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ACWUA

Reader - Good Practices
Public Awareness Experiences in the MENA Region

First Edition

Programme: Strengthening the MENA Water Sector through Regional Networking and Training (MENA WANT)

Reader - Good Practices

Public Awareness Experiences in the MENA Region

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0 Foreword by ACWUA

Eng. Khaldon H. Khashman

Secretary General, ACWUA

The Public Awareness Technical Working Group (PA-TWG) has been recently formulated and integrated into ACWUA's technical working group's structure. In December **2012**, the launching of the Public Awareness TWG and a selection of **7** members took place in Cairo, Egypt as a result of various PA activities, extended for over **5** years of meetings and workshops for PA specialists in the water sector from the Arab region.

The Arab Countries Water Utilities Association (ACWUA) took the initiative and adopted the establishment of the new technical working group; to become the leading platform for regional PA specialists in sharing PA approaches, knowledge and best practices in water and wastewater utilities in the Arab world.

PA-TWG Members who come from **7** Arab countries representing their utilities and respective countries; are assigned to play an important role in shedding light over PA methods and techniques that aims to improve the efficiency, quality of service and the level of performance at water and sanitation services providers.

PA Experts from water utilities have contributed to this reader bringing in the essence of their wide experience in managing PA and marketing campaigns deployed in their utilities and countries.

This Publication presents **9** case studies from Algeria, Lebanon, Morocco, Palestine, Tunisia and Yemen. Each case study demonstrates lessons learned, and shows the different PA tools used in each country, which make this reader an interesting one to explore besides the great value it holds. It is considered an important reference for promoting PA best practices towards sustainable management of water resources and utilities in the Arab region.

I am proud to say that this reader "Good Practices Public Awareness Experiences in the MENA Region" is the fruit of more than **5** years of collaborated efforts by ACWUA & GIZ in the water public awareness field. My deepest thanks go to the authors of this reader for their hard work and high level of commitment. Their keen to contribute with their expertise in this production, can be clearly seen from the high quality content of this reader.

I would like also to thank the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) for supporting the production of this publication.

Last but not least, I would like to thank ACWUA Secretariat team, the chairperson of the PA-TWG and ACWUA Board Member; (Eng. Jihad Abu Jamous), and the PA-TWG facilitator (Mr. Jamal Al Salah), for all their integrated efforts since the launching of the PA-TWG and until the point that this publication became available to serve the water and sanitation sector in the region.

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تقدمة من الجمعية العربية لمرافق المياه (أكوا)

المهندس خلدون حسين الخشمان

أمين عام الجمعية العربية لمرافق المياه

قامت الجمعية العربية لمرافق المياه (اكوا) مؤخراً بتشكيل مجموعة عمل التوعية المائية وضمها لمجموعاتها الفنية وذلك كتتويج لجهود امتدت على مدى خمس سنوات من الاجتماعات واللقاءات وورش العمل لخبراء التوعية المائية من الدول العربية بتنظيم من الجمعية العربية لمرافق المياه وبالتعاون مع الوكالة الألمانية للتعاون الدولي (GIZ).

تم إطلاق أعمال مجموعة عمل التوعية المائية في كانون الأول من العام **2012** في القاهرة، بعضوية سبعة من المتخصصين في مجال التوعية في قطاع المياه من الدول العربية. تبنت الجمعية العربية لمرافق المياه من خلال تأسيسها لمجموعة عمل التوعية المائية دوراً ريادياً لتكون بذلك منبراً إقليمياً لتبادل المعرفة والممارسات الفضلى وأساليب التوعية في قطاع المياه والصرف الصحي في العالم العربي.

ويتولى أعضاء مجموعة عمل التوعية المائية الممثلين لمرافق المياه من الدول الأعضاء لدى الجمعية، العديد من المسؤوليات؛ من أهمها تسليط الضوء على الأساليب والتقنيات المتبعة في التوعية المائية والتي تهدف إلى تحسين الكفاءة ومستوى الأداء لدى مقدمي خدمات المياه والصرف الصحي وبالتالي إلى تحسين جودة الخدمات المقدمة. تم إنجاز هذا العمل بجهود مجموعة من الخبراء في مجال التوعية المائية من خلال تقديمهم لخلاصة خبراتهم العملية الواسعة في إدارة حملات التسويق والتوعية التي أشرفوا على تنفيذها في مرافق المياه في دولهم، والتي تتميز باختلافهامن دولة لأخرى.

يحتوي هذا الكتاب على تسع حالات دراسية من كل من: الأردن، الجزائر، لبنان، المغرب، تونس، فلسطين، اليمن. تعرض كل حالة دراسية مجموعة من الدروس المستفادة، كما يظهر جلياً التنوع في أدوات وأساليب التوعية المتبعة في كل دولة، مما يجذب انتباه القارئ لما يحمله هذا الكتاب من المتعة والفائدة في ذات الوقت، بل ويعد مرجعاً هاماً يهدف لترويج الممارسات الفضلى في التوعية نحو إدارة مستدامة لموارد المياه وإدارة المرافق في الدول العربية.

ما تم تقديمه اليوم في هذا العمل «الممارسات الفضلى في التوعية المائية» هو نتاج ما يزيد على الخمس سنوات من الجهود والتعاون بين الجمعية العربية لمرافق المياه والوكالة الألمانية للتعاون الدولي (GIZ) في مجال التوعية في قطاع المياه في الول العربية. وإنني إذ أتقدم بالشكر للوكالة الألمانية للتعاون الدولي (GIZ) لدعمها لكافة أعمال مجموعة عمل «التوعية المائية» وإصدارها لهذه الطبعة، أود أن أعرب عن فخري بهذا الإنجاز العظيم الذي ما كان له أن يتم لولا تضافر الجهود التي ساهمت بإخراجه بهذه الصورة المشرفة.

أتوجه بشكر خاص لمؤلفي هذا الكتاب: أعضاء مجموعة عمل «التوعية المائية»، لما أظهروه من التزام حقيقي ولما بذلوه من جهود من خلال إسهامهم بخبراتهم لإنجاح هذا العمل وإخراجه بهذه الجودة العالية.

وفي النهاية، لا يسعني إلا أن أتقدم بالشكر الجزيل لفريق الأمانة العامة للجمعية العربية لمرافق المياه ورئيس مجموعة عمل التوعية المائية وعضو مجلس إدارة أكوا (المهندسة جهاد أبو جاموس) واستشاري مجموعة العمل (السيد جمال الصلاح) لمتابعتهم الحثيثة ولكافة الجهود التي أثمرت في إصدار هذا المرجع الذي يهدف لخدمة قطاع المياه والصرف الصحي في المنطقة العربية.

مع خالص تقديري،،،

0 Foreword by PA-TWG Chairperson

Eng. Jihad Abu Jamous

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Since **2006**, ACWUA and GIZ invested tremendous efforts to spread the knowledge and information across the water service providers in the MENA region. Public Awareness Technical Working Group (PA-TWG) was established in December **2012** to play a leading role in identifying, reviewing, and sharing approaches, and knowledge and best practices of the countries in this area. Being the Chairperson for this Working Group, I am proud that the good practices and the success stories of the members will be published in this Reader.

Alongside this Reader, ACWUA carried out many activities to harmonize a key message regarding best practices in the conservation and the management of the water resources and utilities in the MENA region. This has been supported by the strong believe in the importance of the Public Awareness role in this vital important sector.

The Writers of this Reader furnished to us the core of their experience in:

- Water conservation;
- Water Resources protection and Water Pollution Control;
- Social Marketing Principles and Techniques in behavior change;
- Customer Relationship Management in the Water Sector;
- Sustainable Management of Drinking Water and Sanitation Projects;
- Awareness Activities and Information campaigns in schools;
- Public Awareness in the Water Sector;
- Methodology Sheets in Environmental Education;
- Management of Water Supply Services in Rural Areas in Morocco.

As we share common values we also share common challenges and every case study in this Reader shed the light on the common provocations and exchanged the results and the outcomes of rich previous experience.

0 The MENA WANT program, implemented by the GIZ

The Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH is commissioned by the German Ministry for Economic Cooperation and Development (BMZ) to implement the capacity building program "Strengthening the MENA Water Sector through Regional Networking and Training (MENA-WANT)". Since **2009**, the GIZ cooperates with ACWUA and its members in the MENA region to enhance the performance of the water sector, with a focus on urban areas. Actors are enabled to manage water resources by applying principles of good water governance and good practices to enhance commercial and technical management in urban water and wastewater supply. For further information: www.mena-water.net and www.water-impact-guidebook.net, or www.acwua.org

The component "Public Awareness in Water Sector" is part of a series of training activities and study tours under the MENA WANT program (and its predecessor program) that started already in **2006** with partner dialogues and training courses. The following five key issues are addressed under the umbrella term Public Awareness (PA): Social Marketing, PA Campaigns, Customer Relationships, PA for natural con-servation and water resources protection from pollution, Public-Private Partnership, and Public involvement and Public participation in managing the water sector and its services.

In **2011**, ACWUA has established the PA-Network and the technical working group (PA-TWG) with support from GIZ. Members are senior managers and experienced practitioners working in water utilities in those departments that are dealing with hu-man resources development, public relation, communication or customer care. This reader is the product of the members of the Public Awareness Team and summariz-es some of the "Good Practices" that are implemented in the MENA region.

Reader - Good Practices

Public Awareness Experiences in the MENA Region

1 Public Awareness Campaign-Water Conservation: Case Study: Nablus City, Palestine

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Abstract

Limited water resources are among the most important environmental problems in Palestine. Indeed, Palestinians are faced with the issues of water scarcity and lack of access to their water resources. The quantity of available water is not enough to satisfy demand for water per Palestinian.

Like other cities and towns in Palestine, the city of Nablus is faced with the challenge of managing water resources. The Water Supply and Sanitation Department (WSSD) of the Nablus Municipality is responsible for water supply and sanitation services to Nablus city and its vicinity (about **200,000** inhabitants).

In order to cope with tremendous population growth and the ensuing need for potable water, an efficient management of limited water resources reliant on short and long term actions was adopted. In the short term, WSSD considered the option of public awareness campaigns promoting water conservation. WSSD and the German Organization for Technical Cooperation (GTZ) coordinated their efforts to this effect. The main aims of the campaign were to raise public awareness and education about water conservation, strengthen the relationship between the municipality and the communities, and encourage people's willingness to pay their water bills. Many activities were conducted over the **2006-2009** period, targeting children at school and at summer camps; teachers; women at home or in women's centers; religious leaders; and the general public.

Furthermore, in **2010**, WSSD organized a successful national campaign on water scarcity in collaboration with other water services providers from the Water Union of Service Providers (WUSP). Several activities were conducted. However, the most noteworthy success from this campaign is the way in which theatre was used as an awareness-raising tool.

In the present paper, we will discuss the major outcomes of the aforementioned awareness programs, and conclude by outliningthe six critical success factors in the successful promotion of conservation.

1 | 1 Introduction

According to the Palestinian Central Bureau of Statistics (PCBS), the total population of the Palestinian Territory in mid-**2011** was about **4.17** million: **2.58** million in the West Bank and **1.59** million in the Gaza Strip (see map **1**, Map of Palestine). Rainwater is the main source of water and it fluctuates in volume from one year to another. The average yearly amount of rain is **10** thousand million cubic meters, of which **60-70%** evaporates, **25%** is seepage to the ground, and the remaining amount goes directly to the sea. The average annual rainfall ranges from **100** to **650** millimeters (Maan report, **2008**). Ground water is another main source of water in Palestine. Since the occupation in **1967**, the Palestinian population has faced many environmental and water problems: [1)] they do not have access to their water, as Israel controls over

Map 1: Map of Palestine (Almasri el al, 2009)

85% of all available ground water resources in the West Bank;2) limited resources; 3) inadequate environmental laws and regulations; 4) pollution; 5) high population growth rate (3.5% according to a 2007 census); 6) poverty; and 7) lack of public awareness.

Current environmental deterioration in Palestine is a result of deliberate destruction by the Israeli occupation. This was characterized by systematic destruction of water wells and other water and sewage infrastructure, and Israeli authorities not allowing Palestinian authorities to supply adequate water to the population. This, in turn, has led to a lower per capita consumption rate in Palestine (only 25 to 30 m³ per year) than in Israel (between 90 to100 m³ per year).

Water is still a heated issue in the final bilateral negotiations with the occupying forces. Currently, Palestinians in the West Bank receive drinking water from: the Israeli water company through public water networks; from the West Bank Water Department's own wells; from municipal water wells; by collecting the rainwater; and some communities are supplied by water tankers (which is very costly -1 cubic meter costs about 20 US$).

The city of Nablus, considered to be the biggest city in the West Bank, is faced with major challenges in managing water sources like other Palestinian cities and towns. Water supply and sanitation services to Nablus city and its vicinity are provided by WSSD in the Nablus Municipality. WSSD offers its services to about 200,000 inhabitants spread out across Nablus city, four refugee camps and nearby villages. In order to cope with the tremendous increase in population and ensuing increased need for potable water, an efficient management of limited water resources reliant on short and long term actions must be adopted. In the short term, WSSD has been conducting public awareness campaigns about water conservation in collaboration with the German Organization for Technical Cooperation (GTZ). The main aims of this program, started in 2006, are the following:

1. To raise public awareness and education about water conservation
2. To strengthen the relationship between the municipality and the communities, and to encourage the people's willingness to pay their water bills.

1 | 2 Water Resources Management – Public Awareness Case Study: Nablus City

Nablus is a Palestinian city located in northern West Bank, 60 kilometers north of Jerusalem and 40 kilometers east of the Mediterranean Sea (see Map 1, Map of Palestine). As in many communities around the world, water has played a key role in Nablus City's location and growth of its population. The city has a semi-arid climate; and with an average annual rainfall of 658 mm, Nablus relies completely on groundwater for its water supply since surface water resources are non-existent.

Nablus Municipality's water and wastewater systems cover a service area with a population

of about **200,000** inhabitants. Approximately **96**% to **100**% of households are connected to the wastewater and water networks, respectively. In **2011**, reported water production from the wells and springs was **8.97** million cubic meters, with a **20**% contribution from the springs; billed sales amounted to **6.02** million cubic meters, and non-revenue water (NRW) amounted to **2.95** million cubic meters (**34**% of total water production). Estimated average per capita consumption was **79** liters. Water in Nablus is used by the domestic, industrial and commercial sectors. In **2007**, both domestic and commercial uses accounted for **92.47**% of total water consumption. The total number of household connections (water meters) in **2012** exceeds **45,000**.

There are two approaches to water demand management:

1. Increasing water resources by:
    a. Exploiting surface and ground water resources
    b. Digging new wells
    c. Harvesting rainwater
    d. Reusing treated wastewater
    e. Reusing treated grey water
2. Using available water resources efficiently through:
    a. Water conservation (public awareness and behavior change, updating households' water networks...)
    b. Water loss reduction in the public water supply system

Water conservation must be seen as a basic component of integrated water resources management, and public awareness and education are essential tools for guaranteeing public participation and involvement in water conservation efforts (IDRC, **2009**).

> "Public awareness is an essential component of water conservation programmes and therefore the cooperation of everyone, including consumers, service providers and policy-makers in designing and implementing conservation measures is essential. Both education and raising awareness are indispensable aids if attitudes need to be changed. To achieve greater cooperation and involvement, the public must be ready to understand its water supply situation. This includes the cost of delivering water, water resource status and conservation needs, and the objectives of water conservation. The public needs to be aware of its role in conserving water resources. This should be done with consideration to the physical, biological and socioeconomic environment and to human development by using effective formal and informal methods of communication"
>
> **(Atalah et el, 1999).**

Conservation strategies have two broad types of motivating drivers: 1) a moral one (good for society) and 2) an economic one (since it is economically attractive). Both drivers

Are well tailored to the particular conditions in the city of Nablus. Themoral driver is consistent with the particular culture and religion that advocates water conservation. The economic driver, on the other hand, faces the challenge of deteriorating economic conditions in the city. Policies should be instituted to implement improved management, efficient use, and conservation of water resources. Such policies could aid those consumers who wish to reduce water consumption (Almasri et al, **2009**). Using Nablus City as a case study, we will highlight the challenges and the problems Palestinians face in managing water resources and the realistic solution that has been implemented. We will also demonstrate Nablus Municipality's experience in conducting a public awareness campaign on water conservation as a tool for integrated water resources management.

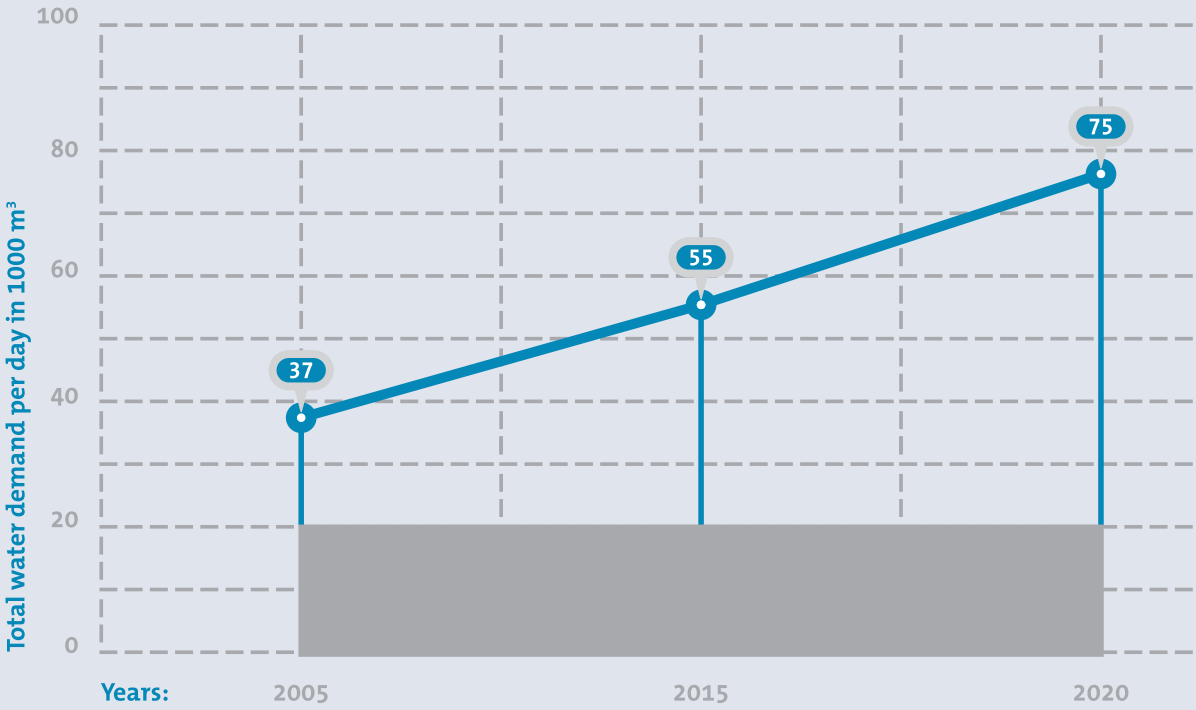

Figure 1: Relation between Water Demand and Available Water for period 2005-2025

1 | 3 Nablus City: Challenges in Water Resources Management

Nablus City's water sector is faced with a number of challenges and obstacles. The main ones are highlighted in the following paragraph:

1. **Limited water resources:** Nablus City water resources are limited; and the last water resources development took place in **1996**. Ever since, no new water resources have been developed, despite an ongoing demographic increase and rapid urbanization. With the continued population growth in the city and in the supplied villages and camps, unmet water demand (demand minus availability) has increased over time (Almasri et al, **2009**). To cover citizens' basic needs, additional wells with a total capacity of **800** cubic meters per hour are needed.
   Figure **1** shows the deficit between existing volumes of available water and water demand. As the graph indicates, water demand in **2025** will be **3.4** times the quantities of available water if no additional water sources are added.
2. **Excessive pressure in the distribution system:** Due to Nablus City's topography, the pressure in the water distribution network exhibits large discrepancies: extreme pressures are found at low altitudes or at locations in close proximity to the pumping stations.
3. **Water leakage and losses:** Nablus City's water distribution network exhibits a high percentage of water leakage and losses (water loss was over **47**% in **1997**), leading to a loss of resources and revenues. Water leakages vary throughout the network depending on different factors such as pipe age, pressure magnitudes, proximity to the water source, improper pipe burial, and the level of maintenance and repairs. It is very difficult to assess water losses in the city of Nablus due to the absence and lack of accurate information on the volumes of (**1**) water pumped from the wells and springs, (**2**) water supplied from the pumping stations to the service areas, and (**3**) water actually consumed.
4. **Intermittent Water Supply:** The WSSD pumps water intermittently since the amount of available water is inferior to demand.

The Department follows a water-pumping schedule for the different zones of the city, and water is pumped once every three days during the wintertime and once every six days during summer. Depending on the area, population size and time of the year, water supply (or pumping) duration varies from **9** to **20** hours.

5. **Conflict:** Conflict arises between citizens and the WSSD regarding each party's responsibilities and duties. Most citizens refuse to pay their water bills—and this is an issue that affects the level and sustainability of services provided to them.
6. **Lack of public awareness:** Lack of public awareness about environmental issues such as water conservation, solid waste, wastewater, etc.

1 | 4 Public awareness programs

In this context, two public awareness programs will be discussed. The first one was implemented by WSSD in **2006-2009**; the second one by WUSP in **2010-2011** and involved using theater as a major tool during the program's awareness-raising activities. In the following sections of this paper, we will further explore the programs and activities carried out during the **2006-2009** and **2010-2011** periods.

1 | 4.1 2006-2009 Public Awareness Program

1 | 4.1.1 Objectives

The WSSD, in cooperation with GTZ, adopted water conservation as a strategy for managing limited water resources and decided to design and implement the public awareness program to raise awareness among members of the community.

The objectives of the campaign were as follows:

1. Raise public awareness about water conservation
2. Strengthen the relationship between WSSD/NM and the communities
3. Increase people's willingness to pay their water bills
4. Raise public awareness about different environmental issues relevant to water and sanitation.

1 | 4.1.2 Target Groups

The campaign targeted the following groups:

- Students at schools and in summers clubs
- Women
- Religious leaders (Imams, preachers)
- The general public.

