploring how to achieve integrated urban water resource management. Similarly, the SWITCH project will draw on the learnings and best practices of the three pilots. Since SWITCH is an independent project it can introduce innovative practices and new technologies from which to learn lessons and find best practices for integrated water management at the local level.

Initiatives at the city level

A number of initiatives at the city level already provide a base from which the concept of an IUWMP is supported or will be enabled:

- The Holding Company for Water Supply and Sanitation together with the Alexandria Water Supply Company are developing a 2037 Master Plan for Water Supply for the city

- The Holding Company for Water Supply and Sanitation together with the Alexandria Sanitation Company are developing a 2037 Master Plan for Sanitation for the city
- The Ministry of Housing in cooperation with Alexandria Company for Sanitation, is aiming to enhance the treatment and reuse of sanitary waste-water that is currently being dumped into water bodies.
- The Governorate of Alexandria is placing great emphasis on the Alexandria Integrated Urban Water Management (IUWM) Strategic Plan. This requires an integrated approach and the willingness of the Governorate to engage in wider dialogues with stakeholders reflects the commitment to achieving sustainability and results that have been jointly identified.
- The Governorate is also implementing the ‘Informal Settlements Development Program’ to address the ongoing expansion of slums which now consist of 30 informal settlements in Alexandria, with a population of approximately 1.36 million inhabitants.
- There is strong co-operation between the elected public local council and the vibrant civil society represented by strong NGOs in Alexandria. This cooperation facilitates development processes and stakeholder participation.
- A further enabling factor at the city level is the noticeable and welcomed international donors’ interest in Alexandria’s development. This has led to the establishment of a coordinating donors’ activities unit within the governorate, which lays the basis for the beginnings of a sector wide approach in the city.

Other projects / programmes / initiatives

There are a number of other projects and water related initiatives within Alexandria where there is potential for collaboration. These initiatives are listed in Annex 2.

ALEXANDRIA LEARNING ALLIANCE

Alexandria learning alliance establishment and stakeholder engagement strategy

The learning alliance was 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, and the Ministry of Health. The Terms of Reference for these representatives highlights the water related challenges faced in Alexandria and dissemination of information between the different learning alliance members and stakeholders of all sectors in Alexandria.

The focus of the learning alliance is on IUWM and to coordinate information gathering from all sectors in Alexandria on resources, infrastructure, stakeholders, and the water related needs and demands of the people. Although rules and procedures for governing the functioning of the learning alliance are in effect, these procedures do not address the activities or commitments for the SWITCH project or the learning alliance members. The learning alliance meets every three to four months in the Alexandria Governorate.

The activities of the learning alliance are facilitated by a learning alliance facilitator and co-facilitator, specifically appointed for the city of Alexandria. The facilitation effort is also supported by several other members of the CEDARE team.

Box 3. Without the learning alliance there would be no Switch – no switch on.
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The strength of the project is the new approach which reaches out to different people to take their opinions and ideas into consideration. Giving a voice to marginalised people in the Alexandria governorate in the demo site has resulted in finding out the real needs and problems on the ground. Water problems cannot be separated from other problems at the community level and thus the methodologies and approaches used brought forward a more holistic picture of the development challenges to be addressed.

Alexandria facilitator Ahmed Essam

Stakeholders

The Alexandria learning alliance has categorised stakeholders into a primary and secondary group, where the primary stakeholders are the decision makers of the project and the secondary stakeholders are those who act as intermediaries where consultation takes place.

Box 4. Primary stakeholders in Alexandria integrated water management

Alexandria Governorate

The governorate of Alexandria is the leading executive and administrative body of Alexandria. It regulates the 2679 km² land of Alexandria and its 4 million people.

Ministry of Water Resources and Irrigation (MWRI)

The Ministry of Water Resources and Irrigation is responsible for all issues concerning water resources management in Alexandria. It is responsible for managing the Nile water as well as surface, groundwater, and rainwater resources. It ensures the water resources satisfy the increasing requirements and demand, in addition to keeping the water paths away from pollution.

Ministry of Housing, Utilities, and Urban Communities

The Ministry of Housing is responsible for all water supply and sanitation services in Alexandria. The Drinking Water and Sanitation Holding Company for Egypt, which is under the Ministry of Housing, is the National Organization for Potable Water & Sanitary Drainage which covers water supply and sanitation to all the governorates in Egypt. It is the umbrella under which all local governorate drinking water and sanitation companies respond to.

Alexandria Holding Company for Drinking Water

The Alexandria Holding Company for Drinking Water is a sub-branch of the mother company, the National Organization for Potable Water & Sanitary Drainage. It ensures water supply reaches all consumers within the Alexandria area.

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Ministry of Agriculture

The Ministry of Agriculture is responsible for ensuring the optimum allocation, and utilization of agricultural resources (particularly land and water) together with conserving, improving and developing these resources to achieve sustainable agricultural development. Of concern to us in this project is the conservation and allocation of water resources for agricultural purposes and means of efficiency in use.

Egyptian Environmental Affairs Agency (EEAA)

The Egyptian Environmental Affairs Agency is under the Ministry of State for Environmental Affairs. It ensures the management of natural resources and mitigation measures from pollution of water, air, and soil. Thus, within the context of the SWICH project, the EEAA aims to prevent the pollution of water resources.

Ministry of Health

The Ministry of Health aims at ensuring the quality of the water to the end users, and that it is in accordance to national and international standards for drinking water, to minimize any health risks associated from water-related diseases.

Alexandria Local Council

The Alexandria local council is a forum where civilians are elected to represent the people's concerns within the city. Their concerns with respect to water –related issues are heard within this forum.

Secondary stakeholders in Alexandria integrated water management

Centre for Environment and Development in the Arab Region and Europe (CEDARE)

CEDARE is an Inter-Governmental Organization (IGO) in the region as well as a partner in the SWITCH project focused on implementing the principles and goals of the SWITCH project. An Integrated Urban Water Management (IUWM) plan is one of the main objectives of the SWITCH project to ensure sustainability of water resources for future generations.

Non-Governmental Organizations (NGO's)

The Egyptian Water Partnership (EWP) is an NGO focused on better water resource management in Egypt. There are two leading NGO's in Alexandria that aim at improving water resources. These are the Friends of the Environment, and Pioneers of the Environment. Through their actions and perseverance with consistent lobbying, they are capable of improving the water quality within the Alexandria area.

Research Community in Alexandria

The research community in Alexandria includes academic institutions such as the University of Alexandria and the National Institute for Ocean Sciences. Experts in the field of hydrology and water resources are of vital importance to the project through their continued research and efforts for conservation and water resource management.

Fisherman Authority

The fisherman authority is of importance when referring to the demonstration site of the fishing village. Here the fisherman authority and their concerns with respect to the lake, and the use of the fisheries, is of importance and needs to be addressed. Possible pollution of these water bodies is an integral factor in consideration that also needs to be tackled within the context of the project.

Political parties

The most influential political party is the National Democratic Party (NDP) where its representatives in Alexandria may be of concern with respect to water issues reaching the users and whether there are political concerns or ramifications involved in these water-related issues.

Local community

The local community includes the Alexandria civilians and their day to day concerns with respect to water related issues.

Lobby groups

The lobby groups here refer to the media and their capability of spreading awareness to the people and to institutions regarding water resources and conservation.

Communication and relations within the alliance

Communication between the learning alliance facilitators and the learning alliance members takes place through e-mail, phone, and official letters. The learning alliance meetings are a key forum for communication and building relations amongst alliance member, plus there are also occasional visits to Alexandria which include meetings, trainings and workshops. The Alexandria City website (<http://switchalex.wordpress.com>) is viewed as an optimum mechanism for disseminating and sharing information regarding the SWITCH project. It is also used to facilitate information sharing among the various learning alliance members, where it is updated regularly with recent events, final reports, news of upcoming meetings and trainings and important links to most of the Alexandria Stakeholders.

Communication between primary stakeholders has improved since the establishment of the learning alliance. A representative from the Alexandria Sanitation Company was asked if there is a difference in *approach* to communication at the local level as a result of the learning alliance: “Yes, we are now meeting and coordinating with the Water Company and sharing information and GIS data. Before SWITCH there was not enough contact, the only meetings that were taking place were to deal with financial arrangements and to discuss water allocations. There was nothing about integration. Now we are discussing and debating integration.” Another stakeholder commented that “It would be a big loss if the alliance closed tomorrow”, a view which was echoed by most stakeholders.

The facilitators clearly play an important communication role, but their role in facilitating relations and activities between alliance members is less clear. For example, stakeholders were recommending much stronger and more hands on facilitation in Alexandria with the need for a

full-time facilitator operating from an accessible office. It was queried why CEDARE was not actively using the office space offered by the Alexandria Holding Company for Drinking Water. As one stakeholder commented, “Maybe the learning alliance is being facilitated, but what does that mean? We need a facilitator here in Alexandria to help facilitate the co-ordination between stakeholders on a daily basis, like a George who can follow up on the activities.” Another comment, “We need facilitation and we need support. If the facilitator is facilitating integration of the work of different stakeholders that is a difficult task and he must have the skills and expertise to do that task.”

Apart from the learning alliance meetings, it appears that communication is primarily in preparation for the next event, rather than an ongoing strategy towards achieving a set of objectives.