1 | 4.1.3 Partners

1. German Technical Cooperation Agency (GTZ)
2. Various departments in the municipality
3. The Ministry of Education
4. The Ministry of Endowments
5. The Palestinian Water Authority
6. The Ministry of Health
7. Palestinian Hydrological Groups

1 | 4.1.4 Activities Performed During the 2006-2009 Period

To achieve its objective of promoting water conservation and encouraging citizens to pay water bills, WSSD, along with German-Palestinian collaboration enabled by GTZ, conducted several activities during the **2006-2009**. The following illustrates some of these activities:

1. **Summer Camps:** 1) to encourage children to conserve water at home and share water-conservation messages to their families; and 2) to form committees of children to spread the message to others (a child to child approach).
2. **Conducting workshops and meetings with various target groups:** 1) children at different summer camps and at school; 2) employees at various government and NGO institutes; 3) women at women centers; and 4) Imams and preachers (raising awareness and changing attitudes to water through religion has proven to be very effective as there is great receptiveness to religious messages).
3. **Printed materials:**
   a. **2007**, **2009** Agenda
   b. Calendar
   c. Note books
   d. Spots

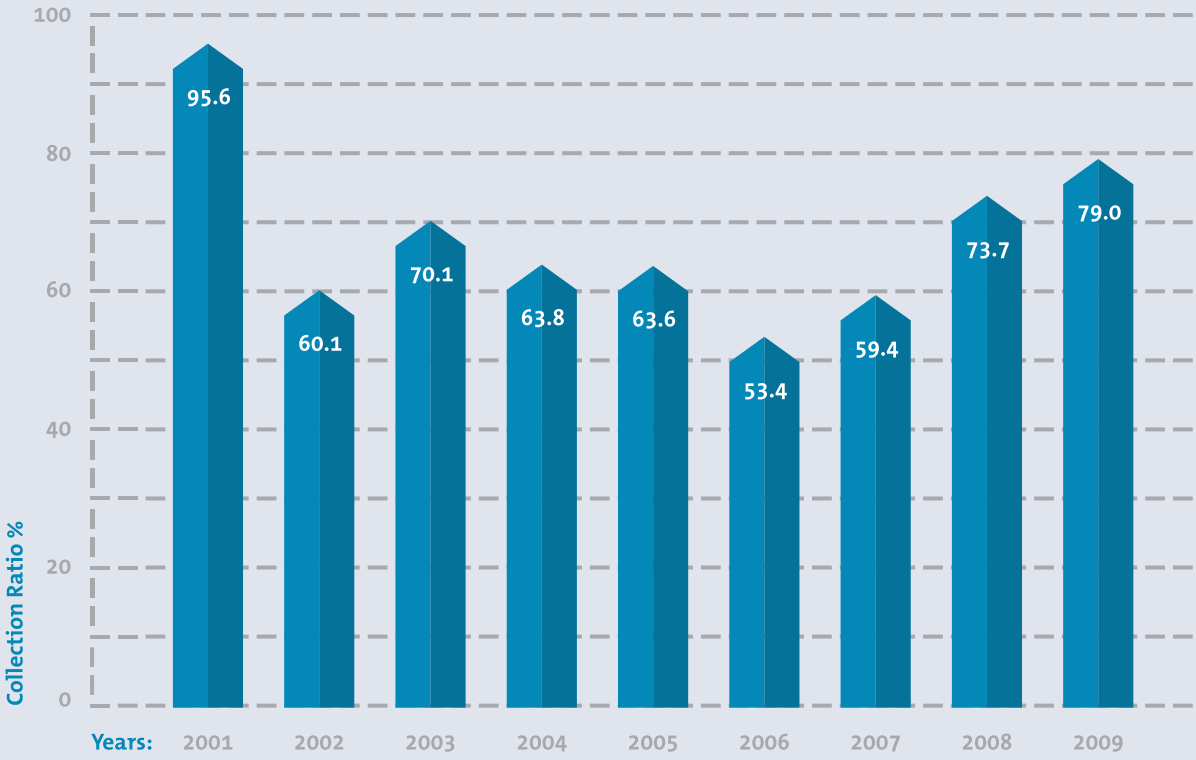

Figure 2: Collection ratio 2001- 2009

e. Posters
f. Brochure
g. Bags
h. Billboards
i. Other materials

4. **Five television spots:** on raising public awareness about water conservation, encouraging citizens to pay their water bills, and prompting people to maintain and fix their own water and sanitary facilities.
5. **Producing video clips for TV broadcasting:** within specified deadlines, and published at regular intervals. The songs were mainly about water and conveyed a specific message for the public.
6. **A documentary:** about the importance of water, water resources in the city, water shortage and ways of controlling water consumption. The film is **15** minutes long and has been produced in both Arabic and English.
7. **TV interviews:** with the Deputy Mayor of Nablus Municipality and the WSSD manager, which focused on the water shortage issues and ways of controlling water consumption.
8. **A youth program:** to give young people necessary tools for solving of water shortage problems.
9. **Organizing Faison** water and the environment.
10. **Competitions among students.**
11. **Prizes and incentives:** for people committed to paying their water bills.
12. **Capacity-building:** of staff involved in the awareness program, through additional training courses and sharing of experiences by visiting with other local and regional institutes in the field.

1 | 4.1.5 Messages

The most important items in the awareness cycle include specific information that is associated with the target group's knowledge and behaviors.

The following are some of the messages that were used in the awareness campaign:

- Water resources are limited, so let's conserve them
- Do not waste water, even if you have a river
- "Gather and conserve and every drop of water"

- Water is treasure and prosperity; we have to conserve it in winter as well as in summer
- We can live without gold but cannot live without water
- Water scarcity is ringing alarm bells
- By conserving water our life become affluent
- Water is to drink; it is not a plaything to be wasted
- Irrigate during the night to save water and use drip irrigation

1 | 4.1.6 Budget

32,000 Euro was the allocated budget for activities during the **2006- 2009** period. The German–Palestinian Water Program contributed **80%** and local contributions amounted to **20%**.

1 | 4.1.7 Outcomes of the Awareness Program

1. An increase in the water bill collection ratio from **53.4%** in **2006** to **79%** in **2009**. Figure **2** illustrates the collection ratio for the **2001-2009** period.
2. Customers were moved into lower consumption categories in the tariff structure. Table **1** compares this change between **2007** and **2008**.

Categories	2007	2008
0-20 m^3	87%	87.7%
20-40 m^3	11%	10.6%
> 40 m^3	2%	1.7%

Table 1: Customers Distribution in Tariff Structure

3. Results of an evaluation carried out by external consultants revealed an increase in public awareness about water consumption.
4. WSSD recently hired specialized employees to operate a public awareness division. This new component is responsible for organizing public awareness campaigns that target almost all the community groups and sectors.
5. Decision-makers are conscious of the importance of water conservation issues and provide support to staff carrying out the campaign.

1 | 4.2 2010-2011 Public Awareness Program

1 | 4.2.1 Introduction

In **2010**, WSSD launched a successful national campaign on water scarcity, in collaboration with other water services providers from the Water Union of Service Providers (WUSP). Several activities were conducted; however, the most important and noteworthy success stories from this campaign is the use of theatre as an awareness tool.

1 | 4.2.2 Theatre as a tool to raise children's awareness about water

WUSP promotes exchange and cooperation amongst the Palestinian Water Service Providers group. Using technical working groups is a way of disseminating available knowledge in the sector and to foster discussions about best practices and lessons learnt. During the **2010** campaign on water scarcity, the Water Union's working group on awareness organized, wrote and performed a play for children with the aim of educating on the importance of water for life.

Theatre comes in the forefront of the means of communication used during the campaign. It is seen an influential tool to raise public awareness, as it directly and immediately engages both mind and conscience. Thus, theatre for children is an effective way of developing their creativity, guiding their behavior and making them conscious of the values, ethics and issues related to water. Moreover, theatre exposes children to literature, and offers a fulfilling, entertaining experience supported by visuals and sound effects.

Theatre and literature for children are generally not very popular in Palestine. However, it was because of this fact that WUSP and the technical working group believed that theatre would be an interesting, albeit unusual, tool for raising awareness piquing the audience's curiosity. Watching a play and interacting with actors would be a fun, new experience for children in attendance.

1 | 4.2.3 What made the story of "The Golden Jug" an effective tool?

Walid Hodali, head of WUSP's working group on water awareness, is the author of the play

"The Golden Jug". The story discusses water in Palestine and aims to raise awareness about water conservation. After the play was written, the Ministry of Education and Higher Education (MOEHE) revised it. To ensure the play's effectiveness, it was performed, recorded on a DVD, and diffused widely so that as many schools as possible could benefit from the experience. Furthermore, both MOEHE and WUSP adopted the play as an educational tool. In fact, the latter published it as a booklet to be distributed to **140** health educators in most Palestinian school libraries. The playwright, who is employed by a water service provider, was able to encourage dedicated colleagues to volunteer and act in the play. This made the play a successful awareness-raising activity with a minimal budget and maximum outreach. The activity was supported by GTZ.

Additionally, WUSP's water awareness group organized shows in their respective governorates as part of summer camps.

1 | 4.2.4 Story Content

Abu Ghraib, a foreign magician, persuades the villagers he can convert a pottery water jug into a golden water jug. In return he asks for the land containing the sole water well that supplies the whole village with water. He installs a huge pump on the well; and eventually, due to extensive water use, leaves the villagers without any water. The villagers realize the serious consequences of Abu Gharib's deal, but it is too late. Greed dissolved the villager's sense of unity, allowing Abu Ghraib to control even more territories. Eventually, however, the villagers are reunited, and collaborate to resume control of their land and of their sole water source.

1 | 4.2.5 Results

- **3300** children attended the play
- Children were exposed to theatre in an educational manner
- The story was distributed as a booklet and CD to most school libraries for further use
- Water service providers improved their social responsibility by interacting directly with the community and launching social events that enhanced their image and credibility.

1 | 4.2.6 Lessons learned

1. Using theatre to discuss water-related issues was a successful experience and became a best practice. Watching a play and interacting with actors was a new experience for the children in attendance.
2. Children's attention can be drawn to serious topics through playful methods.
3. Committed people and children involvement enabled the successful organization of a play on a low budget.
4. Theatre is a very effective tool for improving children's understanding and thereby influencing their thinking and behavior
5. Plays need to focus on movements and simplified language and terminology instead of giving long speeches in order to catch children's attention
6. The play should be short to avoid boredom and the dispersal of focus

1 | 5 Overall Conclusions from the Public Awareness Programs

This paper underlines the importance of water conservation in integrated resources management needed to address water shortages problems in Middle Eastern countries. A case study centered on such an approach was undertaken for the city of Nablus in Palestine. WSSD, in collaboration with the WUSP and GTZ, carried out a public awareness (PA) campaign to promote water conservation. The PA campaign targeted children, women, teachers, religious leaders and the general public. Through a wide variety of activities, planning and participating in public awareness campaigns on water conservation, WSSD staff's skills were heightened. The campaigns launched during the **2006-2011** period identified six critical success factors in the successful promotion of water conservation:

1 | 5.1 Cooperatively fund a market – wide- campaign

The economies of scale attained through cooperation points to the assembly of water utilities to accomplish the task. A coherent and simple message that can be directly acted upon

by the public will be more effective than complex messages diffused by independent sources. The idea is to work together to improve the effectiveness of communications program.

1 | 5.2 Developing strong conservation industry partners

By working with conservation-related industry partners (i.e., other water providers, community developers, ministries, associations etc), you will spread the message to your public more effectively by using the combined force of all communications networks.

1 | 5.3 "Why and how" as the focus of messaging

Do not focus on the fact people should conserve water-- They already know that! Instead, focus on WHY it is important to conserve water and HOW to conserve water. Don't make it seem as if people are giving something up: help them appreciate that they are a part of the larger solution.

1 | 5.4 Use a ''carrot & stick" incentive

Water restrictions and rate structures that penalize excessive use have been proven effective. However, incentives that help people conserve voluntarily are considered equally important. Such "carrots" include rebates, credits, and even convenience.

1 | 5.5 Continue to communicate

Continue to dialogue with water conservation professionals from around the country. The sharing environment among the groups is a valuable free resource.

1 | 5.6 Instill an "ETHIC" of Water Conservation

Encourage investment in research to understand residents' underlying values and beliefs. Emphasize programs that put water conservation leadership face to face with its constituent, one on one. Focus messaging on WHY you are asking people to conserve, and HOW customers can participate.

1 | 6 Future Plans and Recommendations

Based on the work outlined in the present document, we offer the following recommendations:

- Continue implementing the PA to move targeted groups from knowledge level to changing their behavior and influencing others (e.g. in the issue of paying water bills).
- Most water conservation activities require a change of behavior and attitude. This is usually a slow process. Therefore, ad hoc public awareness activities are ineffective. Water authorities, in close collaboration with ministries of education and Islamic affairs, should plan continuous and long-term activities.
- Diversify, and be creative regarding the tools used in order to reach more people and make a greater, more lasting impact (e.g., cartoons,films, video clips, theatre etc.)
- Convince decision-makers of the importance of the PA, and encourage them to finally implement relevant and necessary laws/ bylaws/regulation.
- The public awareness campaign should extend to the education system, such as by incorporating relevantmessages into the materials used to teach in schools.

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1 | 8 Public Awareness Program in Photos


لان وقتك
من ذهب
وفر عليك
العناء واللعب
واحصل على خصم إضافي
واحصل على خصم اضافي على فاتورة المياه
٣ + ١٠ ٪
٥ + ١ ٪


بالترشيد
عيشنا رغيد
مصادر
مياهنا
محدودة
gtz


هل تعلم أن :
تعليمات
ونصائح للتوفير
نحن جاهزون


مياهنا حياتنا
شح مصادر المياه
يسبق نواقيس الخطر
١١٥


هل تعلم أن...
لنتأسف على الماء دون نفد
لكن لا نهاية دون ما نفد

2

Public Awareness and Nature Conservation: A Focus on Water Resources Protection and Water Pollution Control

A case study from Yemen

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Abstract

Rainwater harvesting techniques in cisterns is a common form of water conservation in small-scale Yemeni communities. To deal with water scarcity, the Social Fund for Development tapped into local traditional knowledge and experience to support cistern rehabilitation projects and build new public reservoirs which would provide water for rural areas. Compiling all available relevant knowledge was very important given the conditions. Indeed, without proper knowledge about water resources protection, populations (especially children under the age of five) are at a high risk of waterborne diseases resulting from microbiological contamination, a lack of proper sanitation services, as well as high poverty and illiteracy.

To make safe water available, accessible and affordable for local communities in Amran governorate of Yemen, the GIZ-IWRM of the Yemeni-German Water Sector Program improved the production of a Yemeni Pottery in **2007** and began producing a silver-impregnated ceramic filter for household use. These filters are exclusively used to kill bacteria and remove sand and clay from drinking water. A total of two hundred filters were distributed to households throughout **4** villages of Amran. A public awareness component—about safe storage, proper cleaning and follow-up visits- was also necessary in this project to ensure that filter effectiveness remains optimal.

It is important that this project seen as an interactive approach to water resource management, involving all relevant stakeholders. This approach was carried out at different stages of the project cycle. Awareness campaigns were conducted before and after filter distribution, and a study of the health and socio-economic impact of the filters were carried out over a seven-month period. Presentation sessions included information about waterborne diseases, proper hygiene and general sanitation practices, namely relating to filter handling and maintenance. Sessions were supported by trainings, information, as well as opportunities, to practice cleaning the filter.

After six months, the silver filter pilot project revealed that public awareness was a key factor in achieving the objectives defined at the onset. The rate of diarrhea fell significantly from about **64**% to **17**% among children less than five years old. Analyses of filtered water revealed that the rate of contamination fell by about **100**%. Potable water became accessible to all people. Nearly **96**% of households accepted the filter, and approximately **86**% of households were satisfied with the results. Treatment costs also fell from more than **50** USD to less than **25** USD (about **5,000** YR) per month. Through word of mouth, increasing amounts of people became interested in purchasing filters to improve their health conditions.

Experience with the silver filter project has shown that raising awareness is an effective tool for changing the perceptions and promoting positive values. Furthermore, to ensure that the positive impact is sustained, there should be a strategy to follow up after project implementation.

Silver Filters are well-known in local Yemeni communities for their impact on health conditions, and are highly sought after in areas suffering from poor water quality.

2 | 1 Public Awareness of Water Quality Management in Amran Governorate, Yemen

2 | 1.1 Public Awareness of water management

Social norms and attitudes about water management differ from place to place and from national to international levels— whether or not a country is under severe water stress. Sharing experiences about promoting good water management on a multi-sectorial level is often lacking, though it should be taken serious in policy making processes.

Principles of good conduct in natural resources exploitation have been promoted by public campaigns for many years. "Evidence from several campaigns shows that awareness-building can effectively reduce water demand. Awareness and being motivated to change are essential in participatory interventions. Participation is based on the idea that people have the right to be involved in issues concerning them. Awareness raising and education can help stimulate active and informed involvement" (W Schaap and F van Steenbergen, **2002**).

Optimizing policy tools can be helpful for sound water management. The Millennium Development Goals (MDG), declared by the United Nations (UN) in **2000**, became a universal framework for development and a means through which developing countries and their development partners could work together in pursuit of a shared future for all. The objectives on water management that were adopted by Yemen are those stated by the MDGs No. **4** and **7** (as seen in Box-**1**).

Box 1: Millennium Development Goals

No. 4: Reducing child mortality rates
No. 7: Ensuring environmental sustainability

2 | 1.2 Yemen, a country of severe water scarcity

Yemen is located in the southwestern part of the Arab Peninsula, in a semi-arid region with a rainfall pattern ranging between **50** and **1000** mm/year. Access to safe potable water is a major challenge in this country, which is dependent on rainfall water harvesting and groundwater extraction. While seasonal rainfall may contribute to wonderful landscapes and scenery, the absence of water in other parts of the country also create desert areas during the dry seasons.

Rural areas in particular, where over **70**% of the total population is concentrated, are most exposed to low potable water quality and limited access to water resources. In these parts of Yemen, the major challenges to providing potable water are numerous: general water scarcity; complex topography comprised of steep mountains; scattered housings; high poverty and growth rates; and a high illiteracy rate, particularly among women (approximately **70**%).

2 | 1.3 Adapting to water scarcity

In December **2008**, The Update of the National Water Sector Strategy and Investment Programme (NWSSIP Update) stated that its main goal was to provide safe, sustainable, affordable and equitable water along with appropriate sanitation:

> "Three objectives are targeted: (**1**) to increase access for the entire rural population; (**2**) to keep services sustainable and affordable; (**3**) and to ensure that agencies operating in the sub-sector deliver efficient, least cost projects on a demand-driven basis. Main themes and changes of the Update are based on **1**. Participatory approaches are to be institutionalized, including the Demand Responsive Approach, water users committees and societies, and community contracting and **2**. Sanitation and hygiene education will be systematically factored in to projects"
>
> **(MWE-NWSSIP, 2008).**

Small-scale communities based on water harvesting techniques are characteristic of many regions of Yemen still grounded in local resource management traditions. For instance, in areas lacking access to groundwater, a typical water conservation technique used is rainwater harvesting in cisterns. In order to properly address water scarcity in such areas that are dependent on rainwater harvesting, the Social Fund for Development (SFD, Box-**2**) paid attention to the community's participation in and use of traditional knowledge and experience. The Fund supported projects to rehabilitate old cisterns and build new public reservoirs, which would supply water to rural areas. Despite such initiatives, some challenges still remain unsolved. For instance, open water systems such as cisterns are exposed to contamination by human or animal excreta, including carriers of communicable enteric diseases and total and fecal coliforms are a risk factor to waterborne diseases (particularly diarrhea among children under the age of five). Although water reservoirs are accessible, almost no pipes connect them to dwellings. Persons in charge of collecting and transferring water face a high risk of drowning and potentially severe health consequences from carrying heavy loads. Poor awareness about proper hygiene and water quality management among rural populations makes the situation all the more serious in communities with high illiteracy rates.

Box 2

"The Social Fund for Development (SFD) in Yemen was established by Law No. 10 of 1997. It contributes to reducing poverty and improving the living conditions of the poor through increasing access of the poorest communities to basic social and economic services; providing and increasing employment opportunities; building the capacities of local partners; and empowering local communities and local councils to carry out developmental tasks in their areas. The SFD seeks to achieve these goals through four main programs: Community Development, Capacity Building, Small and Micro Enterprises Development and Labor-intensive Works Program, Cash for Work, (SFD, 2010)".

2 | 1.4 National and international aid and voluntary work

Multisectoral investments made possible by national and international aid are allocated yearly and target the most vulnerable groups in order to reduce poverty and improve access to services. While the government and private sector in Yemen are primarily in charge of the country's development, the most important donors for Yemen are: the World Bank, the governments of Germany, the Kingdom of Netherlands, Denmark and Japan, UNICEF, CARE and other entities which directly or indirectly support local communities through the SFD.

Volunteer participation could also contribute to finding solutions and would help further the knowledge, skills and attitudes on the issues at hand, particularly if youth are involved. In nature conservation, there is a high potential and demand for professional and non-professional volunteers. Committing to such initiatives, with a mutually outcome beneficial, provides those involved with a sense of commitment and responsibility towards the community.

2 | 1.4.1 Why does Amran need Water Quality Management?

The governorate of Amran , covering an area of **7680** square kilometers, is located in a primarily mountainous region north west of the Republic of Yemen. It is approximately **1500-3000** meters above sea level and has a moderate to cold climate (**0-15** ˚C in winter, **15-35** ˚C in summer). The distance between Amran city, the governorate capital, and Sana'a city, the capital of the Republic of Yemen, is about **45** kilometers. The governorate has a population of **877.786**, a fertility rate of **6.2** children per woman, and an approximate birth rate of **45** live births per **1000** habitants. The infant mortality rate for children up to **5** years of age is estimated at **101.9** per **1000** live births.

Rainwater is the only available water source in many parts of the governorate. The average annual rainfall is approximately **200** mm and occurs during the two rainy seasons: from March to May, and from July to September. Rainwater is collected in cisterns and consumed by most inhabitants of the governorate for direct drinking purposes. This is done especially in rural areas, where access to safe drinking water is very difficult and water networks are not yet available. However, problems arise for these populations if rainy seasons are delayed or fall out and the cisterns may run dry. During these periods, cisterns are generally managed by adult males. As a result of contaminated water sources, the lack of sanitation services, high poverty and illiteracy, a significant fraction of the population is at high risk of waterborne diseases, especially children under the age of five.

2 | 1.5 Potable water: a basic need

As many studies have shown, increasing awareness among communities living in the aforementioned conditions and providing the proper technology to ensure good water quality can be factors of success for managing water resources.

Water quality management at the village level has shown to be unsuccessful in Yemen on the whole. As a result, ceramic filtration technology (Box-**3**) is therefore considered one of the most promising options for treating drinking water at the household level in developing countries (UNICEF and WSP, **2007**). Both child mortality rates and the proportion of people without constant access to safe drinking water can be reduced.

Box 3

The Colloidal Silver Impregnated Ceramic Filter (SF) was first introduced by Potters for Peace (PFP), a US-based NGO, in several developing countries. The SF came after Hurricane Mitch had devastated Central America in October 1998, causing severe damages to water and waste water systems, particularly in Nicaragua. The filter is locally manufactured and marketed for use in household point-of-use drinking treatment in a self-supporting manner; and its production would stimulate economic activity at low income levels and foster artisan activity. Extensive bacteriological studies have shown that ensuring enough colloidal silver contact time can effectively reduce bacteriological contamination. To ensure that this intrinsic effectiveness is matched in the field, an educational component is necessary. This would include knowledge on safe storage, proper cleaning procedures as well as follow up visits to ensure continued usage and replacement of broken parts. Previous studies concluded that both water quality and human health were improved after using the PFP filter.

2 | 1.6 Facilitating access to potable water in Amran governorate

To make safe water available, accessible and affordable for local communities GTZ-Yemen (Box-**4**) came up with the concept of using the Silver Filter in **2007** in certain areas that depend on rain water harvesting as a source of potable water. To do so, GTZ-Yemen called on an expert from PFP for advice on how to produce the SF locally. A pottery in the suburban areas of Sana'a was identified; and the concept of the SF was introduced to the potters.

Box 4

In 2007 GTZ-IWRM of the Yemeni-German Water Sector Program adapted a Yemeni Pottery to enable the production of high temperature ceramics using a gas-fired kiln. GTZ-IWRM promoted the production and distribution of this filter for use in rural areas, where access to safe drinking water is very difficult and water networks are not yet available. For household use, the silver impregnated ceramic filter is placed in a plastic receptacle with a lid and faucet. All parts of the SF are produced locally, except for the imported colloidal silver used for impregnation. Herewith, filter production has created job opportunities.

A leaflet on the importance of the SF for a better outreach, and an instruction leaflet on proper SF use and maintenance were designed and produced by former GTZ specialists. The design of the latter document was adapted from a similar version used in other countries to better suit local conventions; and then the whole was fixed on the plastic receptacle for direct eye contact during filter use. This leaflet is adapted for illiterate communities as well, containing illustrations of women cleaning the filter parts step by step.

Public Awareness 1

1. Pottery production varies according to its intended use. Regular potteries in Yemen produce utensils that don't require very high temperatures or the addition of specific materials. Beyond their knowledge of clay handling, potters were not knowledgeable about producing a filter with certain specifications. As a result, they have had to be trained on the different stages of the filter production process, the consistency of material used for production (clay, straw, colloidal silver...etc.), the required temperature (about **900**°C) to get the exact pore size, and how to prepare the exact dilution of colloidal silver for impregnation. For a better understanding of the main SF production objective and about the importance of its efficiency, potters were also educated on the role of silver in removing bacteria, and on the importance of pore size.
2. To identify areas of joint responsibility and implementation, considerable effort has been made to

share the SF concept with possible stakeholders. These include: beneficiaries, such as villagers in remote areas that lack access to potable water; the SFD, that is mainly in charge of raising awareness while introducing new technologies; an academic water center, such as the Water and Environment Center (WEC, Box-**5**) to approve SF effectiveness; potters for the filter production; and businessmen who will be responsible for future SF production at the national level. The Water and Sanitation Local Corporation (WSLC) in Sana'a was chosen to manage water sample analyses to show that the SF also removes bacteria. Within the framework of shared responsibilities, a workshop was held for all stakeholders involved. The PFP expert gave detailed explanations on SF importance for removing bacteria, its effectiveness in improving health conditions, its affordability, and about the cleaning and maintenance procedures.

Box 5

The WEC was established in 1999 at Sana'a University, Sana'a, Yemen. The center carries out consultancy studies and provides information, advice and teaching programs to the Yemeni water sector. Overall, WEC has ample experience hosting workshops on Environmental Awareness, Community Water Management, Participatory Planning for Integrated Water Resource Management (IWRM), Political Economy of Water Demand Management, Gender Mainstreaming in IWRM and on many other water-related topics (WEC, 2009).

2 | 1.7 Collaboration agreements

By the end of the stakeholders' workshop, different parties agreed to collaborate and implement a pilot project to introduce the SF to local communities in Amran governorate. The agreements precisely stated the role and responsibilities of each stakeholder, and fixed a seven-month project timeframe in order to study the socio-economic impact of the Silver Impregnated Ceramic Filters and continuing to raise awareness. Financial support for the project was provided by GTZ-IWRM.

2 | 1.8 Goals and objectives of intervention

The project's main goal was to improve the health of local communities by improving drinking water quality in selected villages of Amran governorate. To achieve this goal, the following objectives were set:

1. Reduce diarrhea among inhabitants, particularly among children under five years of age.
2. Make potable water accessible for all.
3. Evaluate the socioeconomic impact of the use, effectiveness and willingness to use ceramic silver impregnated water filters.

As regards the selection of pilot villages in Amran governorate, the following criteria were set:

- The distance between selected villages and the governorate capital should not exceed **50** kilometers for accessibility.
- Topography of the area (plain and mountainous).
- Lack of access to safe water and sanitation facilities (only rain water cisterns constructed by SFD and wastewater disposal systems).

The total number of beneficiary households in selected villages was **200**.

2 | 1.9 Field visits

2 | 1.10 First visit: selection of pilot area and baseline survey

A first visit was conducted to several villages near to Amran city, the capital of the governorate to select the areas that best met the criteria for implementing the project. The visiting team included a representative from the SFD main office in Sana'a, representatives from the SFD-Amran branch (a man and a women) and from local councils in Amran districts, experts from PFP and GTZ-IWRM, and academicians from the WEC. Some discussions with local communities were initiated and touched on a situation analysis of public services with a closer focus on available water resources, and causes of water borne diseases. By the end of the visit, four villages were selected and a baseline data survey was carefully

planned and carried out by both the SFD and WEC.

2 | 1.11 Quantitative evaluation

Setting up clear and measurable indicators is useful to ensure an objective evaluation. An awareness campaign requires improvement to remain effective; so indicators are measured and compared before and after project or intervention implementation. Some of the indicators selected to measure the improvements in villagers' health in Amran governorate are listed below:

- Frequency of diarrheal incidences during the last month (among children and adults)
- Frequency of hand washing before meals and after defecation
- Frequency of filter cleaning
- Frequency of filter refills
- Purpose of using filtered water
- Needs for additional filter
- Amount of water filtered per day
- Selection of filter location
- Beneficiary attitude towards taste, quantity, general acceptance of filtered water
- Estimated costs of diarrhea treatment
- Willingness to buy spare parts in case of total or partial SF breakage
- Willingness to recommend the filter to others

To measure these indicators two types of questionnaires were prepared: one for the baseline data survey prior to SF filter use, and another to study the health and socio economic impact. A team supervised by the WEC conducted field visits to gather this information through face to face interviews with selected households. The team consisted of a man and a woman to facilitate conversations with both housewives and/or men with conservative traditions.

2 | 1.12 The project area: background information

Al-Zafen, Al-Mamar, Beit Al-Saidi and Muqana'a, small villages located in the south of Amran governorate, are connected to the governorate capital Amran by way of bumpy unpaved roads (except for Al-Zafen). Their population ranges approximately from **200** to **400** inhabitants (CSO, Amran, **2004**). Villagers' main income comes from agriculture and livestock breeding (cattle, sheep, etc.); and these activities are negatively influenced by water scarcity and dependence on two annual rain seasons. In Beit al-Saidi, some villagers produce ceramic pots and utensils as an additional revenue stream. Basic education (up to class-**9**) is available for boys and girls, though total enrolment is much lower with girls, who have a greater amount of responsibilities at home. Secondary education is only available in Al-Zafen; which is also the only village with electricity. Furthermore, there are no health establishments in the **4** villages: sick people are either treated or not based on available accumulated traditional knowledge. In severe cases patients are transported and treated primarily in Amran city, though transportation expenses may reach up to **5000** YR (about **25** USD).

Rainwater is collected in cisterns built by the SFD. Their volume capacities range from **2000** to **8000** m^3, and are located at least **500** m from the center of villages. Water is collected in **20**-liter plastic containers almost exclusively by women and young girls who carry the containers on top of their head.

The baseline data report on "Evaluating the Health and Socioeconomic Impacts of Colloidal Silver Impregnated Ceramic Filters in **4** Villages in Amran Governorate (B Zabara and Kh Al-Moyed, **2008**)" states that approximately **71.7**% of all **180** households selected for this study collect water more than three times daily. The total mean of the estimated quantity of collected water per household is **174** L/day, and the highest mean per household of **203** L/day was observed in Muqana'a village. **13.3**% of households use a piece of cloth to clear and purify water, while **77.3**% do

not take any measures for obtaining clear potable water. This is evidence that inhabitants are either unaware of the possibility of water source contamination, or that they are aware of it and don't care— which is even worse.

Most houses (approximately **68**%) lack latrines and proper wastewater disposal facilities. Almost all households under study have an open sewage system around their residency, a potential risk factor for water-borne diseases. Personal hygiene, such as hand washing after defecation and before food handling, is almost inexistent. In few cases, hand washing is done in a communal container.

Water-borne diseases such as typhoid fever, dysentery, diarrhea (about **64**% of households), schistosomiasis and urinary tract infections, are common, particularly among children under the age of five. The highest incidence of diarrhea was observed in Muqana'a village at **42.8**%. The approximate mean of estimated expenses for treating diarrhea was **10,000** YR. Two health education campaigns were introduced to the inhabitants of Al-Zafen village in **2006**. Generally, no awareness of personal hygiene was observed in all villages.

Twenty water samples (ranging between **100-200** ml), collected from the main village water sources (cisterns) and from randomly selected households, were transported in an ice box for testing at the Sana'a Water and Sanitation Local Corporation(SWSLC) laboratory. Water was primarily tested for the presence of fecal indicators and most common chemical parameters. The series of tests to verify the pH and EC values. Finally, a chemical test was conducted to check for the most common chemical parameters. The series of tests revealed that water sources (cisterns) were heavily contaminated with fecal coliforms (E coli) and were therefore not suitable for human consumption, according to the recommended WHO-guidelines for drinking water quality.

Public Awareness 2

A number of water and environment key issues were raised during the first SFD visit to remote areas, through meetings with focus groups, persons of influence (village Sheikhs), members of selected water beneficiary committees, school children and teachers. Meetings were held in the school during morning hours, and in villagers' houses (men and women separately) in the afternoons. Topics discussed included an introduction to the SFD awareness-raising team, project objectives, the problem at hand, an introduction to the SF (importance and use), how to keep water and water containers clean, water borne diseases, and personal hygiene and sanitation practices. Questions and feedback from the audience was allowed for clarification. In schools, the blackboard was mainly used as a tool to present the topics; and at homes, open discussions followed each awareness presentation.

2 | 1.13 Selecting households and distributing filters

Criteria for selecting households who would receive the initial **200** filters were established, based on the notion that beneficiaries should be the poorest inhabitants. Thus, the villagers of Al-Mamar, Beit Al-Saidi and Muqana'a were selected; and the remaining filters were distributed to the most vulnerable of inhabitants of Al-Zafen. Lists of proposed recipients of the filter were prepared for distribution purposes. The date (one day per village) and place for filter distribution and awareness campaign (school) was fixed for each village. In the training, the objective was to transfer practical knowledge about cleaning and maintaining the filter, and also to raise awareness about water contamination, health and proper water treatment. Awareness material and tools were carefully prepared by the awareness team to insure a proper and effective transfer of knowledge.

At the specified date and time for each village, selected representatives of households met with the awareness team at the school. Each representative was given a filter and a sealed card with a filter number. The recipient signed or put his/her finger print (for illiterate villagers) in front of his/her name on the list of recipients. This list was then signed by the head of the beneficiary committee, the SFD consultant and and finally approved by.

Villagers also had to sign a written commitment to maintaining the filter and to informing the SFD about the breakage of any part of the filter, against a payment of **800** YR (approximately **4** USD) (I Abutaleb and A Al-Guhali, **2008**).

Public Awareness 3

A training session on the proper use and maintenance of the SF was conducted before filters were distributed to beneficiary households. An SFD team member presented the filter on a table in front of the school building, and described the different parts of the filter to the audience (the beneficiaries). He/she then showed how to properly clean each part of the device. It is also worth noting that a hard brush was distributed along with the filter to clean the ceramic pottery bucket by opening clogged pores and enhancing filtration efficiency. On the other hand, the plastic receptacle, the covering lid and the tab should be cleaned with a small quantity of the filtered water, to prevent water contamination during future use.

2 | 1.14 A training manual for the silver filter awareness program

The SFD prepared a training manual to introduce the SF to local communities.

2 | 1.14.1 Description of manual

Introduction: This section contains an introduction to public health and how water treatment technologies may reduce bacterial infections.

Objectives: To prevent the spread of water borne diseases and to raise the quality of life.

Achievement of objectives: Through points listed below.

- Conservation of water resources
- Applying good health and sanitary practices to prevent water contamination
- Proper storage of water in households.
- Water treatment before drinking (filtration).
- Proper filter use, in terms of handling and cleaning.

Water contamination:

- Water resources are neglected and misused
- Water is collected and stored in unclean containers

Health problems:

- Deterioration of public health due to the prevalence of water borne diseases, such as diarrhea, cholera, typhoid, bilharzias and malaria.
- Deterioration of social life
- High cost of treatment
- Girls spending many hours collecting water rather than in school
- Decrease in income when the head of the household is sick.

Treating water prior to use: for removing dispensed material and killing bacteria.

2 | 1.14.2 Leaflet description

In each of the following procedures, hands should be washed carefully while the filter is being handled.

1. How to use the filter: an illustration of the filter is shown on the leaflet. It also shows the different parts of the filter.
    - **Step 1:** describes how the plastic receptacle should be cleaned.
    - **Step 2:** describes how to locate the

receptacle and how to insert the ceramic bucket.
- **Step 3:** describes how to get rid of the ceramic taste.
- **Step 4:** describes what to do if water from the source is turbid.
- **Step 5:** describes how to get a better water yield.

2. How to clean the pottery
3. How to keep water and water containers clean

Public Awareness 4

As awareness campaigns aim to influence behavior— more specifically, influencing the adoption of a certain behavior— it is very important to regularly conduct campaigns that will monitor changes. In the six months that followed the filter distribution, two awareness campaigns were conducted in all villages to verify improvements in public health linked to proper SF handling. Beneficiaries were asked to demonstrate how they clean the SFs, and were advised on how to improve their cleaning methods. During each field visit, filtered water samples were randomly taken from households. When contaminated water was discovered, households were informed and reinstructed on better water handling practices.

2 | 1.15 Impact assessment

An impact study was carried out by a master student (Bashir Al-Nasiri) and supervised by the academic staff of WEC, respectively [1)] to evaluate the SF water filter' success from a public health standpoint, and [2)] to investigate the socioeconomic impact of its use, effectiveness as well as households acceptance of the filter in selected rural areas. The Impact was measured through a follow-up on proper monitoring, cleaning and maintenance of filter over a period of **6** months. Impacts were studied after **1**, **3** and **6** months of filter distribution.

Evidence of the effectiveness and acceptance of the filter can be summarized as follows:

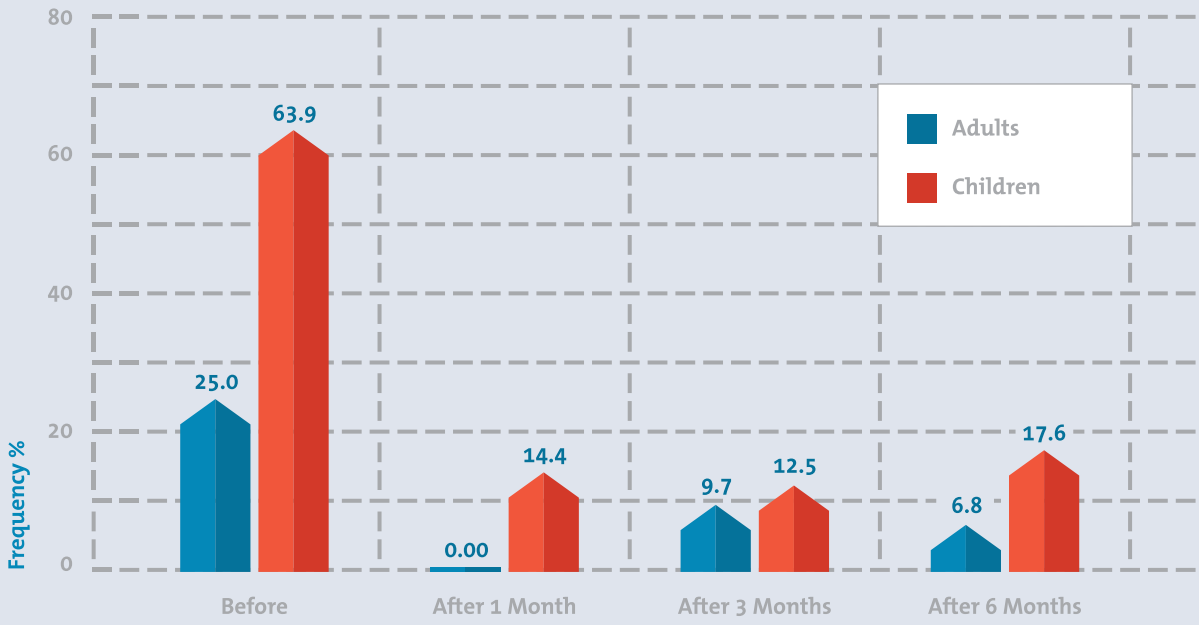

Figure 1: Frequency of diarrheal episodes before and after filter introduction

- Filters were placed at higher positions and out of the reach of small children to prevent breakage. However, in some cases they were also stored in places such as latrines. These were not used for its original purpose.
- Households under study generally exhibited a very favorable acceptance of the filter (over **96**%) after a month of filter distribution and remained high throughout the project period.
- Improvements in health increased rapidly from **15**% prior to filter distribution to **63**% after **6** months of filter use.
- During the study, satisfaction in households with a sufficient quantity of filtered water for drinking purposes increased rapidly, from **2.2**% after **1** month to **80.1**% and **86.9**% after **3** and **6** months respectively.
- Filter efficiency was as high as **70**% after one month and decreased to **54**% after six months as stated by respondents.
- The filtration rate was medium to fast during the first **6** months, indicating proper use of the brush to clean the ceramic pot.
- Both men and women (including children) were drinking filtered water in **95**% of households.
- The percentage of children suffering from diarrhea decreased sharply, from **63.9**% before filter introduction to **14.4**%, **12.5**% and **17.6**% after **1**, **3** and **6** months of filter introduction respectively.
- The estimated cost of diarrheal treatment decreased significantly after filter introduction. No more than **5000** Yemeni Rials per household were spent on treatment after **6** months.
- Beneficiary attitudes towards recommending the SF to others increased from **25**% to approximately **73**%.
- The willingness to share filtered water with non-household members increased to **29**% only. This may be because of the heavy water load women have to carry daily.
- Water sample analysis showed some contamination of filtered water after one month of filter use, which may not be the result of improper use. However, after **3** and **6** months no more contamination with fecal or total coliforms was observed. This indicates the effectiveness of health education campaigns.

Public Awareness 5

Media attention and the participation of prominent politicians can play important roles in outreach and public awareness. For this reason, the team invited the Ministry of Water and Environment (MWE) to organize a workshop and present major achievements of the project to date. As the event was intended to be interactive, all stakeholders were invited to be speakers. These included the local community (men and women), the SFD, a PFP expert, the Minister of MWE, the WEC, and the Sana'a Water and Sanitation Local Corporation. CARE Yemen was also invited, to speak about its experience with introducing the SF in another governorate of Yemen. Invitees included general managers from the MWE, the governor of Amran, the rector of Sana'a University, and other relevant personalities. Another aim of the workshop was to encourage the water sector to learn from and apply the knowledge presented in all areas of water shortage and deterioration in water quality.

During the workshop, each stakeholder shared his/her experience in the project, the challenges faced and opportunities for improving the quality of life in local communities. One of the most memorable moments was when the representatives of local communities started speaking about the project, saying that it improved the health of their children in particular and how they were willing to use and maintain the filter in the future. Both the event and interviews with stakeholders were broadcasted on TV and radio.

A weekly TV program on Yemen TV focuses on topics relating to water and the environment. As the filter project was very relevant to this program, interviews with water professionals working on the project (namely the GTZ-IWRM team leader and WEC academicians) were featured as a way of promoting the notion of improved health conditions by improving drinking water quality. To enhance the marketing effort, various visual materials were integrated into the montage to illustrate different aspects of the project (such filter distribution, awareness campaigns, workshop).

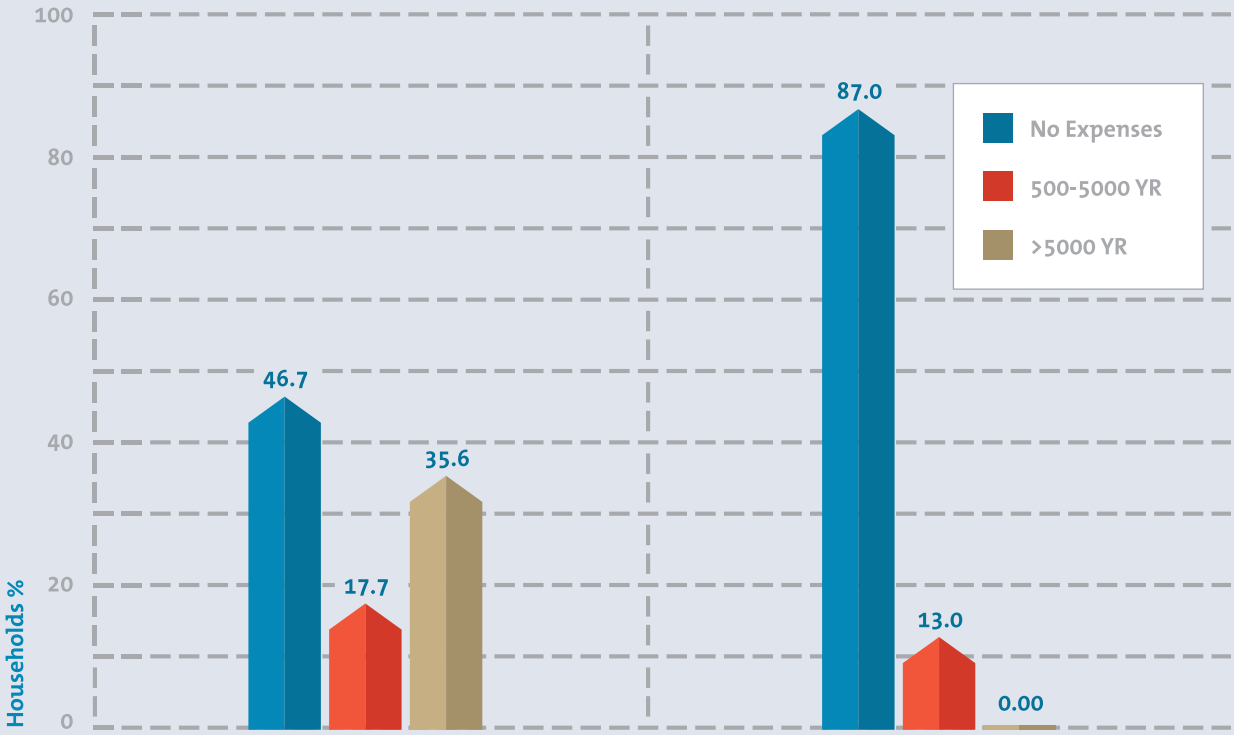

Figure 2: Estimated cost (In YR) per household of diarrheal treatment before and after filter introduction

Apart from radio and television coverage, the GTZ-IWRM team leader issued a press release to underline the project's importance for vulnerable communities in Yemen. The press release also stated the role of donor agencies in implementing water projects in Yemen and underlined the importance of the silver filter pilot project in particular.

An e-news magazine (Silver Bulletin) published a one-page report that chronicled the project's overall success, and also stressed the efforts and challenges needed to ensure its sustainability.

2 | 1.16 Public awareness versus sustainability

Undoubtedly, raising awareness and introducing new water technologies and/or systems are important factors for success. In parts of Yemen where Silver Filters were distributed without a proper presentation of their importance, use and maintenance, the project failed to improve health issues (such as reducing diarrhea).

Three years after they were distributed to villagers in Amran governorate, Silver Filters are still being used. Some have broken since, but spare parts were bought to repair them. A shop for spare parts was opened in Amran city during project implementation to facilitate access to repairs. The main SF distribution point is located in Sana'a, the capital of Yemen. It is worth noting that because people living in urban areas don't

necessarily have access to clean potable water, they are also keen to buy a filter for household use. This is particularly true of households that obtain their water from contaminated private wells.

SF filters have become a Point of Use solution in many areas of Yemen since the pilot project was first implemented. A strong example of this is that filters were distributed during the big flood in Hadramout in October **2008** to prevent the spread of diseases such as cholera; and were also given later on to refugees that from internal armed conflicts fallouts. SF usage becomes yields increasingly promising results in areas of water quality deterioration.

Box 5: Did Amran achieve the Millennium Development Goals?

All of Amran was not covered by the project: therefore only villages under study experienced a significant improvement in health. From my point of view, the MDGs 4 and 7 have been reached to an acceptable extent. However, education remains a priority concern policy makers should focus on, as it will drive changes in behavior and attitudes in the face of challenging issues.

2 | 1.17 Summary

The silver filter pilot project has shown that Public Awareness was a key factor in achieving the project founding objectives after six months of filter usage. Diarrhea incidence reduced significantly from about **64**% to **17**% among children under the age of five. Potable water was no longer a murky matter: analysis of filtered water showed that contamination was reduced by **100**%. Potable water was made accessible to all beneficiaries. Receptiveness to the filter was exhibited in **96**% of households with a sufficiency level of approximately **86**%. Treatment costs fell from more than **50** USD to less than **25** USD (about **5,000** YR) per month. Considering these results, it is evident that raising awareness should be seen as a tool to change the perceptions of people towards positive values.

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3

Applying Social Marketing Principles & Techniques

In Public Outreach Campaigns for Behavior Change

A Case Study: Miyahuna, Jordan

Jumana Ayed,

Miyahuna, Amman - Jordan

Abstract

Social marketing uses a number of strategies to create, communicate and deliver value in order to influence target audience behavior. The process consists of **10** steps, which are clearly outlined in a plan that focuses on people's ability to make positive changes. Social marketing strategies are more effective than awareness alone, because they aim at changing people's behaviors- while awareness is a first step of knowing the best values but not necessarily a practical way of producing change. In this vein, Miyahuna applied a social marketing strategy to design and implement a campaign directed to Amman, which "promotes the installation of household ground-level water tanks."