Learning alliance activities

A number of learning alliance activities have taken place since the commencement of SWITCH in Alexandria, including learning alliance meetings; trainings; a visioning workshop, water demand management training, RIDA/Aquacycle meetings in both Cairo and Alexandria (which involve water resources assessment and scenario modelling to develop a IUWM strategy) ; discussions on the demonstration site and the financing of activities on the site; stakeholder analysis and institutional mapping; a water awareness event; identification of research needs for the IUWM plan; and social inclusion in the IUWM planning. A table of the activities is included in Annex 3.

The effectiveness of the learning alliance

There are different viewpoints amongst the stakeholders concerning the usefulness of the learning alliance. Most stakeholders indicated that they found the learning alliance useful in that it has highlighted the benefits of integration and has facilitated the sharing of information and ideas amongst all the major stakeholders.

However some stakeholders do not believe that the learning alliance has resulted in a “continuous learning process where different stakeholders with different views are able to engage in real dialogue over their issues of concern”. All stakeholders recognize that the learning alliance process needs to continue but some see the current learning alliance as a process of “talking about and within the learning alliance” without really working towards a common outcome. The learning alliance was described as a set of learning alliance meetings rather than a learning process with a common objective. There was concern that the stakeholders were not actively involved in any activities in between learning alliance meetings. As one stakeholder stated: “The learning alliance meetings should also be the place where we all report back on what we have done to enable integration in our institutions.”

Although all stakeholders are committed to the idea of an IUWMP, the full benefits of the plan to each agency / stakeholder have not been unpacked and thus it is not clear what the priorities are for each agency and how these priorities will be addressed in the plan.

All those interviewed were asked whether they believed that the learning alliance and the proposed IUWMP is *really* going to result in integrated water management for Alexandria. Many stakeholders responded positively, however they clarified that additional inputs would be needed, such as technical support, financial resources, capacity building, and strong facilitation of the process. Questions were also raised as to *how the alliance and the plan will bring about integrated water management*. “Meetings from time to time and a plan are not going to bring us integration at the Alexandria level. For me to be involved, really involved, I have to understand how it all works and how I fit in and what I must contribute to make it work. I have to believe in

it. We believe it can work, but we need a process, we need some kind of framework, a way of working together, to get us to the plan and to get us to integration. What is the planning process, and when do we plan together and when do we go back to our agencies to adjust our own plans? If it is not done properly the first time round it will take longer and stakeholders could become demotivated.”

The point was made that although the SWITCH documentation describes the concept of a learning alliance and what it is for, there is a gap in terms of how to implement the learning approach successfully. For example what mechanisms are needed the learning alliance members to start working together beyond meetings and workshops.

Stakeholders envisage that over time there will be an increasing need for learning alliance members to make inputs to the alliance and the integration process and thus the alliance will need to become a much more dynamic body. There were suggestions that it would have sub-committees dealing with different areas of work. One such sub-committee would be a core group responsible for ensuring that the IUWM plan is developed.

It was also suggested that the learning alliance could become more effective if it focused on processes and mechanisms for integration and on what needs to be achieved on the ground rather than having such a strong focus on reports. “If there is more focus on the impacts and outcomes, rather than on deliverables such as reports, then we can start to address strong integration at different levels”. The work of the facilitators was viewed as being driven by what is required by the SWITCH project rather than the needs of the alliance members.

Monitoring learning alliance outcomes

SWITCH developed four objectives with qualitative descriptions of indicators to monitor the progress of the learning alliance. These objectives have been used in Alexandria; however an additional two objectives related to social inclusion and support for the IUWM planning process have also been included. The monitoring objectives are the following:

1. We know who learning alliance members are, and facilitate communication between them effectively
2. Regular, effective and innovative events capture and sustain interest of learning alliance members
3. Demonstration activities are undertaken within a framework for scaling-up
4. The SWITCH team and learning alliance understand why change is occurring in IUWM, not just what happens
5. A1 Stakeholders support the issues of social inclusion and efforts to eradicate exclusion are made.
6. A2 Wide participation and support for the Integrated Urban Water Management (IUWM) planning process

The full results of the scoring for these objectives are detailed in Annex 4. The scoring was undertaken by the CEDARE Learning Alliance facilitator/s. The first set of scores was awarded in December 2007, which was later followed up by a second scoring in August 2008.

Based on feedback received from learning alliance members, it could be argued that some of the scores in the monitoring system do not adequately reflect progress on the objectives. For example the scores of 65 (December 2007) and 75 (August 2008) were awarded for Objective 1 which includes effective communication between stakeholders. However some stakeholders complained that there is too much time between learning alliance meetings with little if no

communication taking place in between the meetings: “When I attend LA meetings, it takes a while to recap where we were at the last meeting”; “things need to happen in between the meetings to keep our interest”; “there needs to be more happening here in Alexandria to facilitate contact between us and the work to be done”.

In some cases the problem is related to the way the indicators are worded. For example, whilst objective 1 is about *effectively facilitating communication between stakeholders*, the indicators focus on tools for communication, without measuring whether these have been successful or not.

The indicators for objective two do not measure the effectiveness of events, or the extent to which they meet their intended objectives. The objective and indicators for planning do not fully address the coordination of activities, functions and business processes that are necessary to achieve integrated planning. Rather the indicators focus on participation of learning alliance members and the provision of inputs to the plan. Whilst these indicators may provide an indication that there is support for the IUWM plan and that the stakeholders are participating in the plan, they do not provide any indication of whether the plan will successfully achieve integrated urban water management. It is the nature of the participation and inputs that will determine the extent to which the plan addresses the integration challenges and issues.

Sustainability of the learning alliance

The project has recognised the need to formalise and institutionalise the learning alliance within the governance structures of Alexandria. This is based on both ensuring the sustainability of the alliance (collaboration effort) as well as ensuring a formal structure to both plan and oversee the implementation of integrated urban water management. Already proposals have been made to the Alexandria Governorate to host the alliance in the form of an Advisory Committee, whereby Terms of Reference for the Committee have been put forward for the Governorate’s consideration. The Governorate welcomes these proposals and is willing to host the committee.

Box 5. Proposed Terms of Reference of the Advisory Committee for the Alexandria Governorate

- Coordination among all sectors concerned with water-related issues in Alexandria
- Express an opinion on development projects in the governorate of Alexandria with regard to water management
- Work to achieve integration in the management of water resources in urban areas within the governorate of Alexandria
- Consultation on developing strategies to mitigate the effects of climate change with regard to water in Alexandria
- Express an opinion on setting priorities for projects related to the services of drinking water and sanitation
- Consult and discuss the possibility of increasing the utilization of water resources in the governorate of Alexandria, especially concerning: Use of rainwater harvesting, Use of groundwater, Desalination of sea water and Wastewater Reuse

Although the establishment of multi-stakeholder structures can create problems in terms of existing mandates and pre-empting decisions at the individual institutional level, without such structures it is impossible to achieve integrated planning, let alone integrated management as is required for IUWM. SWITCH in Alexandria is at a relatively advanced stage in terms of addressing some of the institutional challenges of integration, particularly since it has achieved

the buy-in and commitment of all the key stakeholders to the common goal of IUWM for Alexandria. The process to establish the ‘integration’ structure at the local level needs to address institutional roles and responsibilities and the mandates of the different institutions in the integration effort. Without clear mandates it is unlikely that the different institutions / stakeholders will be able to fully participate in the planning process, particularly where the process requires commitments to joint activities and outputs.

Co-ordination and support unit

In addition to formalising the learning alliance, much thought has also been given by CEDARE and the learning alliance to the structures to achieve ongoing coordination, integration, planning and implementation. Many of the stakeholders raised the need for a secretariat / coordination or support unit to be established within Alexandria. The purpose of this unit would be to assist the whole integration process, with staff to support the head of the Advisory Committee.

The institutional home for the unit was not specified as it was generally felt that the Advisory Committee would need to determine which institution would be the most appropriate host for the unit.

The Alexandria Company for Drinking Water has made an office available for the SWITCH facilitator in Alexandria, to serve as a communication and management point. As the integration demands and needs of the project accelerate, this office is likely to become the centre of the coordination efforts. Being located within the offices of one of the key stakeholders in the Alexandria water sector is an advantage as it places the facilitation at the heart of the activities to achieve integrated water management at the local level. The head of the Alexandria Company for Drinking Water referred to the need for a facilitator ‘on the ground’ in Alexandria where this role will increase as the integration activities gain momentum. The links between this role and the secretariat / support unit to the Advisory Committee were not unpacked in any detail during the assessment, however comments were made that there was a difference between the facilitation skills required on the ground and the type of technical support required to support integration from a strategic, planning and institutional perspective.

The IUWM plan

The “Alexandria Integrated Urban Water Management Plan for year 2037: A Vision for the Water Future of Alexandria” is envisaged to include futuristic thinking of the water supply and sanitation sector in Alexandria. It looks at how Alexandria can meet a large part of its future water demand locally without depending mainly on Nile Waters, particularly since there is increasing demand in the upstream part of the Nile in Egypt. It looks at making use of rainfall harvesting and storm water usage in Alexandria which receives little rain but can help in filling the demand gap. It looks at using groundwater while managing potential problems of salt water intrusion, with Alexandria being a coastal city. It will put forward various water demand management measures that could be considered to reduce water requirements as well as addressing wastewater treatment and reuse options, and the enforcement of regulations to prevent industrial pollution of water bodies.

The plan will also try to build on the innovations developed in the SWITCH research activities, as well as those urban water management measures that will prove applicable for Alexandria.