The following social marketing steps were followed during the planning process of the campaign:

- Background, Purpose & Focus
- Analyzing the Situation
- Selecting Target Markets
- Setting Objectives and Goals
- Identifying the Competition, Obstacles & Motivators
- Positioning
- Developing a Strategic Marketing Mix (Product/Price/Place/Promotion)
- Monitoring and Evaluation
- Budget and Funding Sources
- Completing the Implementation Plan

Why is Social Marketing a Best Practice?

1. Social marketing is an effective tool for behavior change campaigns
2. Conducting research is an essential part of the social marketing process, as it provides crucial information about customers
3. Social marketing methodology involves both the Communications and Technical directorates, which made outreach and public awareness-raising more effective in achieving Miyahuna's overall strategic goals
4. Using research with social marketing approach produced noticeable results that were also noted by the media and the press.

Social marketing is a process that applies marketing principles and techniques to create, communicate and deliver value in order to influence target audience behaviors for the benefit of both the target audience and the society as a whole. In this process, commercial marketing methods, a systematic planning process and marketing strategies are combined to achieve specific behavioral changes.

> "Social Marketing is a process to create, communicate and deliver value in order to influence target audience behavior, using marketing principles and techniques"

Much like commercial marketers sell goods, social marketers sell behaviors. They influence target audiences to either accept a new behavior, or reject or modify an undesirable one.

As in commercial marketing, the target audience has diverse needs and wants: what appeals to one individual may not appeal to another. For this reason, a target group is divided into segments, so that efforts and resources can be concentrated and directed towards the "the low hanging fruit"—i.e., the segment that is most likely to adopt the behavior.

The primary beneficiary in commercial marketing is the product producer. Because the marketing process revolves primarily around selling goods and services for financial gain, commercial marketers will favor primary target segments that will yield the greatest volume of profitable sales. Competitors are often identified as other organizations offering similar goods and services. While social marketing is used to sell a desired behavior, the primary beneficiary of the program is the society and the primary objective is social gain. Social marketing segments are selected based on different sets of criteria, (such as degree of prevalence of the social problem and readiness for change) and the competition is most often the current or preferred behavior of the target group.

There are many similarities between social and commercial marketing. In both cases, marketing research is used during the process, the audience is segmented, and marketing strategies are tailored to meet the needs of the segmented audience. Additionally, results are measured at the end of the process in order to evaluate success.

3 | 1 Social Marketing Planning:

Social marketing is a systematic process. When developing a social marketing plan, it is recommended to follow the **10** steps that focus on people's behavior to make change for the better. Such a strategy is more effective than awareness alone: social marketing targets changing people's behaviors, while awareness is a first step towards knowing the best values but not necessarily a step towards making any practical change.

The plan is structured as follows: researching the background, determining purpose and focus; analyzing the situation; identifying target markets; establishing marketing objectives and goals; understanding the target audience's position; conceiving the desired positioning statement; designing the strategic mix (the "**4**Ps"); and developing evaluation, budget and implementation plans. Each of these steps will be described in the following sections.

3 | 1.1 Background, purpose and focus:

This step begins with identifying which social issue the plan will address (e.g. domestic water supply – as illustrated in the case study below). Background research answers questions such as "What is the problem, what happened?" and also provides other data related to the problem.

A statement of purpose is then developed to outline the benefits of a successful campaign, and then an angle is selected to narrow the scope of the plan (e.g. in our case the purpose is to " improve water supply", whereas the focus is the "installation of ground-level water tanks").

3 | 1.2 Analyzing the Situation:

Relative to the purpose and focus of the plan, a quick audit of factors and forces in the internal and external environments is conducted. The object is to determine the Strengths, Weaknesses, Opportunities and Threats (SWOT Analysis), but also to analyze the internal and external forces that affect the plan.

3 | 1.3 Selecting Target markets:

Target markets are selected according to findings from step **2** above – e.g. readiness for accepting change, demographics and geographic data. A marketing plan usually focuses on a primary target group, although secondary target group is often identified as well.

3 | 1.4 Setting Objectives & Goals:

A social marketing plan always include three types of objectives:

- **Behavior objective:** What we want to influence the target market to do. It may be something we want our target audience to accept, reject, modify or abandon.
- **Knowledge objective:** It includes the information and facts we want our target market to be aware of and that will make them more willing to adopt the desired behavior.
- **Belief objective:** Relates more to feelings and attitudes

These three types of objectives should be Specific, Measurable, Attainable, Relevant and Time sensitive (SMART).

It is important to know that what is determined in this step will guide decisions on marketing mix strategies, and will have implications on the budget.

3 | 1.5 Identifying the Competition, Obstacles & Motivators:

Understanding what your target audience is currently doing, the obstacles that prevent them from adopting the desired behavior, and what motivates them, is crucial to developing a successful campaign.

At this point, we know whom we want to influence, and what we want them to do. It is necessary here to use the necessary time, effort and resources to understand what our target market is currently doing or prefers to do (i.e. the competitive behavior), what real or perceived obstacles they face in adopting this desired behavior, and what motivates them to adopt the new behavior.

In other words, what do they think of the idea? What are some of the reasons why they are not currently doing this or don't want to? The answers to these questions should be used as a reference for subsequent steps.

3 | 1.6 Positioning:

This step determines how you want your target audience to see the desired behavior you want them to buy, compared to the competing behavior. In our case study, the positioning statement is the following:

> "We want Amman customers to see that our water supply system has changed Amman. We want them to believe that installing ground-level water tanks will solve their water supply issues, and that it is a cheaper and safer option than buying water from private sector tanks."

3 | 1.7 Developing a Strategic Marketing Mix:

This part of the plan outlines the product, price, place and promotion strategies that will be adopted by the campaign plan. The combination of these elements constitutes the marketing mix used to influence behaviors.

- **Product:** The actual product is the desired behavior. The augmented product refers to any additional tangible objects or services that could be included in the offer presented to the target audience.
- **Price:** Refers to any program related to:
  - Monetary costs (fees): what the target audience will pay.
  - Monetary incentives: which will be offered (such as discount coupons or free tank installation services)
  - Nonmonetary incentives: such as public recognition
  - Nonmonetary disincentives: such as negative public visibility.
- **Place:** In social marketing, "place" refers to where and when the target market will perform the desired behavior, acquire any campaign-related tangible objects or

receive any services associated with the campaign.
- **Promotion:** In this step, the key messages, messengers, and communication channels that will form the integrated promotional plan are determined.

3 | 1.8 Monitoring & Evaluation:

Deciding which measures will be used to evaluate successes, and how and when such measurements will be taken. Measures usually fall into one of three categories:
- **Output:** measuring campaign activities
- **Outcome:** measuring target market responses and changes in knowledge, behavior and beliefs
- **Impact:** measuring contributions to the plan objective (i.e. improving water supply)

3 | 1.9 Budget & Funding Sources:

In this step, the necessary budget and funding sources to implement the plan are identified.

3 | 1.10 Completing the Implementation Plan:

A complete plan should specify the activities, time plan, responsibilities, strategies and all other details necessary for implementation. This document outlines who will do what, when, and for how long. It provides a clear picture of marketing activities, responsibilities, time frames and budget.

Case Study – Miyahuna

3 | 2 Enhance Installation of household ground-level water tanks by Amman citizens

3 | 2.1 Background, Purpose & Focus

Jordan has one of the lowest levels of water resources per capita in the world. As a result, the Miyahuna – Jordan Water Company, which is responsible for providing water and wastewater services in the capital Amman, is faced with the challenge of satisfying growing water demand resulting from high population growth, significant economic growth, and the expansion of major investments especially in the high rising buildings and housing sector. The company succeeded in maintaining a per capita level of **148.8** liters per day (**2011**) in Amman Governorate.

After completing the rehabilitation of Amman's water network, Miyahuna shifted from direct to gravity supply methods by pumping water from tower reservoirs. These are located in each of the **44** zones, subdivided into **335** isolated districts in which bulk water meters are installed to provide an accurate measurement of the quantity of water supplied to each district. Pressure-reducing valves are also installed to maintain pressure in the network within a range of **2 – 7** bars: this is expected to reduce water leakages, pipe breaks, as well as non-revenue water in Amman (**32.4**% in **2011**).

A survey designed by the Communications Department was conducted with the assistance of the Control and Call Center Staff to identify the problem scope, locations, degree of knowledge and awareness, readiness for adopting the desired behavior, target audience and other related information. A questionnaire was designed to get information from people who complained of a lack of water supply and did not have a ground-level water tank at their home.

3 | 2.2 Analyzing the Situation

Research analysis showed that **30**% of total water shortage complaints (**544** complaints) received by the Control & Complaint Call Center (CCCC) at Miyahuna headquarters over the course of one week were issued by subscribers who didn't have ground-level water tanks & pumps. This is currently a widely recognized problem in fact: a lower pumping pressure means that water pumped through the pipelines is unable of reaching ordinary roof tanks which all subscribers have.

82% of the aforementioned complaints were issued by subscribers living in specific areas of Amman, namely Dahiet Haj Hasan, Jabal zuhour, Abu Alanda, Jabal Akhdar, Tabarbour, Sweileh,

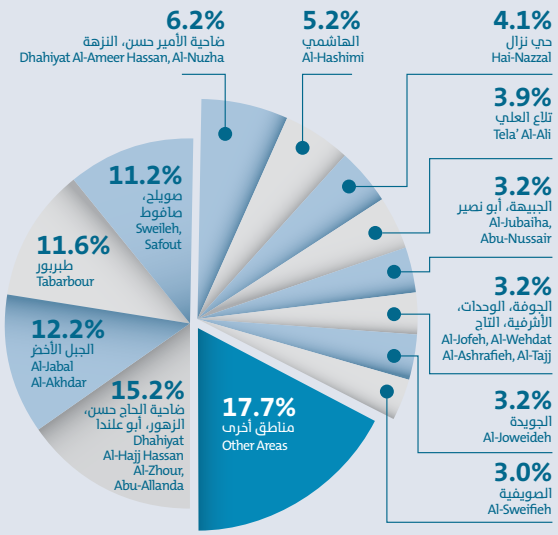

Figure 1: Percentage per geographic location

Dahiet Amir Hasan, Nuzha, Al-Hashemi, Hai Nazzal, Tlaa Ali, Jubeiha & Abu Nseir, Jofeh, wehdat, Ashrafieh & Taj, Juweideh and Sweifieh (as shown in Figure **1** above).

Only **16**% of the subscribers lacking ground-level water tanks with pumps, knew that water shortage problems in their houses were due to unavailability of ground-level tanks; **39**% believed that ground-level water tanks with pumps were not needed; and the remaining **45**% of the sample didn't know whether installing ground-level tanks was needed to solve water supply shortages in their houses (as shown in Figure **2** below).

This information was crucial to understanding people's perceptions of the problem. Research findings were used during the planning process of the campaign to select target markets, set goals and objectives, identify barriers and motivators and to set the marketing strategy. The knowledge objective was used to provide information and facts about the new water supply system adopted in Amman and how it affected water supply to households.

Research also showed that **85**% of subscribers were not willing to install ground-level tanks with pumps (as shown in Figure-**3**) for different reasons. As shown in Figure **4**, subscribers' excuses varied. **35**% of them could not install the tanks due to a lack of space; **31**% had no justification; **18**% cited financial reasons; **10**% had no permission from the owner; and **5**% believed that it was Miyahuna's responsibility to supply water up to the roof tanks.

The greatest strength of the campaign was the strong management support provided specifically by the Operation Directorate. Its aim was to reduce the number of water shortage complaints received by the CCCC, improve water supply conditions— items which reflect on the Company's image as a professional water service provider.

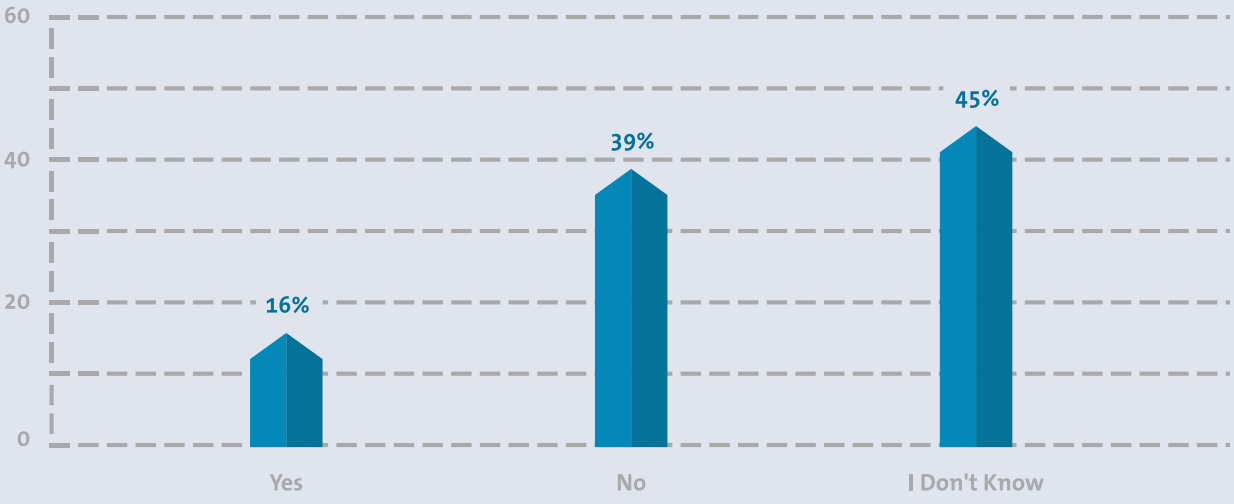

Figure 2: Do you think that water problems are due to the lack of a ground-level water tank and pump?

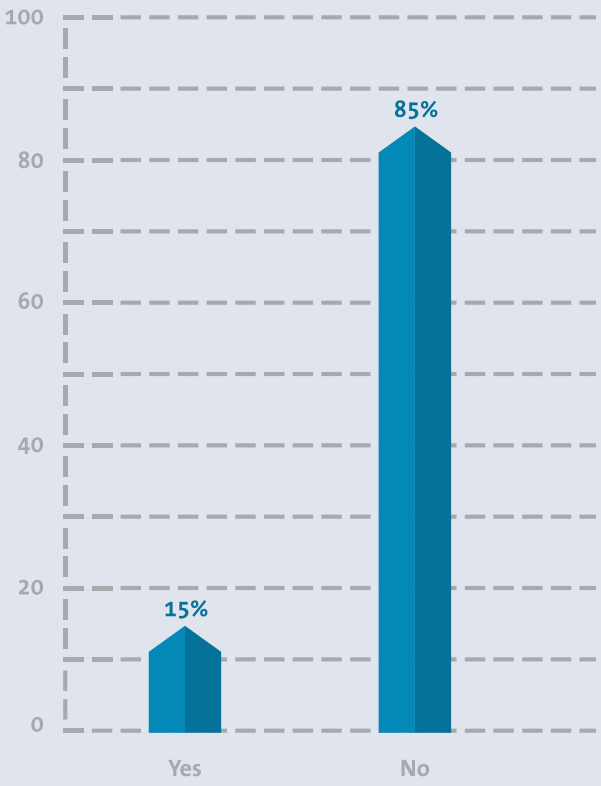

Figure 3: Are you willing to install a ground water tank with pump?

Weaknesses include limited financial resources and unstable supply conditions resulting from prevailing hot weather conditions and electricity cut offs.

Opportunities to take advantage of included subscribers not being aware of the necessity to install ground-level tanks and how they might solve their suffering from lack of water; while issues to anticipate include a lack of space in 35% of residential areas, in addition to the difficult economical situation which gives a lower priority to the issue of ground-level water tanks when compared to other family priorities.

3 | 2.3 Target Markets

3 | 2.3.1 Primary Target Audience

- Customers suffering from a lack of water supply
- Customers who don't have ground-level water tanks with pumps, but have the space to install them

3 | 2.3.2 Secondary Target Audience

- Miyahuna's new customers.

3 | 2.4 Marketing Objective and Goals

Campaign strategies will be developed to support the following objectives:

1. To create awareness among Amman citizens about water supply operations, after shifting to gravity supply instead of direct pumping from the network, in order to reduce non-revenue water lost due to pipe leaks, and also to reduce pipe breaks.
2. To convince the target audience to install ground-level water tanks with pumps, and make them believe that this is the solution to end their suffering from the lack of water supply to their homes.
    a. **Behavior Objective:** We want our target market to install ground- level water tanks at their homes

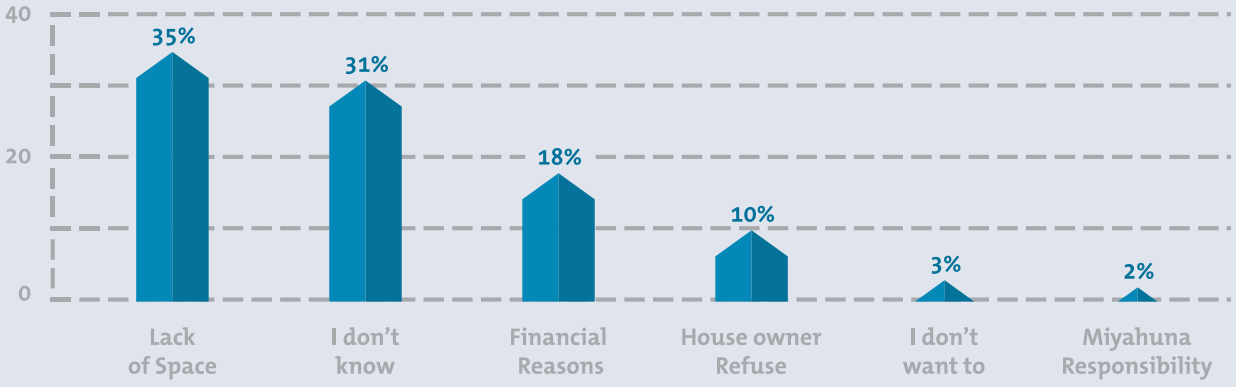

Figure 4: Why do you refuse installing ground water tank with pump?

b. **Knowledge Objective:** We want our target market to know that the water distribution system in Amman has changed with the objective of reducing non- revenue water and also to eliminate water pipe breaks
c. **Belief Objective:** We want our target market to believe that it has a great role in assisting the water company to reduce non-revenue water; for it to understand that the responsibility of water utilities is to provide water to the water meter, and the customer's responsibility starts from that point forward.

3 | 2.5 Competition, Barriers & Motivators

84% of the focus groups reported not knowing that a lack of ground-level tanks and pumps was the reason behind their suffering from water shortage, indicating that a lack of awareness is a barrier (as shown in Figure 3). **85**% of the sample who were not willing to install them gave reasons such as:

- "It's too costly"
- "Why should I bear additional costs, when it is Miyahuna's responsibility to pump water to the roof tank?"
- "I live in a rented house, and cannot obtain the owner's permission to install a ground tank"
- "I live in a crowded area, and there is no space to install a tank in the building".

3 | 2.6 Positioning

We want our customers who have water shortage problems to believe that installing a ground-level water tank with pump is the solution. The positioning statement describes how we want our target audience to see the behavior we want them to buy, relative to the competing behavior.

The positioning statement is: "We want Amman customers to see that our water supply system has changed Amman. We want them to believe that installing ground level water tanks will solve their issues of inadequate water supply, and that it is a cheaper and safer option than buying water from private sector tanks. "

3 | 2.7 Developing a Strategic Marketing Mix

3 | 2.7.1 Product

The product is the desired behavior: i.e., installing a ground- level water tank. Better water provision is considered to be the augmented product.

3 | 2.7.2 Price

The purchase cost of the tank and pump is the monetary cost; while the free installation services offered by Miyahuna is the monetary incentive.

Miyahuna provided assistance tp customers who bought the tank and pump during the campaign's implementation period (one month) by providing free installation services estimated at about **50** JD.

3 | 2.7.3 Place

The place is where and when the target market will perform the desired behavior, acquire any campaign-related tangible objects, or receive any services associated with the campaign. In this campaign, "place" referred to citizens' homes, as well as the Miyahuna Control Call Center where customers had to call and apply to request for the free installation services.

3 | 2.7.4 Promotion

The campaign was advertised through several communications channels, including newspapers, ads at landmarks in identified locations, websites, brochures, telephone calls, face-to-face communications, customer newsletters, and posters. As shown in the diagram below, different communication channels were used to communicate with different sections of the segmented audience.

A joint effort was made by the Communications Department and Operations and Customer Service Directorates in designing, preparing and implementing the marketing mix. In order to determine the place, price, product and promotional strategy, a number of elements were taken into consideration: facts and information about the newly adopted water supply system, survey findings, customer needs, motivators, barriers, locations where the problem is most frequent, market prices and campaign budget.

The Operations Directorate provided teams of plumbers to provide free tank installation services to customers' homes during the month-long campaign period. Customers' requests for services were received by the Control and Complaint Call Center (CCCC) **24/7**; and the free installation service was provided within **24** hours following the time of request.

(CCCC) staff were in involved in the campaign from its beginning. They interviewed people who called to complain about not receiving water, and filled questionnaires during the survey stage. They also provided callers with information about the new water supply system, the campaign and the free installation service provided by Miyahuna; received requests from customers applying for the free service; and supervised implementation procedures at Miyahuna maintenance offices.

The campaign also focused on the areas in which water supply problems were most frequent. Face-to-face communication was handled by the Customer service Directorate's field staff (meter readers and collectors). Members of the field staff who were familiar with the areas of concern talked to people about the campaign and the free ground-level water tank installation services offered by Miyahuna during the campaign period. They also distributed **1200** brochures and hanged **500** posters in popular places such as supermarkets, bakeries and hair salons.

Colored ads were designed and published in the major daily newspapers, along with weekly newspaper ads and periodical customer newsletters to catch the attention of Amman's citizens. An Open Day was also organized at the Miyahuna's Customer Service main office to promote the campaign and provide the public with information about the new water supply system and the free installation services offered by Miyahuna during the campaign.

The Communications Department called **544** customers – people who had called the CCCC to complain about the lack of water supply and who were interviewed during the survey — to ensure that they were well informed about the campaign. It was discovered that **143** of these **544** customers had performed their own installations after learning about the need for water tanks by CCCC staff during the survey stage. This shows how important clear communication is important to delivering clear messages to customers.

The company provided brochures and information to the secondary target audience (new subscribers) at the office where requests for new water

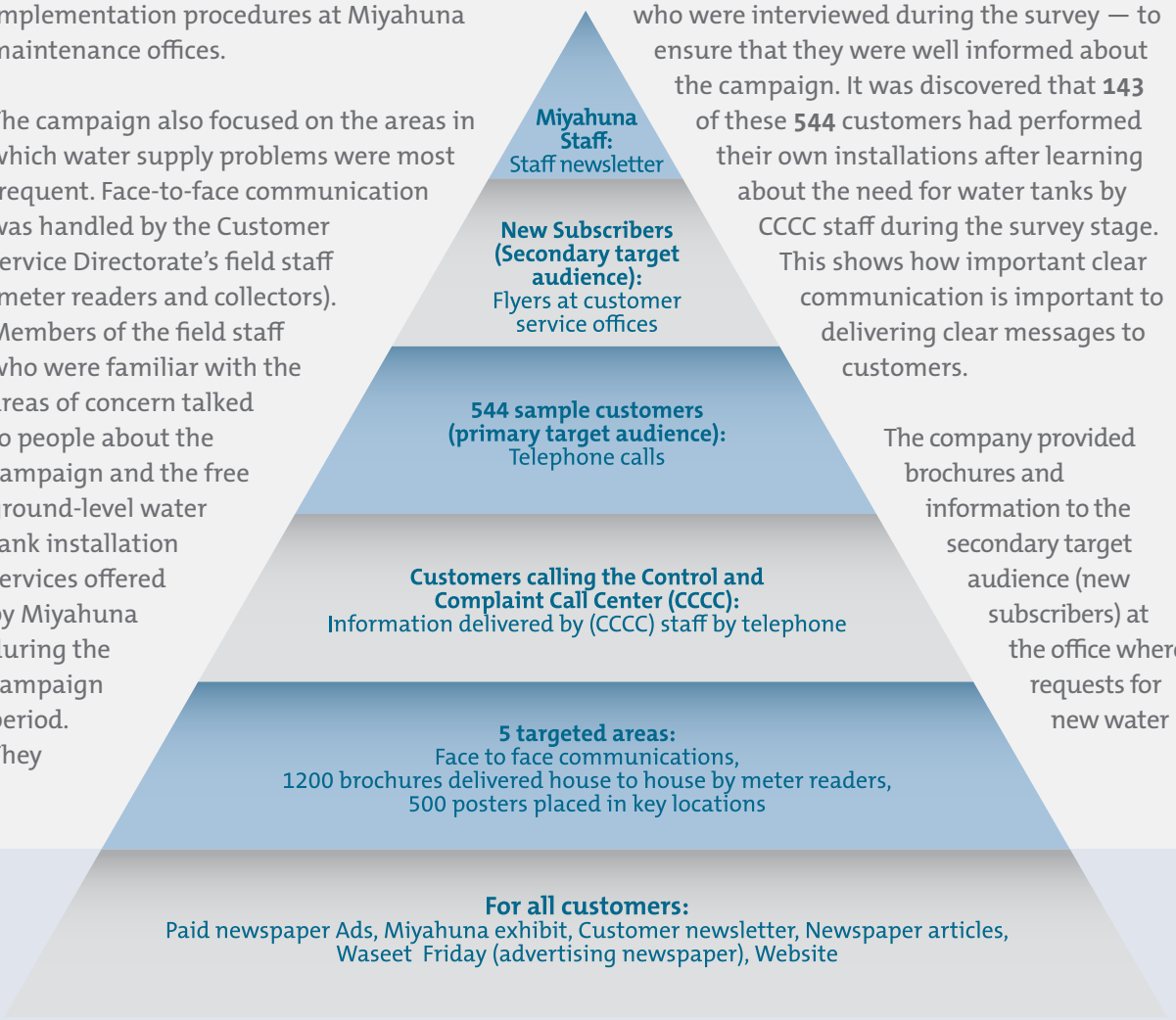

Figure 5:

connections are received.Awareness was raised about the need to install ground-level tanks at their new homes as early as possible.

Miyahuna staff members were also made aware of the campaign through internal communications mediums such as staff newsletters and daily electronic newsletters.

Clear messages were delivered to target audiences and provided factual information concerning expected behaviors and roles to be played by consumers.

A slogan was also selected: "You buy the tank ... Miyahuna installs it for free"

3 | 2.7.4.1 Media

Media reporters were also involved in the campaign. Miyahuna's Communications Department provided clear details about the campaign, the social marketing strategies used, survey findings, and incentives provided to customers. Reporters also outlined the coordination between the company's technical and communication departments in achieving the strategic objective of preserving Miyahuna's image as a professional water supplier that cares for its customers.

Several articles published by local newspapers featured interviews of people who received the free service. Their positive feedback helped garner more attention for the campaign.

3 | 2.8 Results

- **143** customers installed ground level tanks and pumps on their own without Miyahuna assistance, following information provided by the CCCC during the research phase
- **82** customers called the CCCC to get information about the campaign
- **86** customers installed tanks and pumps during the implementation phase of the campaign, and benefited from the free installation service.
- This translated to **229** less complaints received by the CCCC per week



a) Meter reader hanging poster at a supermarket... b) ... and distributing brochures to the bakery owner... c) ... while a Miyahuna plumber installing a tank at a house

مواطنون استبقوا أزمة الصيف «المائية»
بتركيب خزانات إضافية

THE JORDAN TIMES

Miyahuna encourages Amman residents to rethink water from the ground up

«مياهنا» تتكفل بعملية تركيب «خزان ومضخة»
لمن يعانون مشكلة في التزويد المائي

3 | 2.9 Why is Social Marketing a Best Practice??

1. Social marketing is an effective tool for behavior change campaigns
2. Conducting research is an essential part of the social marketing process, as it provides crucial information about customers
3. Social marketing methodology involves both the Communications and Technical directorates, which allow outreach and public awareness raising more effective in achieving Miyahuna's overall strategic goals
4. Using research with a social marketing approach produced noticeable results that were also outlined by the media and the press.

3 | 2.10 Principles for successful social marketing campaigns

1. Benefit from previous successful campaigns: learn from successes and failures
2. Always start with a target audience that is ready for action – the "low hanging fruit"
3. Promote one behavior at a time
4. Remove barriers and make use of motivators for behavior change
5. Provide incentives to encourage target audience to adopt the desired behavior
6. Use simple and clear messages
7. Make messages fun and creative
8. Facilitate access to the goods or services you are promoting
9. Involve other departments in the campaign to ensure a coherent communications strategy
10. Use proper communications tools to reach your target audience.

4 Customer Relationship Management in the Water Sector, MENA Region

A necessity, not a choice

Mokhdar Sid Ahmed

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Abstract

Improving public services water offered to clients (user) is a priority and major concern for water services and sanitation in many countries.

The success of certain water-service suppliers relative to others in meeting the demands of their dependents lies in an active understanding of their user demographic, which translates to a commitment for continual innovation and improvement of standards of service quality. These companies have mastered the art of customer relationship, and in doing so, the countries they represent have surpassed others, particularly countries in the Middle East and North Africa (MENA), who are struggling to introduce significant reforms based on the modern business model of cost recovery, marketing, supply and demand.

More than ever, customer satisfaction is a central concern, and the ability of a company to manage this intangible element lies in proper evaluation of the system of access and the officials who represent this system to the client.

The analysis of this situation in these countries is in need of a fresh perspective, for these countries all face similar problems. This belief was echoed in the forum organized by GIZ and ACWUA between **2006** and **2011**.

It is in order to organize and structure the ideas surrounding this issue that we present herein a set of proposals of best practices, which aim at providing sustainable and high-quality services to all consumers who subscribe to water services in the MENA region.

Today, customer relationship management is a necessity and not a choice, the situation being complicated by the fact that clean water and sanitation is a human right with an ambiguous political status: not entirely privatized, not entirely under the domain of public works. As well, government attends to the needs of these companies in legislation, and by providing non-discriminatory financing, which often results in administered pricing m^3 to limit the capitalistic tendencies of private enterprise.

In this regard, it is now recognized as necessary that the public and private water-service firms operating in all MENA countries should conduct an audit of the CRM process within its limits, accounting for its internal structure and external image, what strengths and weaknesses emerge from this system, and what niches remain to be developed to avoid implication in such political polemics. Through the results of this audit, each operator must set long term socially minded goals, to be realized by **2015**, having in mind the universal improvement of customer communication and orientation.

These objectives should be SMART (Specific, Measurable, Achievable, Realistic, Timely), would result in:

- A significant improvement interfacing with the user (implementation of local service centers such as versatile sales agencies, well trained and technologically current call centers, and other agencies such as online resources accessible round the clock.
- Guidance and information made available to clients using all available technologies, old and new (radio, TV, internet, journal, magazine, leaflets, brochures, ...)
- Improved presence in social media (Twitter, Facebook, etc.) and participation in relevant social discourse as held in this media
- Better management of accounts receivable
- Establishment of new synergistic alliances such as business agreements with external service providers (eg. post office, telephone companies, Internet providers, advertising agencies, etc.) to support mutual interests and demographic overlap between these companies.
- Improvement in the payment system (proper handling of technologies such as online payment, credit card, post offices, etc.).
- Personalized payment systems for users with financial difficulties (scheduled payments, etc.).
- More efficient expansion of the service network including smaller delays to potential customers awaiting connection to the water and sanitation system
- More information and clearer explanations for users, especially in pricing.
- Simplification and explanation of the billing process.
- Faster and more rigorous monitoring of queries and complaints.
- Less delay in the fulfillment of commitments undertaken
- Better implementation of water conservation awareness programs
- Better understanding by both company and client of the roles, rights and responsibilities each has to the other
- Regular monitoring of overall customer satisfaction through surveying
- Projection of a humble business image in which “the client is always right”

There are a number of options and areas that can be explored to improve the CRM strategy. In order to implement new measures which aim to improve upon the efficiency of the existing system, management must make use of the appropriate company organization, a team of well-trained and professional staff, as well as the establishment of universally applied norms which reflect the fundamental concept of CRM: To identify the customer

- To understanding consumer behavior
- To outline the stages of the value chain between product and consumer
- To smooth out internal dynamics in the company, whether between individual employees or whole departments, insofar as mutual collaboration is possible

In this context, it becomes ever more desirable that the domain of public works properly supports its international operators, taking particular interest in staff training and team development within the customer relations field. This task should be easily handled by training centers belonging to existing water services in the MENA region (members of ACWUA), the appropriate hosts selected according to specific criteria. In the same vein, it is necessary to consider the creation of national and regional competitions, with prizes awarded to the utilities leading the field in customer satisfaction in order to encourage growth in this sector. One possible format for this competition would draw inspiration from Jordan’s «King Hussein Leadership Prize,» for example. Water and sanitation suppliers in the MENA region should also be encouraged to get fully accredited, as the certificate bestowed by this process requires the utility to fulfill a set of professionally established criteria proving good business ethic:

- Of quality of response to the client
- Of compliance with commitments
- Of staff qualification

The conditions for this certification must be established by senior MENA countries and held as a regional model, if they are not to follow standard certification protocol as issued by international bodies such as AFNOR, ISO, TSM, TQM, etc.

Moreover, to cite a similar approach commonly used in the western business model, disputes arising between customer and service can often be amicably resolved through mediation. This entails the participation of a third party, the mediator, who plays an intervening role, contributing guidance and facilitating communication through their expertise in negotiation, ethics and law. This functionary is much in line with MENA traditions and habits (EL Kabîla Alâchira, Djama›a el, etc.), and assuming impartiality, ensures a fair outcome for all parties.

Using this strategy and plan of action, operators in the MENA region must finally pose the question: have we exhausted our efforts in reaching a maximum state of customer satisfaction? This is an essential step in the process of quality management, one befitting the noble mission of the water-service institution whose product has growing geopolitical implications as it becomes scarcer day by day. To answer this question, we must first ask a more fundamental one. We must determine the impact of CRM on the development of strategies and policies by companies in this field, taking into account the utility's influence on the economy and its financial equilibrium. Water services majorly influence the lives of the citizens reliant on it, and consequently on the total functioning of our environmental system.

4 | 1 Customer relationship in the water sector, MENA Region A necessity and not a choice

In the global village, there are still many governments whose major priorities include the improvement of public access to clean water. The success of certain water-service suppliers relative to others in meeting the demands of their dependents lies in an active understanding of their user demographic, which translates to a commitment for continual innovation and improvement of standards of service quality. These companies have mastered the art of customer relationship, and in doing so, the countries they represent have surpassed others, particularly countries in the Middle East and North Africa (MENA), who are struggling to introduce significant reforms based on the modern business model of cost recovery, marketing, supply and demand.

This reform is made possible by advancements in infrastructure such that the major focus is no longer on water potability and expansion of the sewage network. These old-world industrial concerns forced a gap between management of technology and sales, and though necessary for the establishment of quality service, it came at the cost of limited accessibility. It is only since the nineteen-nineties that MENA region governments have been able to move their priorities away from development and towards the management of public relations, in effect bringing these businesses into the **21**st century and into line with their legal status (EPIC, SPA, Office, etc.). Companies in this region are poised to make a competitive transition into the global market by abandoning the old mentality, which placed importance on production, and adopting the modern philosophy that prioritizes sales. In this new industrialized environment, water services in the MENA region should be able to meet the needs and expectations of its customers. More than ever, customer satisfaction is a central concern, and the ability of a company to manage this intangible element lies in proper evaluation of the system of access and the officials who represent this system to the client.

The analysis of this situation in these countries is in need of a fresh perspective, for these countries all face similar problems. This belief was echoed in the forum organized by GIZ and ACWUA between **2006** and **2011**. It is in order to organize and structure the ideas surrounding this issue that we present herein a set of **proposals of best practices**, which aim at providing sustainable and high-quality services to all consumers who subscribe to water services in the MENA region.

Beyond this, there exists a body of academic discourse which we will not summarize in this paper as it has already been the subject

Figure 1: Illustrates the CRM process

of several publications by several writers since **1990**, most aimed at commercial enterprises that seek to move volume of a discrete product, unlike companies in the domain of Water and Restructurings whose primary concerns lie in public access, customer fidelity, and resource conservation.

To this end, we will discuss the concept of Customer Relationship Management (CRM) as a business unit, focusing on its size, usefulness, importance and adaptability within these companies. It is our hope to accurately portray the challenges faced by these companies in the MENA region, and to offer a complete view of the key issues and challenges faced by the operators in this field, for it is they, as individuals, who ultimately represent the company's image to the client.

This modest work is divided into **3** parts. After an introduction on the general history of CRM and its role within companies operating in the water sector, we shall analyze the strategies by which a company may use CRM to lift their profits simply through improving the customer experience. Finally, some concluding remarks with an eye on the future of the industry.

4 | 1.1 Defining Customer Relationship Management (CRM)

This concept of CRM is no longer innovative. It is built upon the ancient foundation of good business practice, and includes both the science of marketing and the art of integrity with respect to the customer, applied in a balance that maximizes profit. CRM is a business strategy reliant on a specific set of processes and tools applied in a holistic manner in reaction to the expectations of current or prospected customers. It is a dynamic and adaptable art form that is both strategically driven towards a company ideal and tactically opportunistic in attracting new business and addressing the concerns of existing customers. Furthermore in this respect, CRM is not just an umbrella technology applied strategically from the board room, but a work ethic; one carried out by every individual within the company insofar as they are professionals whose knowledge affords them proper judgment as for the appropriate time and channel of action when intervention is deemed necessary [1].

- **Know your customer:** Management should collect demographic information on its clientele by any reasonable means in order to know its market share and to detect new potential customer groups. By so dividing the populace into units (according to variables such as income, network access, choice between competitors, etc.), the company may adopt different strategies tailored to the demands of each specific group. Computer technology today allows us to build, manage and analyze massive databases with very little effort and at a very low cost, and the company that neglects using this technology to its fullest extent will be crowded out by the competition.
- **Choose a client:** the next step is a statistical analysis and interpretation of the data collected, the results being made available to all departments directly involved with the clientele. These results provide objective information on which the company must base its overall operational plan of action. Some questions that may be statistically addressed by companies specifically in the water-services sector:
  - Who is currently a customer? Who is not? Who has no or limited access to the network? Why, and how to improve?
  - What are the overall accounts

1 Source: Stanley Brown "CRM: Customer Relationship Management", Global Village edition, Paris. **2001** - P **09**)

receivable? What demographic is reticent in paying their bills? What possible explanations, and what collection strategies are appropriate?
- What types of customer complaints are most frequent? From where in the company-user relationship do they arise? Have the claims been supported? If yes, how to prevent future complaints of the same nature? If not, why have they not been addressed?
- What sort of client is most likely to express dissatisfaction with the service?
- Who took part in the "willingness to pay" decision?
- Who in general is paying for water services? What attributes define the average client?

In answering these questions, we begin to understanding the behaviour of customers with respect to the service; what their preferences are, who is creditworthy, who is not. Important considerations arise as to the strategy applied to every form of customer such that, for example, those who pay their bills on time may be handled differently from those who tend to default on their payments.

- **Winning new clientele:** the implementation of a customer-oriented strategy touches every aspect of the business process (accounting, branching, reporting, invoicing ...). It is the source of ideas for all new sales (through expansion of the network and increased accessibility), and the primary weapon to fight against losses (NRW: Non Revenue Water, theft, etc.), and the primary tool by which production resources may be mobilized in service of new business opportunities. It is also to this end that companies employ new technologies that permit more efficient customer interaction (televised reports, ease of payment through online billing and banking ...)
- **Retain the best customers:** Loyalty programs are an ideal opportunity to launch a personalized relationship with the client by offering him incentives that the competition does not, such as end-of-year gifts to reward customers who pay faithfully and on time, or those large consumers who take active measures to limit waste, etc. These programs must be well advertised to the public across as many media as possible. Satisfied customers are more likely to be loyal customers, and such loyalty can create a "ripple effect" as the satisfied customer become an unofficial advocate of the service, advertising beyond the company's means by positive word-of-mouth.

4 | 1.2 Obligation of the audit process to CRM in business services, water and sanitation

The notion of customer service and service quality must be recognized as a fundamental business practice to those working in the field of water and sanitation in the MENA countries, regardless whether these companies function in the presence or absence of competition. Today, customer relationship management is **a necessity and not a choice**, the situation being complicated by the fact that clean water and sanitation is a human right with an ambiguous political status: not entirely privatized, not entirely under the domain of public works. As well, government attends to the needs of these companies in legislation, and by providing non-discriminatory financing, which often results in administered pricing m^3 to limit the capitalistic tendencies of private enterprise.

Most historical cases of such government control follow some disservice that resulted in a large loss of customers and a general weakening of the infrastructure. In the MENA region in particular, a political landscape characterized by tension, particularly **the Arab awakening** of the last half century, these semi-private public services have inherited a larger responsibility that goes beyond political reform; they must build a relationship of trust across the political and religious subdivisions within a country and in doing so, help stabilize these societies.

In this regard, it is now recognized as necessary that the public and private water-service firms operating in all MENA countries should conduct **an audit of the CRM process** within its limits, accounting for

its internal structure and external image, what strengths and weaknesses emerge from this system, and what niches remain to be developed to avoid implication in such political polemics.

Through the results of this audit, each operator must set long term socially minded goals, **to be realized by 2015**, having in mind the universal improvement of customer communication and orientation.

4 | 1.3 These objectives should be SMART (Specific, Measurable, Achievable, Realistic, Timely).

Potential areas of improvement within CRM for business services, water and sanitation in the MENA region.
There are a number of options and areas that can be explored to improve the CRM strategy. In order to implement new measures which aim to improve upon the efficiency of the existing system, management must make use of the appropriate company organization, a team of well-trained and professional staff, as well as the establishment of universally applied norms which reflect the fundamental concept of CRM:

- To identify the customer
- To understanding consumer behavior
- To outline the stages of the value chain between product and consumer
- To smooth out internal dynamics in the company, whether between individual employees or whole departments, insofar as mutual collaboration is possible

These measures aim for specific results:

- A significant improvement interfacing with the user (implementation of local service centers such as versatile sales agencies, well trained and technologically current call centers, and other agencies such as online resources accessible round the clock.
- Guidance and information made available to clients using all available technologies, old and new (radio, TV, internet, journal, magazine, leaflets, brochures, ...)
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- Better implementation of water conservation awareness programs
- Better understanding by both company and client of the roles, rights and responsibilities each has to the other
- Regular monitoring of overall customer satisfaction through surveying
- Projection of a humble business image in which “the client is always right”

Any business that can apply the above suggestions will surely achieve the three main objectives of CRM:

- Reputation for a quality product
- Customer satisfaction
- Employee satisfaction

In this context, it becomes ever more desirable that the domain of public works properly supports its international operators, taking particular interest in staff training and team development within the customer relations field. This task should be easily handled by training

centers belonging to existing water services in the MENA region (members of ACWUA), the appropriate hosts selected according to specific criteria. In the same vein, it is necessary to consider the creation of national and regional competitions, with prizes awarded to the utilities leading the field in customer satisfaction in order to encourage growth in this sector. One possible format for this competition would draw inspiration from Jordan's "King Hussein Leadership Prize," for example.

Water and sanitation suppliers in the MENA region should also be encouraged to get fully accredited, as the certificate bestowed by this process requires the utility to fulfill a set of professionally established criteria proving good business ethic:

- Of quality of response to the client
- Of compliance with commitments
- Of staff qualification

The conditions for this certification must be established by senior MENA countries and held as a regional model, if they are not to follow standard certification protocol as issued by international bodies such as AFNOR, ISO, TSM, TQM, etc.

Moreover, to cite a similar approach commonly used in the western business model, disputes arising between customer and service can often be amicably resolved through mediation. This entails the participation of a third party, the mediator, who plays an intervening role, contributing guidance and facilitating communication through their expertise in negotiation, ethics and law. This functionary is much in line with MENA traditions and habits (EL Kabila Alâchira, Djama'a el, etc.), and assuming impartiality, ensures a fair outcome for all parties.

We may observe some other innovative examples of consumer solutions being put to practice in certain countries in the MENA region:

- **Morocco:** establishment and development of prepaid automatic fountains in rural areas.
- **Jordan:** among many of the highly effective solutions practiced here, integrations with the television communication network for remote real-time and accurate metering

Now, given the above discussion and assuming the priority role CRM must play in the future of water services and sanitation in the MENA region, we may extract certain actions and measures that are immediately applicable by any such company, and which so constitute the first step on their path to success:

- The development and modernization of the sales network according to one of two models, both of which provide an estimate on the number of national sales offices required to support the populace:
  - A geographical or territorial approach in which each town or municipality must have a commercial agency
  - A density approach where a number of regional sales offices are established to handle groups within a large populated region (for example, the subdivision of an urban area into pockets of **15,000** to **20,000** subscribers, a separate physical branch servicing each group).

The best way of taking the customer's needs, expectations and demands into account is by actively listening to them. Given that the home phone remains a preferred method of communication, it is imperative for utilities in the region to create a network of operational call centres (OCCs) to handle customer relations. This strategy presents a transparent and efficient way to respond to customer concerns, so long as these OCCs are performing at a high enough level of function and with access to adequate information to handle certain situations:

- In crisis management (network flooding, natural disaster, etc.)
- To spread information about distribution times
- Claims management

Any measures already undertaken or planned within MENA countries at this level should be continued and intensified. Beyond this, efforts must aim at reliability and homogeny of response across OCCs. We present the following analysis in an attempt to unify OCC design.

4 | 1.4 The OCC: Operational Call Centre

4 | 1.4.1 The mission of the OCC

The OCC provides both a bridge between the utility

and the users, and a tool that better informs the utility on the state and needs of the user. It is designed to receive information and complaints from all possible sources at the user end and within the company. With this real time knowledge of the state of the network, distribution, or works in progress, the OCC can provide a wide range of information, from the state of repair of a leak to the distribution times for each area.

Some other functions of the OCC in this context:

- to receive complaints from citizens regarding their bills, distribution, and status of the network;
- to inform the technical team of situations requiring their attention;
- to order necessary repairs to the network and monitor the work;
- to gather and actuate statistical information on the interventions;
- to keep track of the magnitude and implications of any action upon the network.

4 | 1.4.2 The organization of the OCC:

The OCC is organized around a scheduler, a supervisor, and phone counselors.