In mid 2007 a visioning workshop was held with all the learning alliance members where stakeholders identified a future vision for Alexandria which highlights a city with available water

resources that are managed in an integrated and participative manner and used effectively for development within a framework of environmental sustainability. The workshop produced a range of outcomes and decisions for future scenarios for Alexandria's water resources which will feed into the IUWMP.

The importance of participation in the planning process

The stakeholder analysis in Alexandria found that “in order for the district area Integrated Urban Water Management Plan to be equitable, effective and efficient, the main stakeholders must be part of the decision-making and management processes in consultation with the other stakeholders. Stakeholders of different backgrounds must be encouraged to participate to achieve: inclusion of all concerned stakeholders; flexibility of decision-making; and greater attention is paid to the needs and expectations of all actors.”

The project fully recognises the importance of ownership of the process and plan for IUWM: “It is also important to note the viability of establishing a sense of ‘ownership’ among all stakeholders and to forge ‘partnerships’ and not only participation. To reach that highly-desired phase, the following would be necessary:

- Attracting stakeholders by convincing them of the potential benefits of their participation
- Establishing and availing a complete ‘information’ sharing system about issues at hand and any additional information requested by stakeholders in a transparent and efficient manner
- There should be a clear commitment by all stakeholders to act on the agreed-upon commitments resulting from the transparent discussions
- The creation of an ‘institutional mechanism’ to follow up the implementation of participation forums’ decisions
- Encouraging and educating the general public about the wider principles of participation and partnership based upon democracy, transparency and accountability”²

Locating IUWM within the existing planning framework for water

Achieving successful IUWM at the local level cannot take place in isolation of the existing planning framework for water at both the national and local levels. The project needs to determine the planning linkages between the IUWM plan for Alexandria and the existing plans of related stakeholders. The national planning framework includes a National Water Resource Management Plan under the auspices of the Ministry of Water Resources and Irrigation as well as the planning of the National Holding Company for Drinking Water and Sanitation Services which falls under the Ministry of Housing, Utilities and Local Communities. At the local level both the Alexandria Company for Sanitary and Drainage and the Alexandria Company for Drinking Water prepare Master Plans. The Alexandria Governorate also prepares a development plan which is an inter-sectoral plan for the governorate area. The Ministry of Water Resources and Irrigation is in the process of piloting integrated water management at the local level. Locating the IUWMP for Alexandria within the overall planning framework for water is a challenge that the project will address during the planning process when the key stakeholders address decisions concerning mandates and functions related to IUWM.

Box 6. Support to Integrated Development Planning – An example from South Africa

In 1998 South African local government policy and legislation introduced integrated development planning for local government where every local and district municipality was required to prepare an integrated development plan (IDP). Previously separate sector plans were prepared at municipal level. The Department of Provincial and Local Government received technical support from the German Agency for Technical Cooperation (GTZ) and other

² Alexandria SWITCH documentation

specialists in the design of a pilot and a set of guidelines. Integrated development planning experts provided a planning framework and process to facilitate integration and then assisted pilot municipalities to undertake their planning processes. Following the pilot phase, a fully fledged support system was put in place comprising:

- an IDP Guide Pack, which provided a tested integrated planning and implementation management approach in a user-friendly manner based on lessons from the pilot
- a training programme for different stakeholders within the planning process including municipal managers, technical officers, planners, councillor
- district level support centres to provide technical and other support to municipalities, called the *planning, information and management support system (PIMSS)*, and
- mechanisms to access support from national sector departments
- integrated planning structures at the district, provincial and national levels with clear processes for co-ordination

The pilot phase lasted approximately 18 months where the technical team placed a large amount of emphasis on what the integrated planning process should look like, including processes for co-ordination and integration between different stakeholders. The planning process to address integration was only finalised after the first two years of implementation where sufficient lessons had been learnt.

Ten years later, many municipalities are still grappling with the integrated planning process and continue to receive planning support grants from national government to access the necessary technical expertise and ensure sufficient stakeholder participation. However the IDPs have become the key tool for local government to fulfil their integrated development role. As the Minister for Provincial and Local Government stated two years into the programme, ‘a planning practice had to be established which addressed all the challenges of integration, including sector participation, mediating conflicting interests, finding and gaining consensus on the best options for sustainability, and getting different institutions to really work together. Without dedicated time, resources, skills and technical expertise we could not have found out what integration was all about, or how to achieve it.’¹

How to achieve integrated planning?

Whilst both CEDARE and the stakeholders in Alexandria are aware of the importance of the planning process in producing the plan, this process has not been mapped out in any detail. The project currently runs the risk of embarking upon ‘fragmented planning’ whereby different stakeholders are requested to complete different sections of the plan rather than engaging in an integrated planning process. The planning process to develop the plan is crucial to the integration effort since it will determine the critical areas where stakeholders need to collaborate and take joint decisions.

Stakeholders from Alexandria have appealed for support in mapping out the planning process which addresses all the components necessary to achieve integrated water management at the local level. In this regard they have highlighted the need for a *framework* to guide the planning process and to operationalize integrated urban water management. Integrated planning requires an iterative process which is much more than a set of planning / strategic workshops and completing sections of a plan. It has been agreed that a core group with the Alexandria learning alliance be established to take responsibility for the development of the plan with support from CEDARE and other SWITCH partners.

Approach to achieving integrated urban water management

Learning Alliance Briefing Note 12 on Strategy Development advocates that in order to achieve a shared vision from a range of different scenarios, and to encourage stakeholders to take the leading role in the IUWM process, the learning alliance needs to embark upon a strategy development process. The process advocated is outlined in briefing note 12 and is summarised in the diagram below.

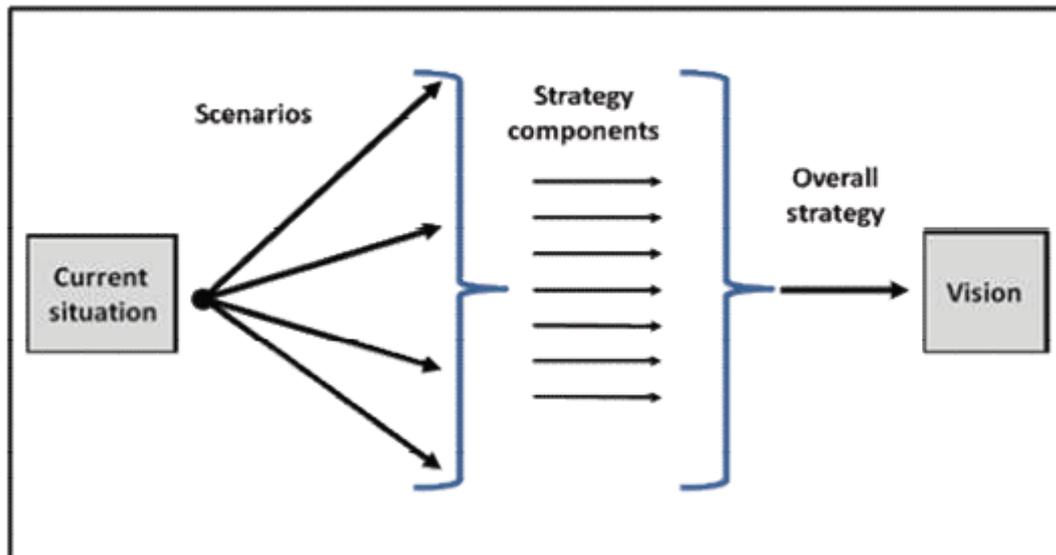


Figure 1: Strategy development based on visioning and scenario building

The SWITCH briefing note further states that strategy development (based on visioning and scenario building) is consistent with a project cycle management (PCM)⁴ approach to IUWM where there is also an emphasis on social and institutional learning. The project cycle management approach is illustrated below which the different phases of the cycle.

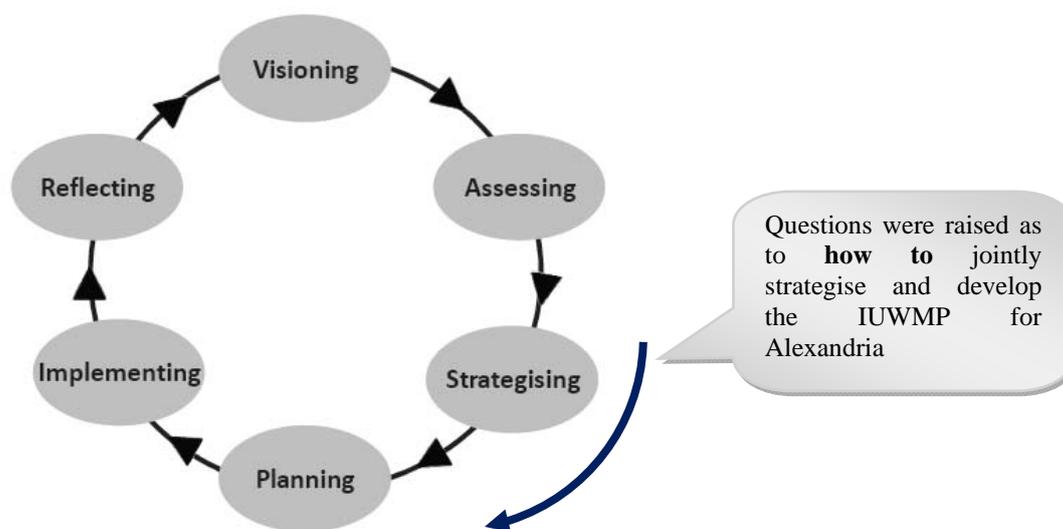


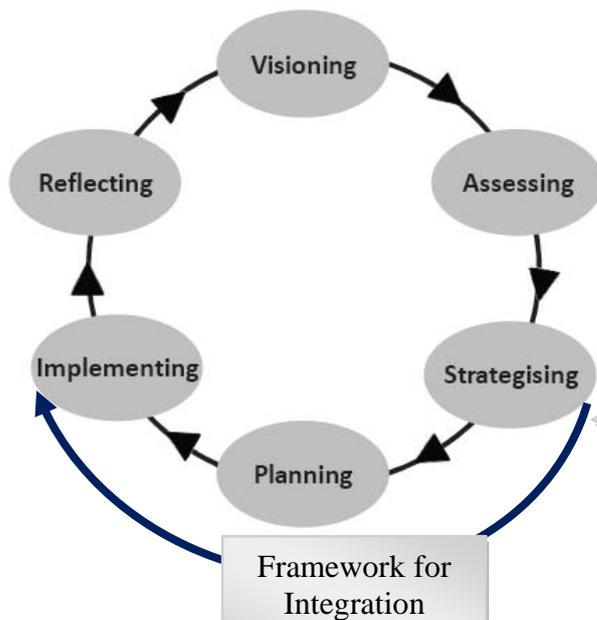
Figure 2: Project cycle management approach to addressing IUWM