The scheduler

The scheduler has a good knowledge of the network and the different mechanisms and structure of the utility. This person is often a hydraulic engineer with much experience and a good personality; his role is essential in the operation of the OCC with many functions:

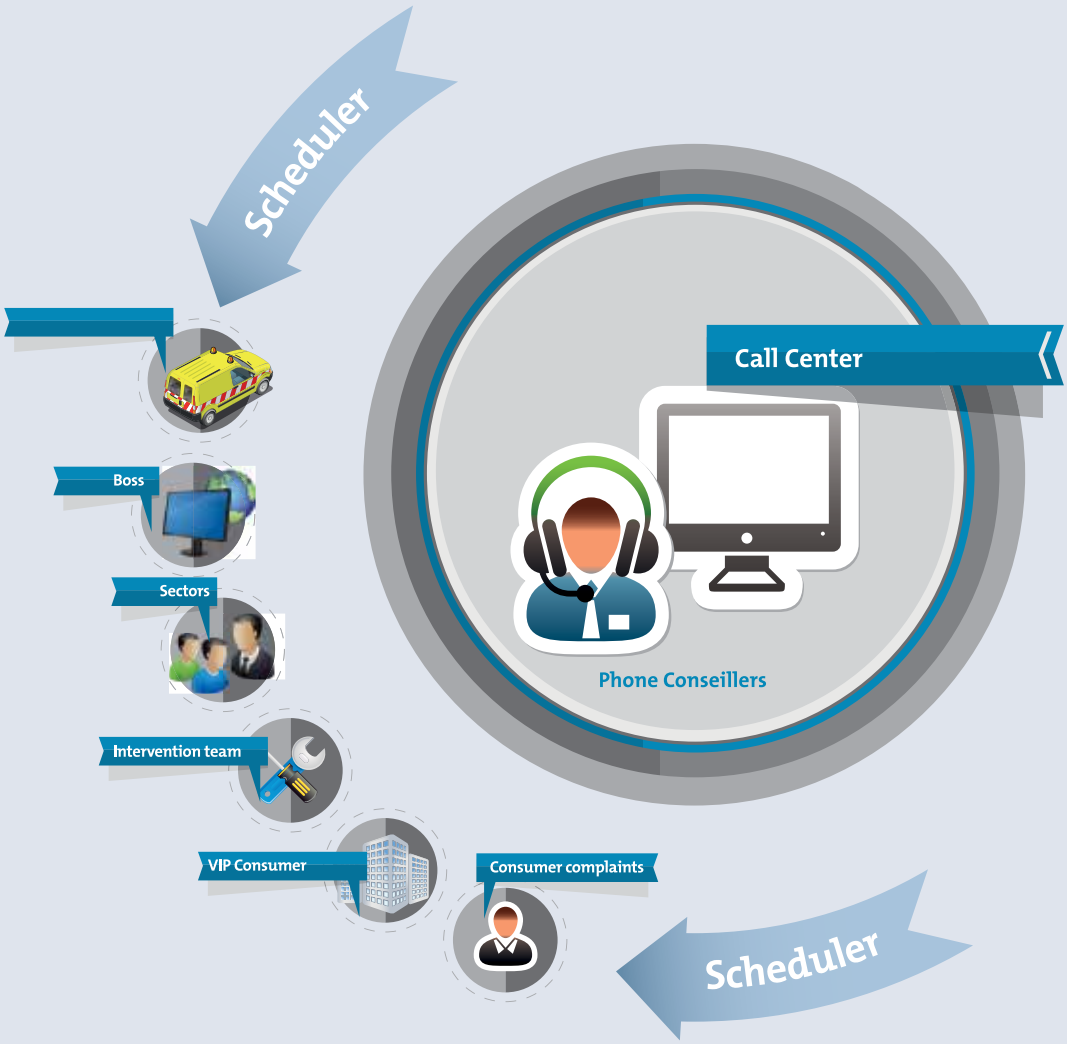

Figure 1: General diagram of OCC function

- to coordinate the work of different teams in the field;
- to assess the impact of external factors on distribution;
- to find funding for incidents;
- to understand and manage the inventory of available parts, including shipping and ordering
- to begin the repair processes on damage to the network;
- to take extreme measures in the case of an incident with major implications for distribution.

Supervisor

Supervisor responsible for ensuring smooth and efficient functioning of the OCC. As an engineer with expert knowledge on the network he can:

- measure the impact and implications of an incident on the network;
- mobilize the repair team to handle any technical incident;
- inform the various stakeholders (users, other departments) when necessary;
- organize the internal work of the OCC,
- carry out technical analyses on complaint and incident statistics

Phone Counselors

The phone counselors specially trained for this job, they must have strong communication skills and be able to give concise answers to any question. In contact with their users, they should:

- Master the tools and software that allow them to receive and pass on information;
- Have a good knowledge of the internal and technical structure of the utility;
- Be concerned with accuracy and efficiency, while maintaining a polite demeanor;

From the above schema, it appears that the OCC is a structure with three essential characteristics:

- It is a major hub for the flow information,
- It takes place in real time,
- It is a dynamic structure, continuously in motion.

We can outline the work model along four main steps:

1. **Arrival of information:**
   When contacted by a user, the administration, or an institutional partner (APC (municipality), Wilaya, ministry, etc.), the information arrives at the OCC as a phone call or fax. This is the first step in a process that triggers a series of processes.

2. **Analysis of the information:**
   A variety of information arrives at the OCC so it is imperative that the phone counseling staff can respond quickly and appropriately. It is imperative that they know the implications of the information received upon other systems, and that they can carry the task to completion.

3. **Measures to be taken:**
   To initiate a repair operation in the case if a leak, to close the system in case of contamination; each call requires a specific reaction given the different measures that may be taken. Every reported case involves a decision by the scheduler on the severity of the issue and whether to send a diagnostic team. He must define the type of work to be done, assemble the team that will arrive on site, take any initial measures himself, and contacted the security department to inform them on the intervention.

4. **Follow-up:**
   The OCC has an important mission to monitor interventions on a day-to-day basis. They get expert opinions on the damage and its possible ramifications. They establish statistics on the nature of the incidents (breakages, leakages, etc.), places most frequently affected, time of day presenting the highest risk, types of causes; and from this information they draw the proper lessons. At the same time, they must monitor all operations undertaken using software that tracks the progress of the task and archives it once resolved.

4 | 1.4.3 The implementation of the OCC:

This occurs through several steps that include:

- the creation of a database containing information about the customer and the network, maps, etc.

- development of a computer application to manage the flow of the OCC
- the recruitment and training of phone counselors
- the building of a computer network
- a pre-operative period to test the response capabilities of the employees and techniques involved. It is only after this process is completed that the OCC may consider itself prepared enough for the fast pace of work and high levels of responsibility it will encounter that it may open to the public.

The heart of the matter is that the sales and support network consists of its physical branches and its OCCs. Together they possess the widest range of techniques and processes for managing customer complaints. A well thought out sales and support network is at the core of any good business practice. In the following chapter we will introduced some lessons and application that follow from this model.

4 | 1.5 Technical management of customer claims

The most important step a company can make towards customer satisfaction is to implement a professional process for handling complaints with sincere and concrete commitments. The positive image of the company lies in its ability to listen to and handle customer claims and complaints. It remains one of the determining elements of good business strategy for it is a primary source of feedback, critical for assessing the management, performance and impact of the company.

In a highly competitive market, it is necessary to speed up the processing of returns, to reduce administration costs, and to implement automated processes to better serve the customer. Employees responsible for claims analysis must examine the statements and prioritize them based on the level of service commitment to the user as well as their overall importance to the well-being of company. They need to collect documents and correspondences related to their field and analyze the process required to resolve their claims. Unfortunately, too often these employees are flooded with documents and data and their function is slowed by the review process; it is not always so simple a task to meet the workflow objectives of an organization, or to forward the appropriate documentation to the appropriate people.

Each claim or complaint represents a failure of the company to meet the needs, latent or expressed, of its clientele. Among the most common methods of responses to complaint:

1. Direct personal contact: requires mastery of communication skills.
2. Indirect/telephone contact: already mentioned, a purely verbal approach in which a female call-center agent with a soft and reassuring voice first attempts to calm the client and treat their questions, then proposes alternatives to solve their problems.
3. Written method: an official letter is drafted to respond to the client in a professional and formal manner with clearly defined and concise content.
4. Internet (Email, company website): while not yet so widespread in MENA countries, the internet is the fastest growing method of customer-business interaction, and allows a global approach to customer satisfaction. Like the official letter, Email allows a formal and respectful point of contact, while being able to handle large volumes of similar complaints at once.

4 | 1.5.1 Recommendations to optimize claims

- Resolve complaints quickly and precisely
- Automate, streamline and optimize this complex processes
- Shorten cycle times while allowing employees to make better decisions
- Allow analysts to easily track documents within the archive
- Eliminate bureaucratic error such as duplicate reports and lost documentation
- Get perspective on the operational processes and the people involved in order to identify roadblocks and bottlenecks and to modify the allocation of resources
- Make sure that transactions are always executed in accordance with the expected process and are properly documented and linked for the sake of the audit process
- Manage customer information with a high degree of accuracy and guard it securely.

A company's image is greatly affected by the respect it holds for its client's personal information.

4 | 1.5.2 Complaints and claims:

In the event of a **complaint**, the customer disagrees with the way he has been treated. The resolution of this situation is largely dependent on CRM, but failing at such intervention, it may lead to legal consequences.

A **claim** presents immediately as a legal issue, and these are processed internally in the company, through careful review and legal analysis to determine whether it is in the interest of the company to change their decision.

4 | 1.5.3 Complaints procedure

1. All complaints must be settled in writing, the initial correspondence formally addressed to the Head of Sector who will receive the complaint and initiate action.
2. The head of the department will decide a plan of action based on an the established procedure. In the majority of cases, he or she will forward the complaint to Legal Services. They will reexamine the question in all its aspects, hear all parties concerned, including the plaintiff, and will advise the head of department in the decision process. The head of department will contact the plaintiff within two weeks of the complaint with his decision. If the complaint cannot be handled in this time, the head of department will send the plaintiff an acknowledgement of receipt indicating the date on which the complaint was treated. In most cases, these steps are enough to conclude the procedure.

4 | 1.5.4 Claims procedure

1. All claims must be settled no later than **1** months after the date of the decision which led to the claim. Furthermore, until resolved, the claim should be prioritized in all dealings with the dissatisfied user.
2. The responsible party will decide what steps to follow based on a preexisting procedure. In the majority of cases, the head of sector forwards the claim of the head of the department (who was responsible for the initial decision leading to the claim), and this person will reexamine the decision in all its aspects, hear all parties concerned, including the plaintiff, and will advise the head of sector on what decision to take.

4 | 1.5.5 Management of Complaints and Claims:

To manage well the complaints and claims, the responsible must:

- Improve the service you give your customers.
- Efficiently manage service level commitments.
- Automate the application process and retrieve lost revenue

Today, the claim:

- may be a written document stating litigatory intent
- When the plaintiff is an individual, the claim must be established in writing in the form of a simple letter on loose-leaf paper. Collective claims can be presented in some cases (undivided properties, for example). The visit sheet may, under certain conditions, warrant a claim. The visit sheet can be taken, under certain conditions, as a claim.

Claims letter

- The claims letter is a document requesting or protesting against an unsatisfactory product or service. Its purpose is to inform the manufacturer or service provider of their failure to meet one customer's expectations.
- There is no proper model for this letter as each client is different. Every individual claim should be treated in a personalized way.
- The claim today
- Should a specialist be involved in the claim process? Which specialty is required? Which expert in that field?
- The specialist in customer relations who takes charge of the client
- The specialist in commercial enterprise who must mediate between client and company
- The specialist in claims, whether trained or not in customer service
- The specialist in the area concerned in the claim, who often supports "back room" negotiations

Figure 3: Ways to accommodate the customer's claim

4 | 1.5.6 The Client Experience In Certain Countries Of The Mena Region:

- **Directing and listening to the customer:** the higher up in the company that the customer directs his claim, in general the more dissatisfaction they are experiencing
- **Monitoring complaints:** Especially if they are formal; depending on operational practices
- **Treatment complaints:** From the moment when they are known
- **Processing dysfunctions:** Depends on a judgment of severity by the department that receives or treats the claim

Phone calls from customers: the customer is dissatisfied

1. Help employees to deal with people who are furious angry or rude on the telephone
2. Help employees understand what feelings motivate this kind of behaviour
3. Help the staff to stay impartial and not succumb to the stress of the call

"How to respond to people who are furious, angry, rude, or unhappy over the phone."

- **Tip 1**
  Understand that the caller is not angry against you personally.

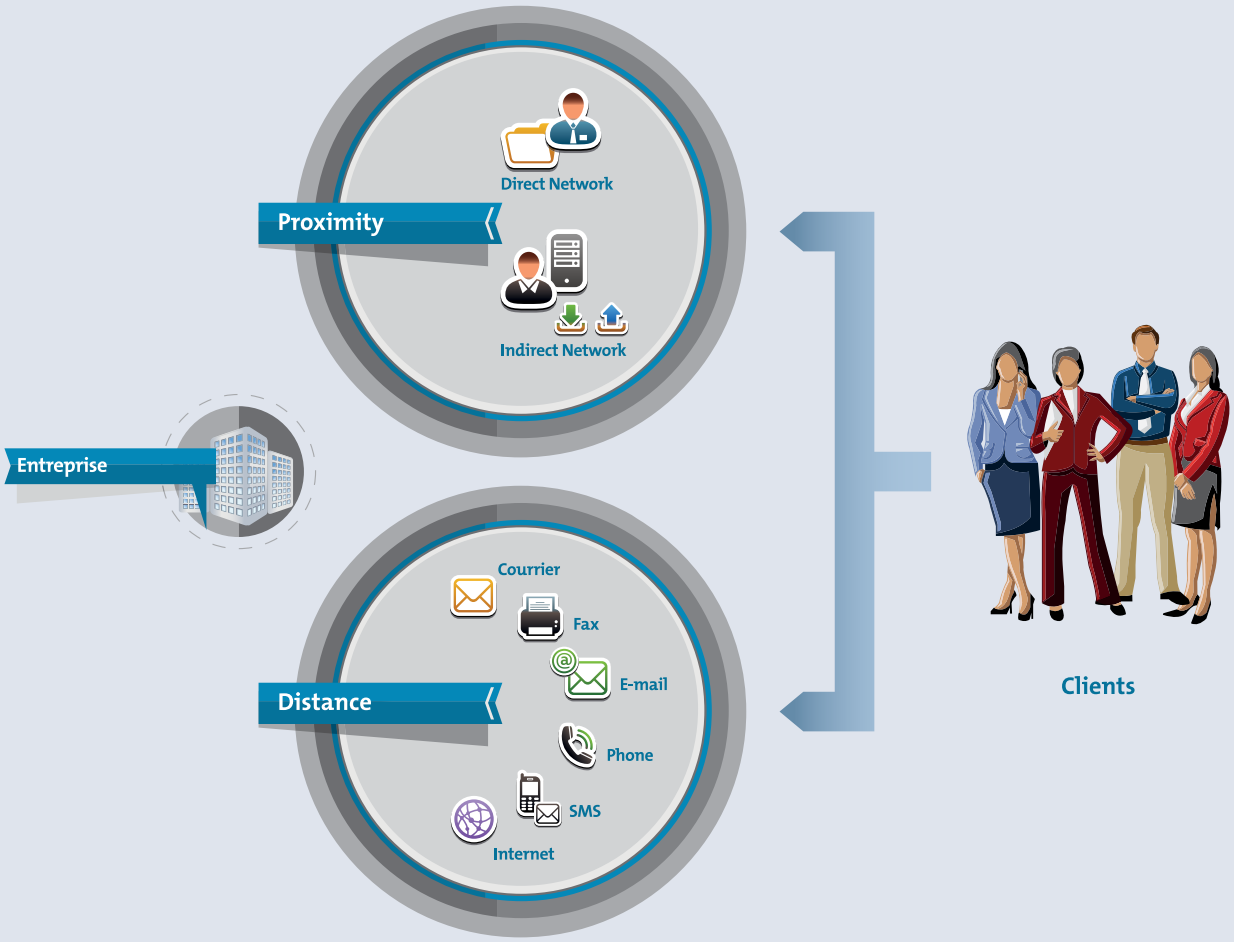

Figure 4: To make a claim, the customer chooses the best channel for his or her voice, and may use a multichannel approach

- **Tip 2**
  Use the PUAP technique to calm the client:
  - Present an apology
  - Understand their point of view
  - Assume responsibility for the call
  - Promise to help
- **Tip 3**
  - Understand that you can treat most claims, so stay in control and act professional
  - Technical Communication
- **Tip 4**
  Use positive communication or another anti-profanity technique to keep control of the call.
- **Bonus Tip**

When you respond to a complaint, never give excuses

Questions: several situations may arise:

- **When can we respond rudely or hang up?**
  Never
- **How can you calm an angry client?**
  Using the PUAP technique
- **What is the first technical stage of PUAP?**
  Present an apology and share their feelings
- **How to spend the rest of the time?**
  Calming the client.
- **What is the second step of PUAP?**
  Understanding the perspective of the other.
  - Assume **100%** of the responsibility for the call
  - Propose solutions or alternatives to solve their problem.
  - The second P in PUAP stands for promise. Give your very best in assistance.
  - In order to enhance the personal nature of your commitment, give the client your name and assure him that you can handle his problem
  - Another way to calm an angry caller is to say their name; this invokes self-awareness

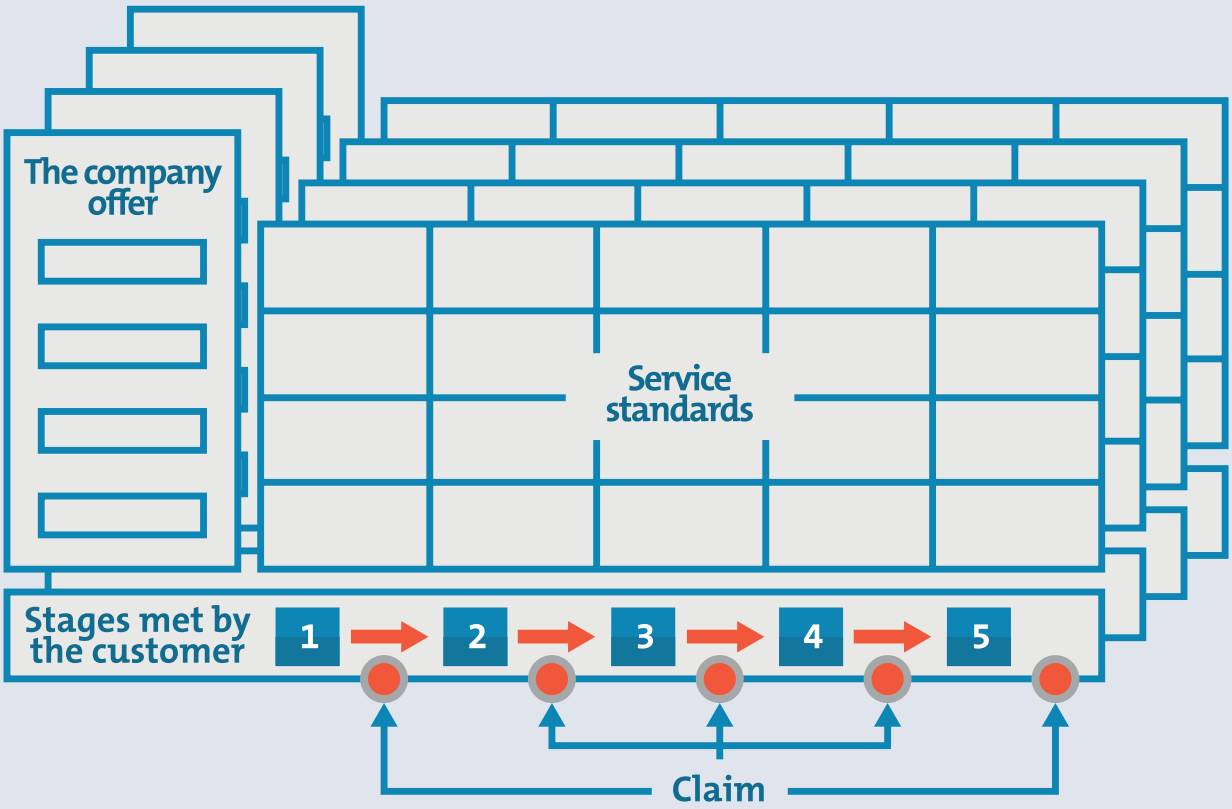

Figure 5: Diagram of the steps a claim must follow

- Most of the time you can help most people. When you cannot, see your superior
- **What do you do if the caller is rude?**
  Use anti-rudeness techniques.
- **Which is the best anti-rudeness strategy?**
  The interjection, "Please
- **excuse me, I understand your point of view, I understand your motives..." Why?**
  This technique draws their attention away from their anger.
- **What follows the interjection?**
  Resume the conversation in hand. Repeat your promise to handle their problem.
- **How can you resume the conversation at hand?**
  By asking questions.
- **What attitude should you take with a person who uses foul language?**
  Stay agreeable, calm and confident
- **Avoid all pretexts in a claim call.**
- A pretext sounds to your contact like a refusal to help.
- **During the claims call, are you a target or are you in charge?**
  Be in charge. The client is dissatisfied with the service, not you.
- **What will the caller think if you talk without conviction?**
  That you are indifferent or are lacking sincerity.
- **How should you feel when you successfully handle a claim call?**
  Good about yourself, having competently completed your work.

4 | 1.5.7 Test

1. Describe your thoughts and your emotions following a conversation call with a client who could not be satisfied.
2. How many claims calls do you get per day?
   - Some Possible answers
     - Frustration
     - Defensiveness
     - Powerlessness
     - Shame
     - Anger
     - Fear
     - Stress
     - Apathy
     - Reactionary, or desiring to shout

3. What are some physical signs (body language) or tendencies that a colleague or a client might notice?
   - Argumentativeness
   - Avoiding telephones
   - Tone of voice
   - Outlandish responses
   - Prone to crying
   - Collapsed posture
   - Abnormally quiet
   - Headache / bellyache
   - Nervous tics (foot tapping, twirling hair, etc ...)

4. New approach to claims management
   - **The claims management:** Integrated with the processes of customer relations and managed according to this style. Information is shared between all stakeholders of the company.
   - **Claim:**
     - CONTACT = collection of information
     - Positive Communication
     - Ability to handle difficult situations

A model that multiplies the channels of contact between client and business, allowing each client their preferred method of communication (Fig.4)

Faced with this situation, the company must define their overall process for handling complaints and claims, including which types of demands and what channels of communication will be declined.

4 | 1.5.8 Define and implement preventive actions to avoid situations that may lead to claims

- **Treat early dysfunction**
- **Conditions for success**
  - Move from the general to the specific
  - Take a participatory approach
  - Develop positive communication
  - Consider claims processing as a commercial act and as a way to increase business

- **Processing the application 80%**
  - Written request
    Reference Service: A response is sent in under fifteen (**15**) days from the date of receipt (or opening of the envelope in the case of mail)
  - Unacceptable: No answer over the course of a full month

4 | 1.5.9 What are the most common and recurring complaints you receive

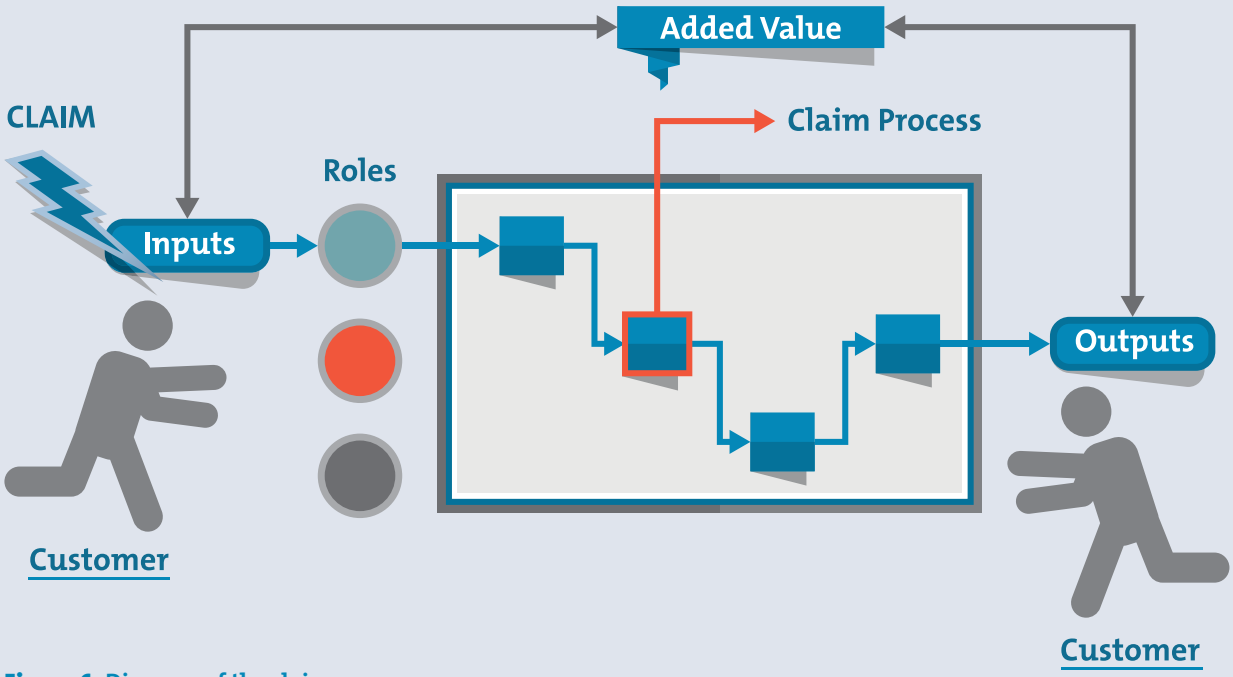

Figure 6: Diagram of the claims process

Contractual	The contract was illegible or poorly drafted, certain clauses omitted (settlement period) error in or omission of name, address, etc.
Meter reading	Wrong-reading • Reading date not respected • To ask for a reading
Index entry	• Mistake • Omission
Uncalibrated meter **Meter not accessible** **Lack of a meter** **Meter not functioning**	• Under- or over-consumption • Package exaggerated
Billing	• Miscalculation: under or over estimated • Error in the user class • Illegible bill due to printer malfunction
Payment	• Delay (failure to delay) • Delivery NSF • Non-compliance with the payment schedule
Service suspended for non-payment	• Subscription cut • Prolonged outage after payment • Resumed subscription
Situation of continued non-payment and credit score management	• Collection by injunction, subpoena, notice, carried out professionally and amicably

Table 1: What are the most common and recurring complaints you receive

At this stage, the utility must compile a report on the management of customer claims, a study evaluating the performance of the customer service department in terms of:

1. whether claims are treated by type and nature and the delay resulting from this process.
2. the impact in terms of customer satisfaction.
3. detecting organizational, procedural, communicative and employee shortcomings in the customer service department.
4. it serves also as an indicator of larger dysfunctions in the system and its organizational process.
5. it is a mean of communication (with other departments, but especially with the client).

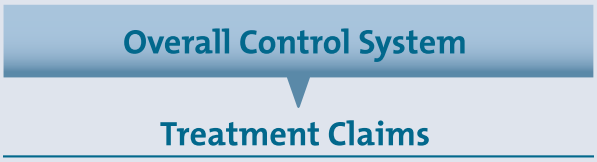

Figure 7: Diagram of the overall control system

In the same vein, we cite the example of Algeria with an annual balance sheet from the "ADE", the Algerian public water service (Table-**2**)

As we can see from this report, there's a disparity between the figures in the three regions of the country (Tizi-Ouzou: **50000** subscribers; Saida Northwest: **40000** subscribers; Naâma, South West highland: **33000** subscribers). The discrepancy in these data will ultimately determine a plan of action for senior management to improve customer service nationwide.

Designation	wilaya of Tizi-Ouzou		Wilaya of Saida		Wilaya of Naama	
	Year 2011	Year 2012	Year 2011	Year 2012	Year 2011	Year 2012
Number of calls received	**6195**	**3589**	**5535**	**4361**	**3532**	**2018**
Nature calls						
Technical claims						
Leak	1697	1310	4537	3306	1195	749
No water	3680	1508	76	56	54	35
Pollution	10	12	2	0	0	0
Other	43	60	80	70	20	10
Total	**5430**	**2890**	**4695**	**3432**	**1269**	**794**
Commercial claims						
Billing	185	170	120	53	144	153
Meter-reading error	164	112	375	191	998	264
Meter change	100	88	160	290	888	653
Connection	83	79	60	50	43	32
Other	233	250	125	345	190	122
Total	**765**	**699**	**840**	**929**	**2263**	**1224**

Table 2: Annual balance sheet from the "ADE", the Algerian public water service

Finally, to conclude this chapter and for the sake of thoroughness, the management of customer complaints takes the available forms:

APPROACH

- Physical branches are well located and easily accessible: well marked, parking, handicap access
- Operating hours suited to the daily lifestyle of the customer, with this information easily available on the building, over phone, internet
- A reception area easily accessible to customers
- Information available during off-hours: Customer Relations Centre, etc.

CONTACT

- Friendly and attentive staff able to understand their customers' needs
- Wait time reduced, if possible, to under 6 minutes

INFORMATION

- Answers that are precise, up to date, confident, and that meet client expectations
- Able to address customer claims with a suitable list of suggestions
- Keep open lines of communication between customer relations and the utility, forwarding them the appropriate customer claims

RECEIVED CALLS

- The attendant must reply to phone before the 4th ring, as this is the same quality of service that they would expect if they were the client

In the mastery of these conditions, it is possible for the utility to greatly improve the quality of service it offers.

4 | 1.6 Conclusion

Using this strategy and plan of action, operators in the MENA region must finally pose the question: have we exhausted our efforts in reaching a maximum state of customer satisfaction? This is an essential step in the process of quality management, one befitting the noble mission of the water-service institution whose product has growing geopolitical implications as it becomes scarcer day by day. To answer this question, we must first ask a more fundamental one. We must determine the impact of CRM on the development of strategies and policies by companies in this field, taking into account the utility's influence on the economy and its

financial equilibrium. Water services majorly influence the lives of the citizens reliant on it, and consequently on the total functioning of our environmental system.

4 | 1.7 Bibliography

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Annex 1 : Photos “commercial agency and operational call center with Algerian public utility water “ADE”/Bouerdess

5

Public Awareness Campaigns and Population Involvement for Sustainable Management of Drinking water and Sanitation Projects

Case study: National Office Of Electricity and Drinking Water Branch, ONEE – Morocco

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December **2012**

Abstract

This reader aims to provide information, best practices, lessons learnt in the field of public awareness campaigns and population involvement approaches for sustainable management of water and sanitation projects. The proposal is based on the outcomes of the strategies and experiences gained through the public awareness campaigns designed and implemented by ONEE WATER BRANCH (set as ONEE WB in the reader) a leading public company in the field of water and sanitation in Morocco (the national producer, first drinking water supplier and active player in the sanitation sector).

The document provides an overview of the related issues and components of the public awareness campaigns: the overall strategic framework, their objectives, key messages, targets, Stakeholders, Methods, Human Resources and communication tools.

ONEE WB's efforts and investments over the last four (**4**) decades have resulted in meeting all the needs for drinking water of the Moroccan people in the urban areas (access rate **100**%). Since **2000**, this strategic mission was broadened to two new challenges: generalization of drinking water access in the rural areas and to actively operate in the the Sanitation field.

The ONEE WB's experience in the field has showed that there is a real link between Public awareness and Public participation in the water and sanitation projects (Be informed to be involved). Therefore, combine broad public awareness with infield communication based on a participatory approach is the key to success ensuring public involvement and all stakeholders' participation for sustainable management of our water resources in the future.

In this context ONEE WB has adopted a global communication strategy in line with its business strategy and conducted PA campaigns both at broad and local levels. Therefore, the present document is structured in two major parts.

The first part is dedicated to public awareness campaigns for General Public conducted at **national level** aiming at a sustainable water resources Management (wise use of water and its preservation from pollution). This part gives the public awareness campaigns consistency and the steps of designing and implementing an integrated PA campaigns cross media (Television, radio, press and print), the best practices and lessons learnt. Examples of major PA campaigns are given in the annex.

The second part tackles the Public Awareness campaigns conducted Infield at local level for public involvement in the management of water and sanitation projects.

It focuses on the adopted participatory approach: its principles and its implementation phases.

As the specifications, constraints, and the challenges are not the same in the water and sanitation fields, this second part is divided in two chapters:

- **PA Campaigns for public involvement for Generalizing Drinking water in Rural Areas**. The large experience of ONEE WATER BRANCH's and the adopted participatory approach is described in details: the specifications, constraints, the methodology, management forms and the best practices and lessons learnt;
- **PA Campaigns for public involvement for Sustainable management of sanitation projects**. It emphases on the methods, Human Resources, Communication tools for PA campaign in the sanitation project capitalizing on the water projects experience.

ONEE WB's efforts and investments over the last four (**4**) decades have resulted in substantial achievement positioning ONEE WATER BRANCH as a leading public company in the water and sanitation in the country as:

- **The National Producer of Drinking Water**: (**80**% of the national drinking water production) year)
- **1st Supplier of Drinking Water in Morocc**o: Success in widespread water in rural areas by providing drinking water to more than **12** million people of the rural population(substantial increase of the access rate to **91** %) of which the fourth (**25**%) having connections at home.
- **An Active key player in the sanitation field**, ONEE WB is operating in**82** cities and municipalities providing wastewater management services to **3** Billion inhabitants.

ONEE WATER BRANCH has set up a future development action plan for the next five years (the period of **2012-2016**) with important investments amounting **27**, **4** billion Dirhams on the three main strategic axes:

- Maintaining, securing and strengthening the drinking water infrastructures in urban areas (**15.4** billion Dirhams)
- Generalizing drinking water In Rural Areas: ONEE WB aims to reach an access rate of more than **95**% by to **2015** (**5.5** billion Dirhams)
- Actively participate in the Sanitation sector and wastewater management services to the benefit of **87** cities and municipalities (**6.5** billion dirhams)

To meet all these challenges, ONEE WB should continue to put the participatory approach of the population at the heart of its strategy to ensure public participation and involvement. The community-based water management methods has to be promoted increasingly by ONEE WB by investing in the training and capacity building of NGO, water users Associations, population representatives, authorities and municipalities.

In the future there is a real need for focusing on regional and local PA campaigns aiming at public involvement and local communities' engagement for a sustainable management of water and sanitations facilities. Thus, the report also intends to provide insights and specific conclusions and recommendations based on the key achievements and the lessons learnt.

5 | 1 Introduction & Background

The present reader aims to provide information, best practices, lessons learnt in the field of public awareness campaigns, as well as different approaches to population involvement in sustainable water and sanitation management projects. The proposal is based on the outcomes of strategies and experiences gained through public awareness campaigns designed and

implemented by the ONEE Water Branch, a leading water and sanitation public company in Morocco. ONEE Water Branch is the national producer, is the leading supplier of drinking water, and an active player in the sanitation sector.

The present document provides an overview of issues and components of public awareness campaigns, such as the strategic framework, the objectives, key messages, targets, stakeholders, methods, human resources and communication tools.

ONEE WATER BRANCH's efforts and investments over the last four (**4**) decades have fully satisfied drinking water needs in the urban areas of Morocco (access rate **100**%). Since **2000**, ONEE's strategic mission was broadened to include **two new goals**: 1) to generalize access to drinking water in the rural areas, and 2) to actively operate in sanitation. To sustain its achievements and continue to meet the multiple challenges of developing access to water and sanitation in urban and rural areas, the **ONEE WATER BRANCH has adopted a global communication strategy in line with its business strategy and conducted PA campaigns at both national and local levels.**

The present document is structured into two major parts, as follows.

The first part is dedicated to national **PA campaigns, targeting the general public**, on sustainable water resources management (wiser use of water and pollution prevention). Here, we will present the public awareness campaign content, as well as the steps in designing and implementing integrated cross-media PA campaigns (television, radio, press and print).

The second part tackles local PA campaigns conducted in the field, which targets public involvement in the management of **water and sanitation projects. Here, our focus will be on the adopted participatory approach, its principles and its implementation phases.**

As the specifications, constraints, and challenges are not the same in the water and sanitation fields, this second part will be divided into two sections:

- **PA campaigns for public involvement in generalizing drinking water in rural areas.** The ONEE WATER BRANCH's vast experience, and the participatory approach it adopted, are described in details. The section will also present the specifications, constraints, methodology, management forms and the best practices and lessons learnt;
- **PA campaigns for public involvement in the sustainable management of sanitation projects.** The section places an emphasis on the methods, human resources, and communication tools used in the PA campaign for the sanitation project, and presents the water projects experience overall.

Finally, the report will also offer some **conclusions and recommendations** based on key achievements and lessons learnt.

5 | 1.1 The water issue and its management in Morocco:

The water resource potential in Morocco is approximately **20** billion m³. An estimated **15** billion m³ is harnessed, of which only **10**% (**1.5** billion m³) is used for the drinking water supply. The remaining **90**% (**13,5** Billion m³) goes to agriculture. There are many challenges:

- Water resource scarcity in the face of growing demand (leading to unconventional desalination of sea water in the Saharan provinces and in the city of Agadir);
- Water resource vulnerability
- Cost of mobilizing additional water resources
- The generalization of drinking water in rural areas with its specifications and constraints
- The development of a sanitation projects to protect the environment, water resources, and general public health...

5 | 1.2 ONEE: Strategy and Missions

The National Office of Drinking Water (ONEE water branch ex ONEP), founded in **1972**, is a civil, and financially autonomous public company with industrial and commercial activities.

As the national producer of drinking water, ONEE's efforts and investments over the last

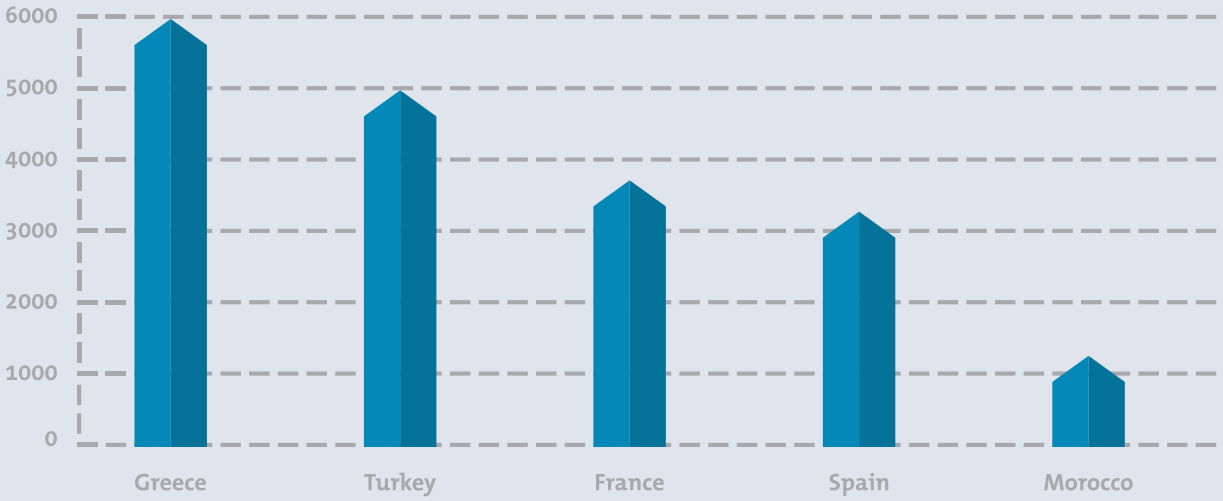


Figure 1: Water resources in Morocco Inhabitant in M³

four (4) decades have satisfied demand for drinking water in urban areas of Morocco, as well as in the communities neighboring its water pipelines. Since **2000**, ONEE's strategic mission was broadened to include **two new goals**: 1) generalization of drinking water access in the rural areas, and 2) to actively operate in sanitation.

5 | 1.2.1 The ONEE strategy focuses on the three main strategic axes:

1. Maintaining, securing and strengthening **drinking water infrastructures in urban areas**;
2. **Generalizing access to drinking water in rural areas.** This important axis is based on the principle of **"the right to water for all"**;
3. **Active participation in the sanitation sector**. Managing wastewater services in accordance with an integrated vision of the water cycle. **"Global and Integrated Management of the Water Cycle"**

The ONEE WATER BRANCH's challenges focuses on its three main strategic axes:

1. Maintaining, securing and strengthening drinking water infrastructures in urban areas: Within an important program for extension, maintenance, strengthening and securing drinking water supply infrastructures in urban areas will be provided for, as well as the improvement of connection rate and the networks performances.

These investments are made in existing and ongoing drinking water projects for major cities such as Rabat, Tangier, Nador, Fez,

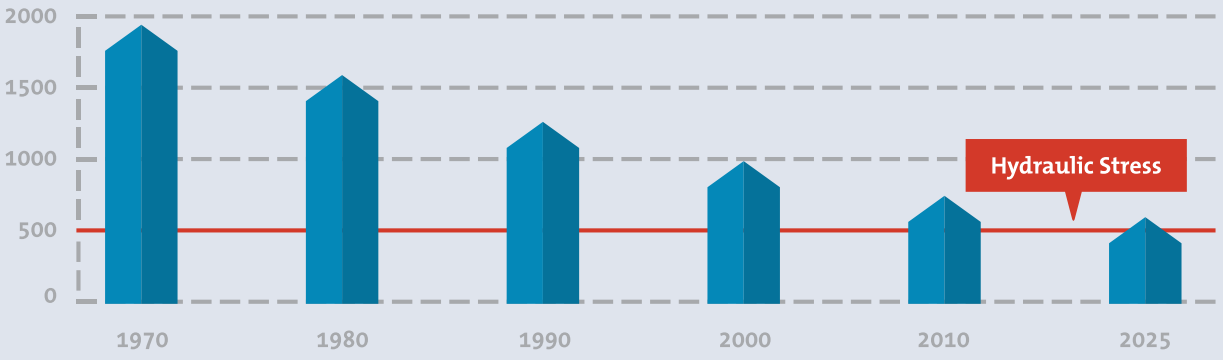


Figure 2: Water resources in Morocco in M³ for the period since 1970 uo to 2025

Agadir, Oujda, Marrakech, Laayoune, etc. (For the **2012-2016** period, the amount of future investments is approximately **15.4** billion Dirhams)

2. **Generalizing access to drinking water in rural areas.** Since **2004**, ONEE has become the primary actor in charge of generalizing drinking water access in rural areas. ONEE aims to achieve an access rate of over **95%** by **2015** (this access rate was at **14%** in **1994**).

   This important axis is based on the principle of "The right to water for all". It led ONEE to develop an ambitious program to speed up drinking water supply in rural areas to increase the social and economic development of these areas; with a particular focus on developing individual water connections instead of standpipes, in response to rural population demand.

   (For the **2012-2016** period, the amount of future investments is approximately **6.5** billion Dirhams)

3. **Actively participate in the sanitation sector and wastewater management services.** Since **2000**, public authorities entrusted ONEE with a new mission to provide sanitation and wastewater management services to the municipalities to whom they supply drinking water. It is important for this mission of wastewater management to be consistent with ONEE's integrated vision of the water cycle, in order to protect and preserve water resources from pollution and to improve population health.

   In order to make up the lag in sanitation (as compared to water supply), ONEE has stepped up its intervention in the sanitation sector by accelerating the implementation of an important investment program and development of partnerships with funders and providers.

   (For the 2012-2016 period, the amount of future investments is approximately 5.5 billion Dirhams)

5 | 1.2.2 ONEE has four major missions:

- National water supply planning in the short and long term;
- Drinking water production and quality control;
- Drinking water supply in response to municipality demand;
- Managing sanitation services for the municipalities to whom ONEE supplies drinking water.

5 | 1.2.3 ONEE is a leading national public company in the water and sanitation, as confirmed by the following key figures:

- The National Producer of Drinking Water. ONEE provides more than **80%** of the national drinking water production, approximately **1** billion of m^3 per year. ONEE covers drinking water demand throughout Morocco, in the cities, small towns and in the rural areas.
- **1**st Supplier of Drinking Water in Morocco. ONEE supplies drinking water to **1.5** million customers located in more than **600** municipalities throughout the country.
- An Active, Key Player in the Sanitation Sector. To date, ONEE has operated in more than **82** cities and municipalities, providing wastewater management services to a population amounting to **3** million inhabitants.

See Annex 1: ONEE key figures (Period of **1972-2011**)

5 | 2 Purpose & Focus of the Public Awareness Campaigns:

To sustain its achievements and continue to meet the multiple challenges of its three strategic missions to develop water and sanitation in urban and rural areas, ONEE has adopted a global and integrated communication strategy that is consistent with its business strategy.

ONEE's global communication strategy is both broad and local in its scope. It goes from

conducting cross media public awareness campaigns, to organizing in-field awareness campaigns to encourage local community involvement in the sustainable management of drinking water and sanitation projects through a participatory approach.

Over the last **4** decades, ONEE has designed its communication strategy around two major complementary components:

- **Corporate Communication (institutional and for the general public):** conducting broad, informative public awareness campaigns
- **PA campaigns at local level based on a participatory approach:** persuasive campaigns to encourage population involvement and engagement in managing water and sanitation facilities.

5 | 3 Part 1: Public awareness campaigns for General Public for sustainable water resources Management (Institutional campaigns at the national level)

5 | 3.1 The overall strategic framework

ONEE has adopted a global communication strategy that is consistent with its business strategy. It has been developed to fits into the framework of the National Integrated Strategy for Water Saving.However, communication alone cannot succeed in changing people's behavior toward smarter water consumption and preservation unless it is supported by other institutional, financial, legal and technical measures.

5 | 3.1.1 For this reason, the national strategy combines

- **At the institutional and legal levels (Water Law 10-95):**
  - Decentralization of water resources management (establishing hydraulic basin agencies)
  - Concrete measures against water wasting, pollution, etc. (introducing the notion that whoever wastes or pollutes pays)
- **At the technical level:**
  - Measures to improve network and infrastructure performance by reducing leakage (leak detection operations, meter testing, OP&M, etc.)
- **At the pricing policy level:**
  - A progressive pricing policy, where water wasters pay higher prices (billing practices that impose higher rates for higher amounts of water use)
- **At the communication level, information, awareness and education:**
  - Public awareness campaigns informing the general public about the benefits of drinking water for public health and social and economic development, as well as the importance of preventing water resources waste and/or pollution.

> "As a result of these multilevel combined efforts by relevant stakeholders and partners, the annual growth rate of water demand has decreased from **8**% in the **1980**'s to less than **3**% currently."

5 | 3.2 Public Awareness Campaigns consistency:

ONEE was one of the first Moroccan public companies to use public awareness campaigns along with activities to promote the importance of preventing water resources waste and pollution. They placed the customer at the heart of their corporate and infield communication strategy. The first PA campaign was implemented in **1982**. Its objective was to

- Promote a culture of respect for water and positive behavior vis-à-vis its use.
- Promote positive attitudes about and behaviors towards better health and hygiene

The key dates of ONEE's PA Campaigns are the following:

- **1982/1984**: Feasibility / Positioning study (ONEE, as seen by different stakeholders, actors and targets)
- **1984/1990**: Public awareness campaigns supported by audiovisual and written media (TV, radios, newspapers, public display...)
- From **1991**: Launch of direct actions on sites with various target groups, including young people and scholars as a prime focus (exhibitions, visits to water and sanitation plants, etc.)

5 | 3.2.1 The Objectives

ONEE regularly organizes global public awareness campaigns that are diffused through various national and local media outlets (TV, radio, public displays, press, and on the Internet), and are provided in all spoken languages-- Arabic, local dialects (Tarifit, Tachalhit, Tamazight, Hassania) and French.

These PA campaigns have two main objectives:

- To inform the public, elected officials and policy makers on the efforts and investments made by ONEE in both the water and sanitation sectors
- To raise public awareness of the issues and need for commitment from citizens and partners in meeting the challenges and achieving the objectives set, namely generalizing access to drinking water, developing sanitation services and achieving sustainability all-around.

5 | 3.2.2 Themes and Keys messages

- The benefits of drinking water (for hygiene and health);
- Improving water use (wise water usage everyday);
- Preserving water resources quality from pollution;
- The importance of sanitation and wastewater management;
- Water pricing policy and tariffs;
- Institutional information (ONEE Strategy, mission and project achievements)

5 | 3.2.3 Targets and Stakeholders

The general public, clients, youths, scholars, medias, the press, relevant authorities, elected and population representatives, decision-makers,

5 | 3.3 PA Campaign Design and Implementation: Steps

For the PA campaign to be successful—for it to positively impact our targets, namely the youth— and for it to have an effect on public behavior, great attention is paid to the choice of communication agency, as well as to the campaign design and implementation. Furthermore, ONEE reserves a large budget for regular PA campaigns.