Why doesn't Alexandria simply follow this approach? The learning alliance has already embarked upon a successful visioning exercise and under the research component of the project, various assessments are being undertaken. Why are stakeholders raising concerns about *how to proceed* into the strategising and planning phases? For example the head of the Alexandria Company for Drinking Water highlighted that "integrated water management at the local level is very complex and is much more than simply putting a plan in place".

This sentiment was echoed by other stakeholders who raised similar questions: “What is integrated water management, what does it mean for the different institutions, how does it happen, what needs to be done on the ground between the institutions to ensure that their work is integrated? These are questions we have to start answering. A plan cannot answer these questions. We have to work through these questions together to understand what it means for us here in Alexandria, from our different perspectives. We also need to be clear about the role of the facilitator. What does the facilitator do to assist the key stakeholders to integrate their work? This is not an easy task and we don’t have the answers yet. Before we start strategizing or planning we need to recognize the benefits of the plan and the benefits of integrating. The first job is not the planning. It is to set up a committee that can develop a framework for integration. This framework must map out the process of how we are going to work together. Who is going to co-ordinate the plan? How is the planning process going to happen? What mandates do we come with to the planning table? The framework must spell out all these steps so that the plan is a real process of what we all want and can commit to, not simply a document that sits on a shelf.”

Framework for integration

The framework needs to be a *framework towards achieving the plan and towards implementation of the plan*. “The framework would spell out the objectives of our joint efforts, the results we hope to achieve, the activities we must undertake, the deadlines, the timeframes. The plan is one of the results, but it is a major result. There are a whole lot of activities that need to happen to get to the plan, such as the strategic workshops, getting mandates from institutions, sorting out roles and responsibilities and the work that must be done to coordinate it all.” As another stakeholder pointed out, the strategy and the plan should not be confused with the framework. The framework has to address all the components to achieve integration, and how these components fit together. It has to address the structure/s for integration, the strategy, the IUWM plan, the processes and procedures between the key stakeholders, the capacity building needs of the institutions whose activities and outputs need to be coordinated / integrated and the overall coordination effort. The framework will provide the bigger picture of how integration will ultimately be achieved and will serve as a tool or mechanism to manage and monitor the success and impact of the initiative.



A *framework* is needed on *what needs to be done* through these phases which addresses all the components for integration: structure; research; planning; processes and procedures; scaling up technologies; capacity building; and co-ordination and management. It ensures that the institutional side of integration is addressed together with the water management side.

Framework for integration (to develop the IUWM plan and implement IUWM in Alexandria)
Purpose: To set out the objectives, steps, activities towards achieving coordination and joint working together for each of the components for integration – what needs to be done, by who and when

Component	Objective Purpose	Activities	Output/ outcome	Timeframe	Responsibility
Structure for integration (Advisory Committee)					
Establishing support unit					
IUWMP for Alexandria					
Processes for coordination					
Capacity building for integration					
Coordination and management					

Figure 3: A framework for integration to support the project cycle management approach

The framework will serve to *operationalise the integration process* for IUWM within Alexandria and needs to be supported by the necessary resources, skills, and access to specialist expertise. It needs to set out the processes to establish the structures, systems, research, planning, capacity support, and ongoing co-ordination and management required to achieve integrated water management at the local level.

Implementation of the framework requires a high level of political and operational buy-in and support from all the key institutional stakeholders in the water and local government sector. Achieving this type of participation, commitment and ownership for an integration process is extremely difficult to accomplish, particularly since integration invariably requires institutions to change the way they plan and make decisions. However, through the learning alliance, strategic workshops and strong relationships with local stakeholders, SWITCH in Alexandria has not only achieved buy-in and commitment to the goal of IUWM but has created an environment where

stakeholders are gearing up for implementation and appealing for additional support. Such a situation is unique in terms of an enabling institutional environment for piloting integration.

The time and scope of the assessment did not allow an analysis of the institutional readiness and capacity of the various stakeholders to plan and implement integrated water management. This is a complex assessment. However addressing capacity gaps and providing support to the different stakeholders would be part of the framework for achieving integration.

INSTITUTIONAL FRAMEWORK FOR INTEGRATED WATER MANAGEMENT

Ownership of the integration process

Who drives integrated water management at the local level? Who must ultimately take ownership of an IUWM plan and ensure that it is implemented?

These are the types of questions that the Alexandria SWITCH project and its learning alliance are asking. The current institutional environment is complex in that water involves a number of Ministries and entities at different levels, including the Ministry of Water Resources and Irrigation which has units at the governorate level (sometimes within the governorate and sometimes outside of the governorate), a National Water and Sanitation Company under which the Alexandria Drinking Water Holding Company and the Alexandria Sanitation Services Holding Company fall, together with other similar companies at the governorate level; the establishment of water boards; the Ministry of Housing that is responsible for potable water and sanitation; and other institutions such as the Environmental Agency of the Alexandria Governorate. Planning and implementation of the different sector plans tends to be centralized and relies on the different sectors and their respective Ministries. Cross sectoral and collaborative planning and implementation is thus a challenge, especially where it involves entities both vertically (national to local level) and horizontally (across Ministries). The IUWM plan and implementation thereof requires both vertical and horizontal collaboration.

Who should play the role of ensuring integration and co-ordination amongst these various institutions to achieve integrated water management for Alexandria? Whilst the SWITCH project is in place, the City Co-ordinator and the learning alliance facilitators play a role in addressing the various elements necessary for integration, and the linkages between these elements. But as the team correctly states, the project has an end and the processes necessary for integration and co-ordination must go on to ensure sustainability of the project. This is one of the challenges that is currently being addressed.

A further challenge is working with the different sectors and institutions so that there is a common understanding of how these different dimensions fit into the integrated urban water management process. Ensuring a common understanding is key towards enabling stakeholders to make constructive contributions to the IUWM planning process where roles and responsibilities are clarified. How each sector or institution fits into the planning process will provide direction on how to integrate the different dimensions in the plan.

Institutional arrangements to achieve longer term integration

It was emphasized that the project and its stakeholders are facing significant institutional questions towards achieving longer term integration to which they are currently trying to find solutions. These are challenges that many cities and local governments are going to face as integrated urban water management becomes a greater priority in local governance. Currently

there are no blue prints or models that Alexandria or any other cities can draw upon. The work in Alexandria will provide useful lessons to those that are grappling with similar challenges.

It is hoped that lessons can be learnt from the institutional arrangements that are being implemented as part of the national water resource planning process where units will be created within the different ministries and at the governorate level. The purpose of these units is to ensure greater co-ordination and integration both vertically and horizontally.

Box 7. Water units within other sector ministries / departments

The South Africa water sector adopted a similar approach (to that being considered by the MWRI) in implementing its sector wide approach (SWAP) towards scaling up water and sanitation services delivery. The water sector placed water specialists within other sector departments and within organized local government to strengthen the planning and decision making interface between those sectors and the water sector. The water sector paid for these specialists and ensured that whilst they worked within other sectors, they acted in the interests of the water sector with a view to facilitating better co-ordination. This approach proved successful in raising the profile of water and sanitation issues on the development agenda, as well as ensuring that water sector priorities were addressed within inter-sectoral planning.

A lack of sufficient co-ordination and cooperation between institutions in the planning and implementation of their inter-related mandates often results in conflicting objectives and the inefficient utilisation of scarce resources.

Although the key stakeholders in Alexandria recognize the importance of collaboration and the need for joint planning in the water sector, there are currently no mechanisms in place to pragmatically implement local integrated water management. As the MWRI promotes integrated water management at the local level, and as the demand for more efficient use of resources in Alexandria increases, greater collaboration and joint work on mandates between the key stakeholders will be key to the sustainable implementation of integrated water management. The stakeholders are not only aware of this need, but are also committed to achieving collaboration for the common goal of integrated water management. The major challenge they face is how to collaborate efficiently and effectively, and how to start pragmatically operationalising integrated water management at the local level. For example, what are the functional interfaces between the different stakeholders such as the Governorate, the Alexandria Company for Drinking Water, the Alexandria Company for Sanitary and Drainage, and the MWRI? What do these interfaces mean for cooperation at the policy, management and operational levels?

Whilst cooperation and collaboration is often acknowledged at the policy and management level, the existing structures, systems and procedures within institutions fall short of providing adequate mechanisms for achieving it.

Where the various stakeholders have shared, related, or inter-dependent responsibilities, a framework for integration needs to be developed without compromising any of the stakeholder's mandates, responsibilities or powers. Such a framework needs to address the following:

- A clear understanding of the roles and responsibilities of each institution involved in the integration process in order to coordinate the relationships (and core functions) between the institutions;
- An overall picture of the different institutions' planning processes and procedures at the operational level to determine where these processes must be coordinated and aligned;

- The necessary institutional mechanisms for cooperation and coordination between the institutions.

A gap in the current institutional arrangements within Alexandria is the lack of the necessary:

- institutionalized structure/s to promote and facilitate integration (including collaboration and coordination necessary for integration); and cooperative governance; and
- mechanisms and procedures to enable inter-institutional planning and relations.

The learning alliance is a representative structure that is fulfilling an interim role to promote and facilitate coordination, collaboration, and ultimately integrated water management; however the governance and management arrangements of the learning alliance need to be institutionalized at the local level in Alexandria. A process is needed to formalise and institutionalise the learning alliance and it is vital that CEDARE and the learning alliance follow through on this process to ensure the sustainability of the structure.

The implications of integrated urban water management are that whilst each of the different institutions involved have different roles and are independent of each other, they cannot achieve their common goal without coordinating and collaborating. In an integrated framework, the plans and decisions of each institution impacts on and influences the plans and decisions of the next.

Collaboration to achieve integration implies a different way of working where at minimum the institutions agree to:

- Foster cooperative relations between all stakeholders involved in the integration initiative where such cooperation is treated as a formal rather than informal or ad hoc transaction³;
- Support and assist each other where necessary, including sharing of information;
- Keep each other informed and consult on matters of common interest, with a clear communication network
- Coordinate and jointly problem solve on those activities that are relevant to the integration process;
- Determine and adhere to a set of agreed procedures between the institutions (including procedures to resolve disputes); and
- Identify the most appropriate institutional mechanism (structure and systems) to facilitate collaboration, where collaboration assists the institutions to interact towards achieving their common goal.

The institutional arrangements in Alexandria within which integration has to be achieved are complex. The diagram below illustrates some of the vertical and horizontal relations between the water sector and local government stakeholders.

³ Cooperative relations may be informal from time to time, however in order to achieve effective collaboration and integration, cooperation needs to be recognised as a set of processes to achieve integration and not simply as a set of informal transactions.

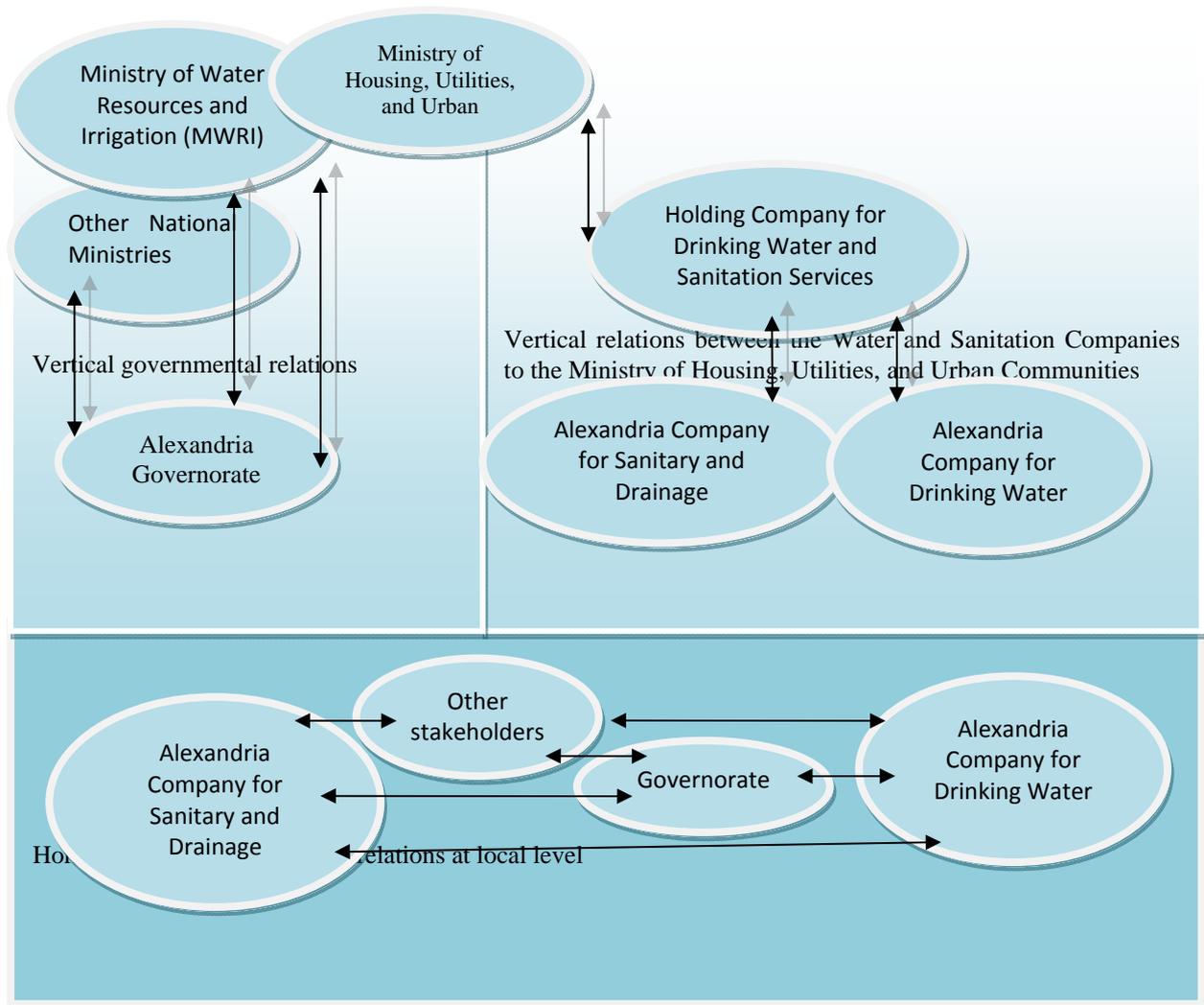


Figure 4: Vertical and horizontal relations between key stakeholders in the Alexandria water sector

The MWRI is responsible for water resources planning, however water supply and waste water planning are the responsibility of the water and waste water companies which fall under the Ministry of Housing, Utilities and Urban Communities. There are no existing mechanisms between the MWRI, the Ministry of Housing and the companies for water and sanitation to facilitate integrated water management planning at the local level. Each of these institutions has their own plans and planning arrangements.

Collaboration and structure to address integration

There are various sets of relations between the water stakeholders of Alexandria, where the relations are governed by different mandates and hierarchical powers. Planning and managing the inter-relationships within and between the existing sets of relations to achieve integrated water management at the local level requires a very carefully planned collaborative process. It is very important that this process does not create an opening for institutions to start duplicating functions performed elsewhere, or to perform functions for which they have no mandate. The collaborative arrangements therefore need to ensure that all of the institutions understand and respect the responsibilities, functions and autonomy of each other. This process takes time and matures as the institutions jointly work together to develop a common plan.

All the key stakeholders are convinced of the need for a ‘structure for integration’, and whilst stakeholders put forward ideas about the composition and the overall role of the structure, they

indicated that the details of how the structure would be established and how it would function still need to be determined. One of key issues in this regard was what authority the structure would have and what decisions it could take. Without any decision making powers, the structure runs the risk of becoming an information sharing platform or talk-shop, which is precisely the risk that stakeholders want to avoid.

The establishment of a new structure and determination of the structure's role and responsibilities may run the risk of overriding the autonomy of existing institutions, and / or providing an alternative channel to existing decision making bodies. Particularly where a number of key stakeholders are brought together, decisions may be taken in the interests of integrated water management that could become difficult to implement at the individual institutional level. Some decisions or plans may also pre-empt work that needs to be undertaken by the various institutions without having a full understanding of all the operational, resource, management and other issues that need to be taken into account. For this reason the modus operandi of the structure has to be very carefully considered and debated by the stakeholders, particularly those for whom integrated water management has a direct impact on their plans and operations.

To what extent do the institutions within Alexandria need to interact and cooperate with each other? The degree of cooperation between the different stakeholders will be determined by the framework for integration and the extent to which the water management functions and processes need to be integrated according to the IUWM plan for Alexandria.

Currently the institutions are functioning independently where separate plans are being developed with little or no consultation and limited sharing of information.⁴ The institutions are thus making independent decisions that impact on water management for Alexandria which may negatively impact on the operations of other institutions.

Through sharing information and realising the benefits of integrated water management, some of the learning alliance stakeholders have recognised that decisions within their institutions have an impact on the operations of other institutions. This has resulted in information sharing but there is currently no evidence of formal consultation across the institutions before decisions or actions are taken.

In order to achieve integrated urban water management, the institutions need to start coordinating their work. In some cases this may require alignment of policies and strategies so that functions and tasks can be properly coordinated. Coordination is required where the functions of the institutions are closely connected with key interfaces.

Integrated water management also requires decision making where all the relevant stakeholders need to take joint decisions to achieve the integration outcomes. Joint decision making is a high degree of cooperation which commits the parties to a particular activity, process, plan, project, or programme. Institutional stakeholders cannot engage in joint decision making without a mandate to do so. *Thus before any stakeholders engage in IUWM planning, they need to obtain the necessary mandate for integration and joint decision making from their governance / decision making structures.* Without this mandate the planning commitments of the different institutions may not materialise, thus rendering the integrated plan ineffective. It is through the participatory integrated planning process that the stakeholders will gain an understanding of what integration

⁴ Different stakeholders presented different views on the extent to which information is shared between the primary stakeholders in Alexandria.

entails for their institution and thus the full mandate for joint decision making is only likely to be forthcoming in the course of the planning process.

LESSONS LEARNED

The role of the Learning Alliance

The learning alliance is much more than a set of discrete meetings where sharing and learning takes place. It is a structure that is critical to the integration process and thus it is not an end in itself but rather a means to an end. The work that the learning alliance has to undertake is daunting and in this regard it is what happens between the learning alliance meetings that counts. Without support on how to address integration challenges it is unlikely that the alliance will easily achieve IUWM.

Sustainability of approach

How sustainable is the approach that is being undertaken in Alexandria? From an institutional point of view the indicators for sustainability are strong. The Ministry of Water Resources and Irrigation is piloting integrated water management at the local level with a view to rolling out IWM to all governorates. The project has got buy-in from the stakeholders concerning the formalisation and institutionalisation of the learning alliance and is currently facilitating a process to transform the learning alliance into an Advisory Committee within the Governorate. This achievement of success is not yet part of the indicators of the SWITCH project as presumably Alexandria is ahead of other cities in formalising its learning alliance. It is not easy to draw out replicable lessons in this particular instance, because the conditions in Alexandria are unique. For a 'project' such as SWITCH to achieve this level of 'institutional integration' into existing local governance structures is indeed remarkable. Normally government itself would need to initiate and facilitate processes to institutionalise the structures of its pilots into the existing institutional environment. It is vital that CEDARE and the learning alliance are supported to follow through this process so that the Advisory Committee is properly institutionalised within the Governorate. In this regard it would be useful for SWITCH to engage with CEDARE to determine support required to ensure the success of the Advisory Committee, for example an institutional expert to work with the stakeholders in Alexandria to determine roles and responsibilities, mandates, the links between the Committee and the various institutions, and how the Advisory Committee will function, will be of enormous value.

The sustainability of the Advisory Committee will depend upon the mandate and authority of the Committee as well as the actual functioning and commitment of the members of the Committee. Given the current individuals that will form part of the Advisory Committee it is likely that it will enjoy a high degree of authority and success. In particular the Secretary General of the Governorate and the representatives from the Alexandria Companies for Drinking Water and Sanitary and Drainage have already indicated the benefit they envisage from the participating in the Committee. The Learning Alliance in Alexandria has also built up the recognition and demand for increased collaboration. Lessons should be drawn from the City of Alexandria as to how this was achieved. As is highlighted above, the challenge is how to put it into practice and it would be a mistake on the part of SWITCH to underestimate the resources and support required to make it work (refer South African case study for integration).

Multi-pronged approach to achieving integration

The SWITCH approach in Alexandria can be described as a multi-pronged approach where it is addressing a whole range of components to achieve integration, from structure, to planning, to

testing technologies, to research, to establishing mechanisms for co-ordination. This is key to achieving integration, where the focus is broader than on the water challenges.

What about policy?

Can real integration be achieved in Alexandria in the absence of a clear policy for IUWM? Should SWITCH Alexandria make provision for a policy advocacy phase where the stakeholders promote the need for clear policy guidelines on IUWM? In Alexandria the intention to introduce IWM at the local level is already on the agenda and being promoted by the MWRI. It is unlikely that the project would have gained the level of commitment to integration without this enabling factor. However, ultimately the lessons learnt from the project need to be shared and fed back to the MWRI so that these lessons can influence the policy development process for IUWM. Provision should be made for this process. SWITCH as a global project could also be engaging more directly with cities to share lessons on the benefits of IUWM with a view to influencing policy within the different areas it has worked. In the Alexandria case, it was not only the enabling external environment that has facilitated commitment to the integration effort, it is also the results of the research and the sharing in the learning alliance where members are seeing the benefits that an integrated water management approach will bring them. Thus the project *created the demand for the objective it aims to achieve*.

Moving to the next level

The initial phases of establishing the learning alliance and facilitating meetings have taken place. Stakeholders are now ready to move to the next level of operation where their expectations are more than simply attending meetings or workshops. But they are not clear what it means to move to the next level and how to deepen their involvement and commitment to the integration process. There appears to be a lack of guidance on the ‘how to’ in terms of achieving joint action for implementation of integration. As one stakeholder noted, “there are many guidelines on what must be done, but not much on how to do it.” Another input: “Each of the companies has their own consultants and plans and ideas. They are developing plans for Alexandria till 2017. For the water company, what they have is enough, for what they have to do. The project has to show the benefit to them... to start integrating these plans and to change the plans.”

The comment that perhaps sums up the challenge facing Alexandria and the type of support it requires is the following: “What we face is not a matter of water management, it is integration, which is the whole purpose of the project – it is about integration. This is the main stress, how we achieve it so that we can achieve integrated water management.”

RECOMMENDATIONS

Formalising and institutionalising the learning alliance

The project requires specialist support to formalise and institutionalise the learning alliance, in terms of composition of the Advisory Committee, the role it will fulfil and how it fits into the governance structures of Alexandria. An institutional specialist to address this challenge would be beneficial towards ensuring a strong starting point for the effective functioning and sustainability of the structure.

Framework / strategy to achieve integration

The project is an integration project and needs a framework to facilitate the processes to achieve coordination and integration. Such a framework has to address the institutional arrangements for integration, capacity building for key stakeholders to properly participate in achieving integrated

water management both from an institutional and technical perspective, and how the actual co-ordination and management of the integration process will take place. Once the institutional arrangements for integration are established (structures, processes, procedures) the framework will no longer be required. The framework is much more than a plan for integrated water management for Alexandria. Part of the framework is the critical path to get to the plan, and to ensure that the correct process is put in place for integrated planning.

Specialist input on how to achieve integration from an institutional perspective

Apart from support to the establishment and functioning of the Advisory Committee, it is recommended that Alexandria receives support to address the institutional challenges to achieving integration in the water sector. For example, addressing issues such as how the institutions will need to adapt to the demands of integration. The ideal would be to find such an expert from Alexandria who can work on the ground with the key institutions, in particular the Governorate and the water companies.

Have resources to respond to learning alliance needs

The project needs to make provision to respond to the recommendations of the learning alliance. It could be argued that it is problematic to create a learning alliance with an emphasis on participatory processes and gaining the commitment of key stakeholders to take action, and then to not be able to respond to requests to support the activities, i.e. not having the necessary resources to respond to some of the critical interventions identified by the learning alliance. There needs to be provision within SWITCH for a fund and resources to respond to those activities / initiatives that are about integration and making integrated water management happen at the local level. The extent of support to be provided to each city will need to be based on what can be achieved with the resources towards achieving integrated water management. In the case of Alexandria, whilst there appear to be resources available for some activities, the major activities to make integration happen seem to be under-resourced. Should CEDARE and the stakeholders be searching for the additional resources, or should SWITCH be providing the support? This is something that needs to be discussed within SWITCH. However given the objectives of SWITCH and its desire to *show case cities* surely SWITCH has an interest in supporting the key activities that will achieve the objectives of the overall project?

Where does SWITCH draw the line between 'learning alliance' type activities and activities to ensure integration? Which activities can be funded by SWITCH, and which fall outside the scope of the budget? A learning alliance is not a mechanism to achieve integration! When does SWITCH move to the next level, from learning alliances to mechanisms for integration and what resources are available for this next step?

Role of the facilitating institution

What is the role of an institution such as CEDARE in attempts to achieve IUWM? At which point does CEDARE withdraw as the driver of the process but without risking the success of the project? CEDARE is committed to ensuring that the leadership of the integration effort is institutionalised within the governance structures of Alexandria. It is recommended that CEDARE should continue to play a key facilitation role as well as keeping the vision on track. The facilitation component will increase over time and is likely to require additional specialist support in terms of the integration support unit (to the Advisory Committee) proposed by some stakeholders. The unique circumstances in Alexandria should be kept in mind when making decisions concerning the ongoing support from CEDARE and the facilitation to be provided to the integration effort.

Dedicated personnel to support the integration effort

Part time facilitation will not be sufficient to achieve IUWM in Alexandria as the project formalises and institutionalises the integration arrangements. The framework for integration needs to address the resources required to support the facilitation and co-ordination activities of the initiative.

Key stakeholders must be at the centre of the IUWM planning process

The key institutional stakeholders from Alexandria must be at the centre of the IUWM planning process and not simply become rubber stamps of the plan. This implies an iterative and participatory planning process where there is opportunity for stakeholders to consult with their institutions. The stakeholders must have ownership of the plan for it to result in IUWM. Access to lessons learnt from other cities or examples of local integrated water management initiatives would be of value.

Monitoring to address how integration is taking place

The current monitoring objectives and indicators remain at a very high level in terms of determining the impact of the learning alliance and the extent to which the stakeholders are effectively co-ordinating their activities. In the case of Alexandria, integration lies at the heart of the entire initiative and therefore it is important that the project monitors how integration is taking place and what it is achieving. This will require the development of more targeted indicators, particularly related to the integrated planning process. For example, if correctly formulated the indicators could provide a very useful indication of the extent to which the plan is a result of joint strategising and decision making or the result of bringing different parts into a single framework without really addressing the interfaces between the parts. It would also be useful if the indicators could measure whether the different institutions are adjusting their own plans as a result of the integrated plan. Without these types of measures, the project will not be able to determine whether the IUWMP is resulting in integrated water management in practice.

Sharing across the cities

It is recommended that a joint cities workshop be held to share SWITCH experiences across the cities, in terms of utilising research and in terms of addressing integration issues. It is not sufficient to depend upon information sharing across web-sites. Stakeholders will benefit from discussing their challenges and how they are addressing these challenges, particularly the institutional challenges related to integration. A SWITCH conference for the cities is likely to yield many lessons and valuable insights.

Providing for policy advocacy

The project should ensure that there is adequate provision for an advocacy phase where the successes and lessons learnt from SWITCH can be promoted and shared in the broader policy context. This phase should include the participation of all the key stakeholders particularly those who directly benefit from integration so that they can share how they have benefitted from the integration effort. Where possible the project should come up with clear policy recommendations that address the complexities of achieving integration.

Make a decision as to whether Alexandria is to be a show case or not

The project needs to make a decision whether to support Alexandria as a potential show case city or to continue with the current situation. It is not surprising that the stakeholders are frustrated at what has happened in the SWITCH project, including those that are attempting to make it all

happen. This project is very ambitious but at the same time it has the potential to achieve its objective or a major part of its objective. Getting the institutional arrangements for IUWM right, is in itself a major achievement, however the project is addressing many components to ensure a holistic and integrated approach to the IUWM challenge. It has the right conditions in place, it has the right vision, it has the commitment, it has identified many of the activities in terms of research and the planning needs, the stakeholders are lined up for action, but it needs additional support – there is no other way to say it.

CONCLUSION

Alexandria is a SWITCH city with the potential of becoming a show case in integrated urban water management planning. In any pilot it is extremely difficult to ensure that all the necessary stakeholders are ‘on board’ and committed to the process. Alexandria presents an almost unique situation where not only are all the key stakeholders part of the process but they are also extremely committed to achieving integrated water resource management for their city. The question is whether it is achievable? Effective integrated planning will not result from different stakeholders ‘filling in’ different parts of a plan. The process of developing the plan is critical to the integration process. It is through the planning process that the key stakeholders will determine their roles and responsibilities and the activities they will need to undertake in order to *make integration happen*. This process can also assist in formalising and institutionalising the learning alliance as an Advisory Committee within the Governorate.

The comment that perhaps sums up the challenge facing Alexandria and the type of support it requires is the following: “What we face is not a matter of water management, it is integration, which is the whole purpose of the project – it is about integration. This is the main stress, how we achieve it so that we can achieve integrated water management.” The proposed framework for integration is viewed as a key intervention to assist in achieving integration from an institutional and a water perspective, where the necessary co-ordination and capacity building for integration is also addressed. The project is not a water resource management project, but about achieving integrated water management at the local level where a number of institutions are involved. This is different from water resource management that happens at the national level where the institutional arrangements are formalized and where the linkages between the institutions in terms of water responsibilities are less complex in terms of mandates.

Achieving sustainable IUWM for Alexandria requires a commitment from SWITCH to an *integration project*. CEDARE together with the learning alliance have created the conditions for the objectives of SWITCH to be a success in Alexandria. However the success and sustainability of the project depends on the support Alexandria receives in the second half of the project. The challenge now is how SWITCH responds to the Alexandria pilot. Does it take advantage of the potential for Alexandria to become a future show case city, through providing the additional resources and support to develop and implement a framework for integration, or does it limit its support to existing activities which fall short of achieving IUWM for Alexandria? There is no doubt that the stakeholders will continue to work towards their IUWM objective, and will ultimately achieve it, with or without SWITCH. The point is that SWITCH provides a vehicle for ensuring success, and for learning valuable lessons that can be shared with other cities. SWITCH has the potential and opportunities at this point in time to achieve all the components necessary for integrated water resource management in Alexandria. Even if Alexandria is not able to start implementing its IUWM plan during the timeframe of the project, it still will have put in place the framework for integration which in itself is a major success. Where else will SWITCH or any other project come across so many enabling factors for success? Can SWITCH as an innovative

project piloting integrated urban water management afford to pass up this opportunity, and if so, with what justification?

SWITCH has a unique pilot that has the potential of showing successful integrated water management at the local level which is not only about water, but about the institutional arrangements to achieve it. It is recommended that urgent steps be taken to make an informed decision concerning the future of the SWITCH project in Alexandria as a pilot for IUWM planning and implementation, taking into account the very favourable conditions for achieving success. The Alexandria project is a project for integration, not just a project focussing on one or other aspect of IUWM. It requires support on how to achieve integration.

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Annex 1: Interviewees

The following people were interviewed or provided written information for this paper.

Research providers	Facilitators and research managers	Research users
<ul style="list-style-type: none"> • Dr Mohamed Abd Rabo • Prof Ala'Yassen • Dr Charles Bachelor • Dr Adriaan Mels from University of Wageningen • Dr Dionysis Assimacopoulos from the National Technical University of Athens 	<ul style="list-style-type: none"> • Dr Khaled AbuZeid from CEDARE • Lama El Hatow from CEDARE • Dr Mohamed Abd Rabo • Ahmed Essam from CEDARE • Prof Ala'Yassen • Dr John Butterworth from IRC 	<ul style="list-style-type: none"> • Dr Helally Helally from the Sanitation Company of Alexandria • Engineer Nadia from the Water Company of Alexandria • Engineer Noha from the Water Company of Alexandria • Secretary General of the Alexandria Governorate

Annex 2: Projects and water related initiatives working in Alexandria

Potential for working in collaboration with other CEDARE EC-funded projects in Alexandria

- ALAMIM - SMAP II project working on ICZM in Lake Maryout area (Ms. Maha Akrouk – CEDARE) <http://smap.ew.eea.europa.eu/foi120392/prj885304/>
 - Looking at water quality and flows for Lake Maryout and the land use practices around the lake which influence lake water quality. Final product is a recommendation plan for improvement actions.
 - Data collection may coincide with territory of Maawa El Sayadeen
 - Similar stakeholders and partners.
 - Extensive GIS mapping?
 - Data sampling for Lake happening in next 2 weeks?
 - Project to be completed by X
- CIRCE project working on Climate Change on Coastal Area of Alexandria (Dr. Mohamed El Raey - CEDARE) http://www.circeproject.eu/index.php?option=com_content&task=view&id=22&Itemid=88
 - Climate change impacts and future scenarios to be part of IUWM Plan for the city of Alexandria
 - Mitigation and Adaptation strategies to be worked on collaboratively.
 - Has this been agreed?
 - Did Dr El Raey join us?
 - What is the Climate change project about – timeframe and outcomes?
- WADI Project on Sustainable management of Mediterranean fresh and transitional water bodies: a socioeconomic and environmental analysis of changes and trends to enhance and sustain stakeholders benefits – Lake Maryout area, Alexandria (Dr. Mohamed Abd Rabo – CEDARE) <http://www.wadi.unifi.it/>
 - What is this project's scope? How does it potentially fit with SWITCH?
- The possibility of CEDARE potentially having a conference or Learning Alliance Meeting combining all of these EC projects in Alexandria together (SWITCH, SMAP, CIRCE, and WADI)

Annex 3: Table of activities

Achievements from Month 13 to month 32

Activity	Specific objective	Task	Date Achieved
2 nd LA Meeting			2 nd LA meeting took place on March 14, 2007
3 rd LA meeting Visioning Workshop on SWITCH approach & scenario planning	Identify UWM challenges, possible measures, and indicators for sustainability		3 rd LA meeting took place on June 12, 2007
Social Inclusion Training in Delft	CEDARE participated in training		April 2007
Visioning Workshop	IUWM Vision and Scenario		Visioning workshop took place in July 2007.
Report on Visioning Workshop			Completed and disseminated to all LA members and theme 1 partners in August 2007.
Demo Site Proposal includes SI			November 2007
Learning Alliance Facilitation	Train Alexandria LA Facilitator		LA facilitator and Co-facilitator attended a process documentation training in Lodz, Poland and a monitoring and evaluation workshop in Accra, Ghana in July and December 2007 respectively.
Report on Stakeholder Analysis	Under wp 6.2	Identifying stakeholders in Alexandria	Completed with revisions in January 2008
1 st WDM Training	Train Alexandria & Other cities Professional on WDM, Put WDM on the Political Agenda	Select Professionals to be trained, Provide WDM training	1 st WDM Training took place from 11-14 November 2007.
4 th LA meeting	Discuss Demonstration Site and financing of activities.		4 th LA meeting took place on January 23 rd 2008.
Report on Case Studies for Social Inclusion	Case studies on slum areas in Alexandria		Report completed in December 2007.
Alexandria LA Regional Partners Meeting		P.Bury Travel Report	Meetings in December 2008
RIDA/Aquacycle meetings in Cairo/Alexandria	(RIDA) water resources assessment and develop scenarios modeling process to develop a IUWM strategy	Prepare needed data for modeling.	Meetings are to take place from January 20-24, 2008.
TOR for Alex Institutional mapping		Preparation of TOR for Alex Institutional mapping	January 2008

Activity	Specific objective	Task	Date Achieved
Identification of research needs for IUWM plan in city story			January 2008
Identification of research opportunities for IUWM in Aquacycle			January 2008
Reports reviewed on institutional cooperation		Reports on Institutional cooperation and coordination	March 2007
Reports reviewed on conceptual framework for financial evaluation		Reports on financial evaluation	March 2007
Media Coverage of SWITCH project			September 2007
2 nd Component of the WDM Training	Complete WDM Training of Professionals, Get Preliminary Indications on WDM Potential in Cities	Provide Training, Compile WDM preliminary data, Analyze data, Recommend best WDM measures for cities	May 2008
Report on WDM Training - Documentation			May 2008
Water Awareness Event	(public awareness)		March 2008
LA quarterly progress report			March 2008
Set up SWITCH Alexandria office	Office for LA facilitator based in Alexandria.	Prepare equipment for LA office (PC, phone, fax, desk, internet, etc.)	March 2008
	Discuss WDM Measures, Discuss outputs for WRA, Discuss demonstration activities and further research needed.	Prepare for WDM Training, TOR for WDM Study in Alexandria	April 2008
Update Alexandria SWITCH City Website			April 2008
Social Inclusion in IUWM Planning	Discuss Social Inclusion in IUWM Planning	Discuss demonstration activities.	July 2008

Annex 4: Monitoring Learning Alliance Progress

Objective 1: We know who learning alliance members are, and facilitate communication between them effectively

Indicators are the *availability of a record of learning alliance members* and their participation in learning alliance events and activities and the use of *effective communication tools* to share information between learning alliance members.

Scenarios for objective 1	Score
<ul style="list-style-type: none"> There is no accessible record of learning alliance members, and their involvement in various events and activities 	0
<ul style="list-style-type: none"> There is an out-of-date record of learning alliance members and their involvement in events and activities 	25
<ul style="list-style-type: none"> There is an up-to-date record of LA members and their involvement, and some basic communication tools are systematically used (e.g. email, phone) between events 	50 benchmark
<ul style="list-style-type: none"> There is an up-to-date record of LA members and their involvement, and archives are maintained through systematic use of advanced communication tools (e.g. a google group). 	75
<ul style="list-style-type: none"> Member information is accessible to all (e.g. online database), participation in all events and activities is systematically recorded and a combination of methods is used effectively (based on feedback received) to communicate between events. 	100
Justification of score (with date)	Score awarded
<p>December 07</p> <p>There is an up-to-date record of LA members and their involvement. Archives are maintained, and there is systematic communication between events using email and phone, as the google group is not an efficient tool for the people in Alexandria.</p>	65
<p>August 08</p> <p>There is an up-to-date record of LA members and their involvement. Archives are maintained, and there is systematic communication between events using email and phone, and more recently the SWITCH Alexandria website where all information is posted and shared regularly. Steps have been made to formalize the LA members by making them an advisory committee to the Governorate on water-related issues to allow for sustainability once the SWITCH project ends.</p>	75

Objective 2: Regular, effective and innovative events capture and sustain interest of learning alliance members

Indicators are the *regularity and quality of events* organized or supported by SWITCH learning alliances. These aspects may be assessed with reference to reports of activities, evaluation sessions and the follow-up generated by events.

Scenarios for objective 2	Score
<ul style="list-style-type: none"> Events (e.g. workshops, site visits, seminars) are not regular and only announced at the last minute. 	0
<ul style="list-style-type: none"> Regular events are held at least every six months, but have limited impact in capturing the interest of learning alliance members. 	25
<ul style="list-style-type: none"> Appropriate events are announced well in advance and use a mix of mainly standard methods to effectively engage interest of city stakeholders at least once 	50 benchmark

every 3 months.	
<ul style="list-style-type: none"> Quarterly (or more frequent) events use effective and innovative facilitation methods (not just presentations and discussion). 	75
<ul style="list-style-type: none"> Quarterly (or more frequent) innovative events result in high-quality reports (or other outputs) that capture content and ideas and are rapidly made available. 	100
Justification of score (with date)	Score awarded
<p>December 07</p> <p>Regular events are done every 3 months, except for the last period which included a 4 month gap. Events and LA meetings capture the interest of the LA members and other types of facilitation methods besides presentations and discussions are used such as working groups.</p>	50
<p>August 08</p> <p>Regular events are done. A Water Demand Management training was held for the participants in April, whereby an LA meeting was also held in April. LA meetings are regularly held, however there hasn't been one since April creating a 5 month gap. However interviews and one-on-one meetings with the LA members and coordination and communication are undertaken regularly to enhance contact between them. An LA meeting is scheduled soon to discuss IUWM Plan coordination.</p>	40

Objective 3: Demonstration activities are undertaken within a framework for scaling-up

Indicators are the availability of demonstration plans, the level of ownership of these plans, and commitments made to scaling-up implementation.

Scenarios for objective 3	Score
<ul style="list-style-type: none"> Demonstration activities are initiated without significant discussion in the learning alliance 	0
<ul style="list-style-type: none"> Demonstration activities are decided after limited consultation with some members of the learning alliance 	25
<ul style="list-style-type: none"> Demonstration activity plans are consistent and integrated within LA plans (city storylines) and are supported but without clear commitments to scaling-up 	50 benchmark
<ul style="list-style-type: none"> Learning alliance members with potential to scale up demonstration activities pro-actively made suggestions and proposals that were addressed in demonstration plans. 	75
<ul style="list-style-type: none"> Learning alliance members maintain a keen interest in demonstration activities at all stages and report back against their initial commitments to scale-up interventions. 	100
Justification of score (with date)	Score awarded
<p>December 07</p> <p>Demonstration activity plans are consistent and integrated within LA plans and city storylines, however there is not yet a clear idea of how scaling up will occur.</p>	35
<p>August 08</p> <p>Demonstration Proposal written in detail with technical interventions along with a feasibility study for analysis of different interventions. Social Inclusion work in Demo site conducted and assessment of people in progress. Scaling up of demo activities still not clear.</p>	50

Objective 4: The SWITCH team and learning alliance understand why change is occurring in IUWM, not just what happens

Indicators are the amount and quality of process documentation undertaken to capture the change process and its dimensions and motivations, and the sharing of that information to encourage learning.

Scenarios for objective 4	Score
<ul style="list-style-type: none"> No process documentation is in place 	0
<ul style="list-style-type: none"> Occasional ad-hoc process documentation is undertaken using some of available tools (including different media such as writing, photography, film etc) but with limited attention to detail or quality. 	25
<ul style="list-style-type: none"> A few process documentation tools are used regularly following a process documentation plan but results are not widely shared. 	50 benchmark
<ul style="list-style-type: none"> Several process documentation tools are used regularly and results are widely shared within the learning alliance 	75
<ul style="list-style-type: none"> Effective process documentation is used for reflection and analysis that results in improved project implementation plans 	100
Justification of score (with date)	Score awarded
December 07 Process documentation tools (writing, photography, film, etc.) are used regularly, but there is not yet a clear documentation plan in effect and it is only minimally shared. (The website should be a tool to help with this in the future).	30
August 08 Several process documentation tools are used regularly and results are widely shared within the learning alliance. This includes the SWITCH Alexandria website whereby documents, events, etc. are posted and updated regularly.	75

Alexandria - additional objective AL1: Stakeholders support the issues of social inclusion and efforts to eradicate exclusion are made.

Indicators are how research incorporates marginalized groups and their participation in the learning alliance and city council.

Scenarios for objective AL1	Score
<ul style="list-style-type: none"> Research has not considered marginalized groups and they are not represented at the learning alliance or city council 	0
<ul style="list-style-type: none"> Research considered marginalized groups but without their input as they are not members of learning alliance or represented on city council 	25
<ul style="list-style-type: none"> Research considers marginalized groups and uses their inputs but they are not members of learning alliance. 	50 benchmark
<ul style="list-style-type: none"> Some research is directed towards social inclusion with the input of marginalized groups that are members of learning alliance, but not very active 	75
<ul style="list-style-type: none"> Research on different themes is directed towards social inclusion, with input of marginalized groups, and they are active members of the learning alliance and city council 	100
Justification of score (with date)	Score awarded
December 07	45

Research considers the marginalized groups and will be using their input in the research by means of questionnaires and surveys but they are not members of the learning alliance.	
August 08 Research considers the marginalized groups and is currently using their inputs gained from meetings in the demo site for the research and technical interventions to be done in the demo site. This was done in the Social Inclusion work in the demo site. A social inclusion workshop is planned soon, whereby all LA members and the villagers will be present in. These groups however are not members of the learning alliance.	60

Alexandria - additional objective AL2: Wide participation and support for the Integrated Urban Water Management (IUWM) planning process.

Indicators are the level of participation of learning alliance members in different tasks and aspects of the planning process.

Scenarios for objective AL2	Score
• No present participation of learning alliance members in IUWM planning process.	0
• Learning alliance members participate in meetings and provide data but do not make other significant inputs.	25
• Learning alliance members occasionally participate in the process and are making active contributions to key discussions.	50 benchmark
• Inputs made by all learning alliance members, and some are part of IUWM planning teams contributing to analysis.	75
• Some learning alliance members are full members of the core IUWM planning team and report back to the entire learning alliance.	100
Justification of score (with date)	Score awarded
December 07 Inputs are made by all LA members towards the IUWM plan and active contributions to key discussions are done, but only some key LA members are a part of the IUWM planning team.	70
August 08 Inputs are made by all LA members towards the IUWM plan and active contributions to key discussions are done. TORs for LA members contributing to the IUWM Plan have been made and contributions are being formalized. Reporting back by the IUWM Planning team to the entire LA has not yet been done since we are still in the early stages.	75