The following describes the steps taken for choosing the communication agency, and for implementing the campaign:

- **Launching an open tender to preselect three communications agencies** on the basis of:
  - Their experiences, references, as well as PA campaigns conducted in the areas of public services and/or national topics (such health, education, etc.)
  - Whether they are financially able to conduct such projects
  - The quality of their human resources services, tools and equipment
- **Organizing a brief session** for the 3 selected communication agencies to brief them on the strategy, objectives, goals, themes, targets, and key messages of the water and sanitation PA campaigns
- **Setting up a panel of representatives or jury,** made up of ONEE Top management and directors from different areas:

communications, technical and engineering, water production and supply, water quality control, sanitation, a regional business unit

- **Overseeing the competition itself,** during which the **3** selected agencies submit their proposals and financial bids following the company's briefing session
- **Selecting the final communication agency based on the following criteria:**
  - The agency's vision, understanding of the issue at hand and proposed communication strategy
  - Highlighted concepts and creativity
  - Use of at least one audiovisual media type in presenting the concepts, and the agency's artistic ability
  - Media and non-media strategies developed
  - Methodology used to implement the Campaign (media planning, timing of operations, etc.)
  - Quality of the offer presentation made to the Jury
- **The offer evaluation process** will be done in two steps:
  - Examination of the technical offer
    - Relevance of the proposed methodology
    - Quality of Audiovisual media type (model used to show the artistic proposal):
    - Offer presentation made by the agency
  - Examination of the financial offer: compliance of the campaign budget (any bid which exceeds the mandatory budget will be rejected)
  - The overall rating = technical rating + financial rating
- **Selecting the winning communication agency**
- **Conducting the campaign:** the selected agency and ONEE's communication department will work as a unique team in designing the campaign, elaborating key messages, choosing creative options, drafting scripts for TV and radio spots, and optimizating overall media planning.

5 | 3.4 Additional Communications activities

5 | 3.4.1 Additional communications activities are organized by the communication department to further the success of the PA campaigns. Communication plans, which are elaborated and budgeted annually, design and implement activities for both internal and external communications:

- **Internal communications:** to raise awareness among its **7000** employees (namely those in contact with the population and partners) to harmonize the key messages and disseminate the same knowledge of the communication tools (guides, websites, marketing and communication tools and communication

materials). This can be done through workshops, roundtables and seminars focused on the communication issues that hinder greater public engagement.

- **External communications and public rapport:** raising awareness among government bodies, institutions, partners, NGOs, associations, media and press; sharing achievements and information with journalists, press releases, etc.
- **Promoting the use of New Information and Communication Technologies (ICTs):** Designing and managing portals, web sites in the Internet and Intranet. To this effet, ONEE has recently elaborated a new portal with dedicated spaces for key partners (members of the press, companies, partners, youth, as well as various associations and NGOs), as a means of fostering a new platform for interactive exchanges of information, knowledge transferring, and assistance (in such forms as guidelines, brochures, online Request, etc.).

5 | 3.4.2 PA Campaign Tools: Mobile Units

ONEE regularly organizes public awareness campaigns for the general public through various medias (television, radios, public displays, press, and the internet). To contribute to the success of these campaigns, ONEE conducts direct on-site communication activities (exhibitions, visits to water and sanitation plants, etc..) targeting various focus groups, with the youth in particular being the prime target

In this vein, ONEE has invested in PA mobile units in order to reach a larger scale of the youth in schools who are unable to visit water plants—mainly those in suburbs, small cities and in rural areas. Experience has proven that the mobile units are an effective and well-designed communication tool, which is helping to to demystify the technical concepts of water and wastewater treatment processes.

5 | 3.5 Best practices and lessons learnt

ONEE was one of the first Moroccan public companies to recognize the importance of public awareness campaign using mass media; and also one of the first to promote water resources preservation from waste and pollution and the sustainable management of water resources.

ONEE's regularly conducted PA communication campaigns marked an important step forward.

The campaigns can be characterized as follows:

- They are focused on raising awareness about wise water use (saving water at home) and water preservation, including an institutional component (i.e. new missions such as sanitation, and key achievements)
- They are global and integrated through various communication channels:
  - TV and radio (high penetration rate in Moroccan households)
  - Press (namely for institutions, partners and decisions makers)

The New ONEE's Portal using the New Information and Communication tolls Microsoft Sharepoint

Public Awareness Campaign's Slogans of the last 3 decades

- They use different mediums, such as **2**D and **3**D cartoons for the youth
- They make use of new information technologies, such as the internet, intranet, DVDs, and different social media platforms.
- They are conducted in all spoken languages: Arabic, regional dialects (Tarifit, Tachalhit, Tamazight) and French.

5 | 3.6 Conclusions and recommendations

By leveraging over thirty (**30**) years of experience conducting public awareness campaigns, ONEE has actively participated in improving customer behavior, especially among the young generation, and promoting wise water use and preservation.

The following are a few of the lessons learnt from conducting PA campaigns for the general public are:

- The PA campaigns have positively contributed to promoting ONEE's image as a strong and efficient public company with proven expertise in water and sanitation development. Referring to a large communication survey in rural areas in more than **135** municipalities: "The ONEE WATER BRANCH is leading public company known throughout its expertise in water sector and its PA campaign communication"
- The PA campaigns have actively promoted better use of water in cities and urban areas. Studies on water demand show that the annual growth rate of water demand has decreased from **8**% in the **1980**'s to less than **3**% currently.
- A shift in the public awareness campaigns' key messages advocate more public involvement, by evoking citizens' responsibility toward water resource preservation. Over time, the campaign slogan was adapted to reflect this change in message.
  - «DRINKING WATER IS NECESSARY TO OUR HEALTH ... USE IT WITHOUT WASTING IT »
  - «DRINKING WATER IS A COMMON RIGHT, USE IT WISELY »
  - «WATER FOR ALL IS OUR SHARED RESPONSIBILITY; WE MUST ALL PRESERVE IT»

Public awareness Mobile Units for youth and scholars in small towns, suburbs and rural areas

5 | 4 Part II: Public awareness campaigns in the field: Public involvement for sustainable management of water and sanitation projects (PA Campaigns at Regional and local level)

5 | 4.1 II.1 Public Awareness Campaigns: Public involvement in generalizing access to drinking water in rural areas

5 | 4.1.1 Background

Morocco's rural population is estimated at **13.4** million inhabitants, which corresponds to **44%** of the total population. The rural area is comprised of **1,298** rural municipalities and **39,300** localities (of which **46%** have a population size inferior to **250** inhabitants). At the end of **1994**, the rate of access to safe drinking water in rural areas was only at **14%**.

Rural areas in Morocco have many particularities and constraints:

- **Natural and demographic constraints:** dispersal and small size of the localities
- **Socio-economic constraints:** illiteracy, low-households income
- **Technical constraints:** a low return on investment for the projects

5 | 4.1.2 Purpose & Focus

Since **2004**, ONEE has been the primary actor in charge of generalizing access to drinking water in rural areas. Its objective is to reach an access rate of over **95%** by **2015** (which would be a significant increase from **14%** in **1994** and **61%** in **2004**).

In the same vein, ONEE developed an ambitious program to greatly increase drinking water supply to rural areas to promote better social and economic development in these areas. The amount of future investments (for the period **2012-2016**) is estimated at around **6.5** billion Dirhams.

To sustain its achievements and continue to meet the challenges of developing water services in rural areas, ONEE has adopted a targeted communication strategy that consists of public awareness campaigns in the field. Using a participatory approach, their objective is to encourage local communities to be involved and engaged in the sustainable management of drinking water facilities.

5 | 4.1.3 The overall strategic framework: ONEE's strategy: Generalize access to drinking water in rural areas

ONEE's Strategy is to:

- Generalize access to drinking water in rural areas, in keeping with the following motto: "The Right to Water for All "
- Integrate the urban-rural vision in designing water mainstay projects
- Improve project-planning and include all provinces through national master plans
- Provide adequate technical and management support for the service's sustainability (e.g. sustainable water resources, major mainstay projects, adequate management methods...).

PA activities with women in rural areas




Samples of PA brochures, films and tools (PA mobile unit in agriculture area

Management Methods

ONEE has adopted a participatory approach to ensure the sustainability of water projects.. Thus, in consultation with the target population a number of management methods were introduced and implemented.

Water Supply by Stand-posts. This management method is adopted by ONEE in rural communities comprised of scattered settlements. The method, conducted in collaboration with the target population, aims to establish and manage water stand posts (which are monitored by designated **caretakers**: a person that is the water facility keeper referred in this report by GG "**Gardien Gérant**"). The stand post system provides water services to**2.98** million rural inhabitants (**2010**); and a fleet totaling over **7,610** stand posts provides coverage to all provinces at the national level.

- **64**% reduction in the selling (increase margin GG)
- Develop on-site training for GG;
- Implementation of a computer software to follow the water stand-post Management by GG

Drinking Water Users Associations (DWUAs). Community-based management through DWUAs has become an increasingly prevalent method. The incentives and accompanying measures for using DWUAs are the following:

- Introducing a contractual framework by developing a tripartite Standard Agreement, which defines the roles of different partners (ONEE, DWUAs and Municipalities are concerned).
- Adopting a national sale tariff for water users associations
- Developing a training program for DWUAs and for representatives of related rural Municipalities, in order to strengthen their water service management skills.

Water Supply by Micro-Businesses. In order to manage and maintain small-sized water facilities scattered and dispersed throughout rural areas, ONEE uses micro-businesses (very small businesses, **3** to **5** persons) to ensure continuity of drinking water supply, reduce operating costs and contribute to rural development by generating local employment opportunities (for instance, **750** micro-business offered over **1,030** permanent jobs in **2010**).

Public-Private Partnerships. Within the framework of a public-private partnerships, ONEE involved the private sector in managing rural drinking water services. This was done using a win-win approach by outsourcing the operation of drinking water supply facilities to private operators under ONEE's supervision.

5 | 4.1.4 Public awareness campaigns content: Objectives

To ensure project sustainability, ONEE adopted a participatory approach with the local communities. The objectives of the public awareness campaigns and public involvement approach are:

- Public participation in the design and implementation of projects
- Financial participation from ONEE, the municipality and independant funders, according to a funding scheme that ensures the recovery of operating costs

- Participation in the choice of management method
- Contributing to the project sustainability: Protecting water facilities and equipment available to them, selecting the site, appointing the water facility keeper, training
- Reduce waste water (water resources protection)

Participatory approach: Principles and Methodology

Participatory approach: Principles

With ONEE's participatory approach, the idea is to involve local communities, municipalities and associations in all phases of the project.

- **It involves the population** (men and women) from project conception through to the full implementation and adoption by the population (associations)
- **It enhances population participation in choosing the appropriate management method** (e.g. stand-posts, DWUAs, PPP...)
- It is based on **dialogue, consultation**, and the idea that the project is owned by the beneficiary population
- **It is progressive and in perfect harmony with the technical project cycle**
- It provides close supervision and monitoring after the implementation of the water project

Participatory approach: Methodology and PA Steps

The participatory approach ensures that **the public Awareness Campaigns and activities with the technical project progress**.

The PA campaigns and activities, conducted in accordance with the project's progress, are organized into three phases:

- **1st Phase:** Planning and preparatory work for the Drinking Water Supply System (DWSS)
- Preliminary public awareness activities
- **2nd Phase:** DWSS Realization
- Development of public awareness activities
- **3rd Phase:** Operating and maintaining the DWSS Public awareness, supervision, assistance and training

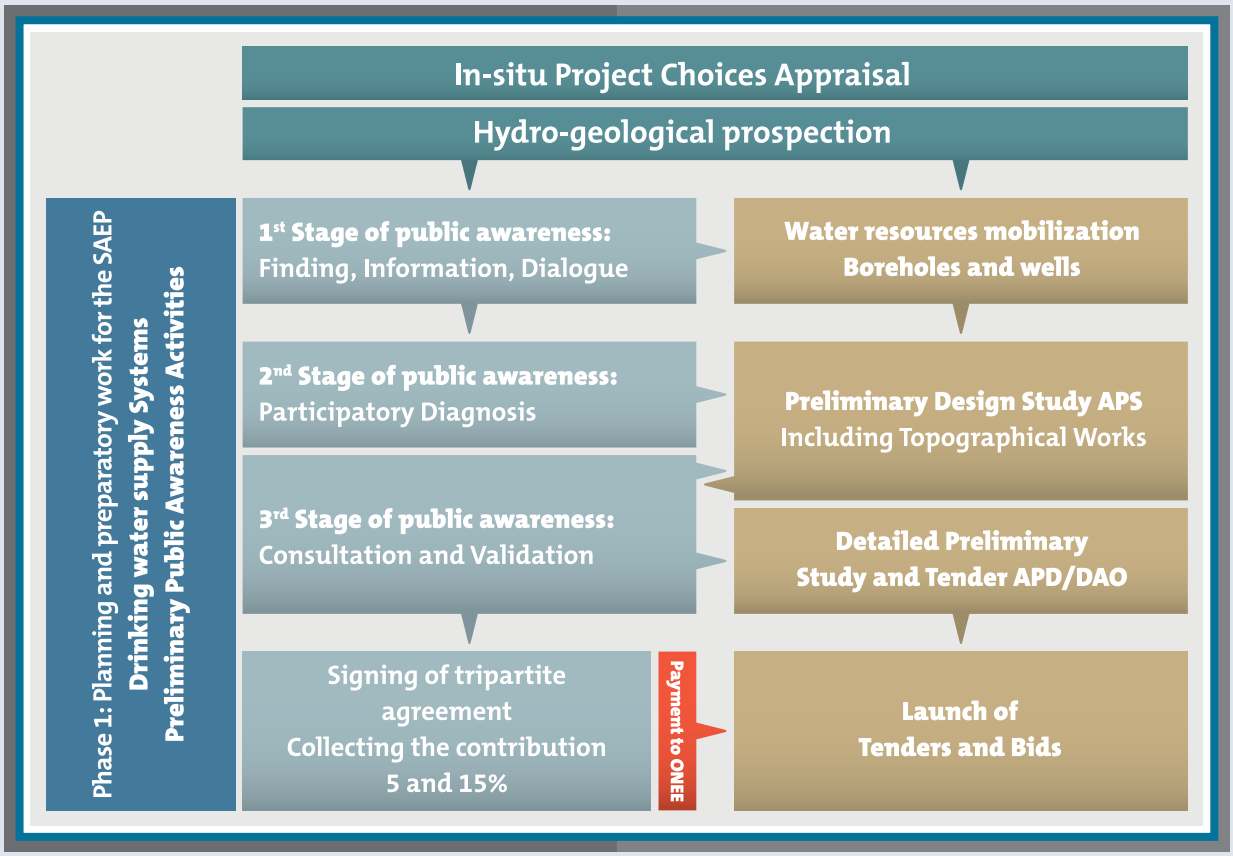


Figure 3: Planning and preparatory work for the Drinking Water Supply System (DWSS)

- **1St Phase: Planning and preparatory work for the DWSS Preliminary Public Awareness Activities**

  During this first phase of the DWSS project, ONEE conducted preliminary public awareness activities. These could be described as follows:

  FINDING, GATHERING INFORMATION AND PUBLIC AWARNESS
  - Assessing the population's knowledge of ONEE's program to generalize access to drinking water and the project conditions
  - Evaluating the current water supply situation and the population's water needs
  - Providing information and raising public awareness about water access to water and about the technical issues related to the project
  - Obtaining a clear sense of the population's acceptance or rejection of the project and its conditions

  PARTICIPATORY DIAGNOSIS
  - Analyzing and collecting data on the demographic, socio-economic and health conditions of the locality
  - Evaluating the current water supply situation
  - Assessing the population's ability to:
    - Financially contribute to the project investment
    - Afford the cost of water

  PRELIMINARY STUDY (APS: "AVANT PROJET SOMMAIRE")
  - With participation from local representatives and associations
  - Gathering and assessing data
  - Defining project components
  - Completing topographical work
  - Technical and economic study

  CONCERTATION AND APPROBATION
  - Population-led discussion and approbation of the planned DWSS:
    - Presentation of DWSS components
    - Informing users and populations about the cost of project components
    - Presentation of the financial contribution made by the locality
  - Informing the population:
    - Outlining the technical, financial and administrative terms of the future project
    - Presenting water costs and the all the parameters that determine the cost
    - Explaining cost recovery (water sales)
  - Presenting and reiterating the Convention (Agreement) established between the Municipality, the Association and ONEE
  - Signing of the Convention

  FINANCIAL CONTRIBUTIONS
  - Making financial contributions to ONEE (**15**% from the rural municipality and **5**% from the Association)

- **2nd Phase: Building the DWSS Developing Public Awareness Activities**

  DEVELOPING PUBLIC AWARENESS AND TRAINING ACTIVITIES
  - Strengthening public awareness and population involvement in supporting the project in sustaining the DWSS
  - Reiterating water costs and cost recovery methods
  - Consulting the population on individual household connections and on beginning project work
  - Training Association board members to manage their future DWSS upon completion.

- **3rd Phase: Operating and Maintenance of the Drinking Water Supply System (DWSS) Public awareness, Monitoring, Assistance and Training**

  PUBLIC AWARENESS, MANAGEMENT, MONITORING AND EVALUATION
  - Supporting and assisting Association board members with completing public awareness activities; monitoring the financial and technical management of the new DWSS

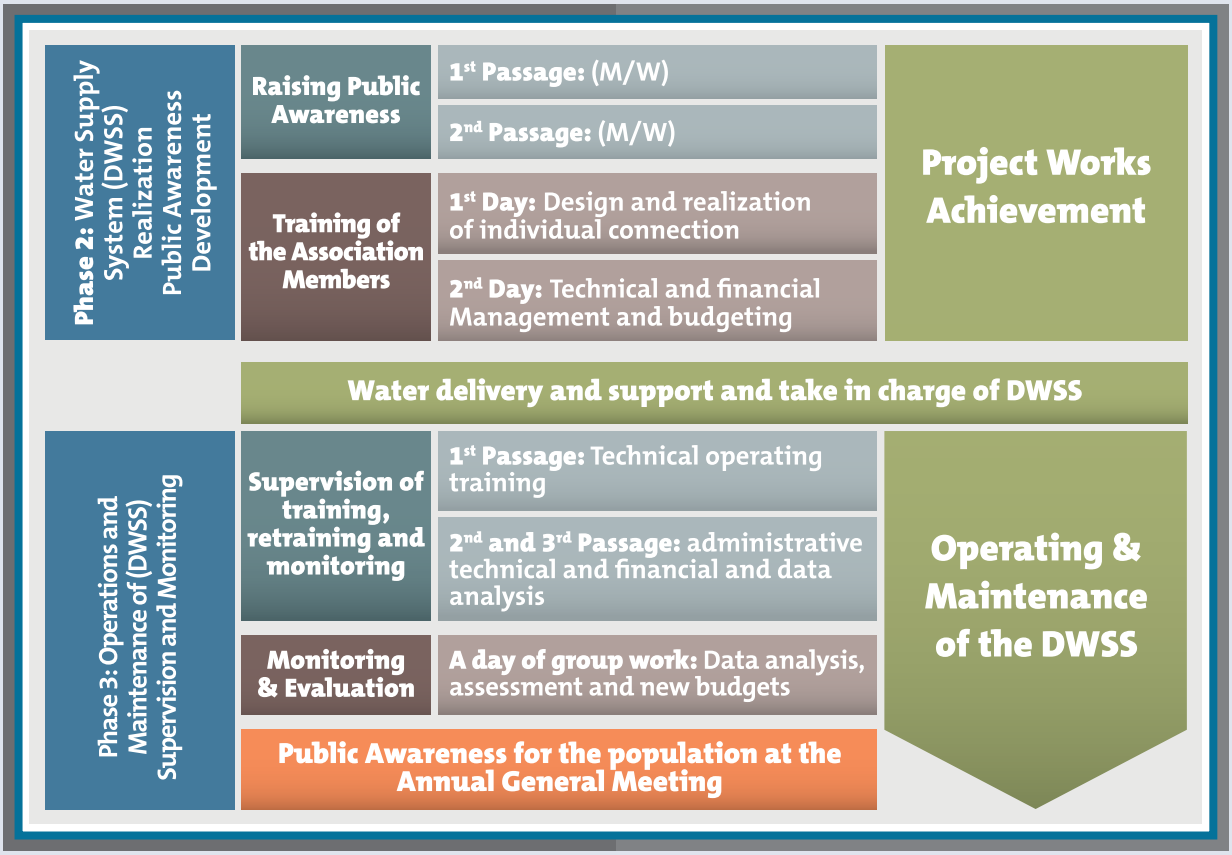


Figure 4: Phase2: Building the DWSS and Phase 3: Operating and Maintenance of the Drinking Water Supply System (DWSS) (M: Men, W: Women, DWSS :Drinking Water Supply System)

- Analyzing the work carried out by the Association as well as its management (Op & M) of the new DWSS
- Capacity building and training of Association board members in the fields of management and DWSS technical operation (reporting and evaluation system)
- Raising public awareness about the work associated with proper hygiene and wise water use

Themes and Keys messages

The key messages of the PA campaigns and activities are as follows

- **Quality and benefits of drinking water:** importance of clean drinking water, sanitation, health diseases resulting from uncontrolled water
- **Project content:** cost, construction time, sources of funding
- **Services offered:** resource mobilization, transportation, processing and treatment, supply, management...
- **A participatory approach:** participating from the population and local associations in water management; importance of population engagement in preserving water infrastructures and protecting the environment
- **Tariffs:** management and operating system requirements, progressive tariffs system, payment facilities...
- **Invoice:** clients pay for the service but not for water, customers are liable for the invoice amount
- **Economy of water:** what it is, how it works and why it is important
- **Pollution**
- **Preserving hygiene and health:** for the body and the environment

Public Awareness in Rural area, Guide for better water management by DWUA

Targets and Stakeholders

- **Final targets (beneficiary populations):** men, women, youths, scholars, clients and the general public
- **Indirect targets:** local authorities, elected representatives, local associations, local decision-makers
- **Others potential targets and partners:** regional State Department representatives involved in rural issues (such as health, education and agriculture...)

PA Campaign: Methods, Human Resources & Communication tools

- **Meetings with small groups (5-10 people):** "door to door" approach
- **Presentations:** to students in local schools, and to imams in mosques,
- Training, support and assistance to DWUAs
- Local teams trained in adapting the project to the local context;
- Mobile public awareness units
- Development of two important guides:
  - Social animation and public awareness Guide,
  - The Rural Sanitation Guide (design and implementation of sanitation systems)
- **Communication tools:** films, television spots, posters, brochures, flyers, mailed promotion...

5 | 4.1.5 Key Achievements

ONEE has successfully dealt with the challenge of generalizing rural access to water. Currently, over **12** billion rural inhabitants have access to drinking water, which represents **91** % of a total rural population spread over **19 500** localities (compare against **14**% in **1994**).Furthermore, over **25**% of the national rural population now has connections at home (instead of standpipes).

ONEE's achievements in generalizing access to drinking water in rural areas has had a number of substantial positive impacts:

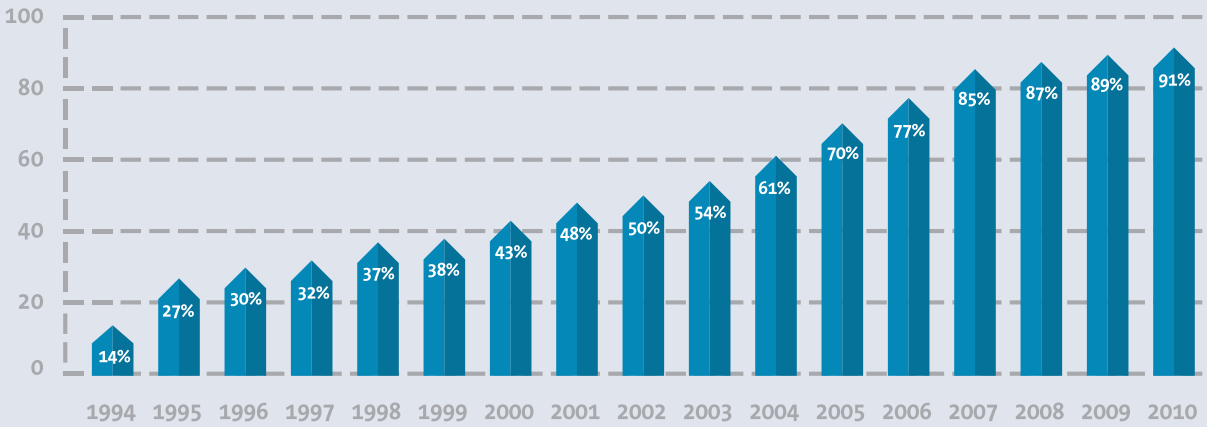


Figure 5: The increase of the drinking water access rate in rural area in Morocco

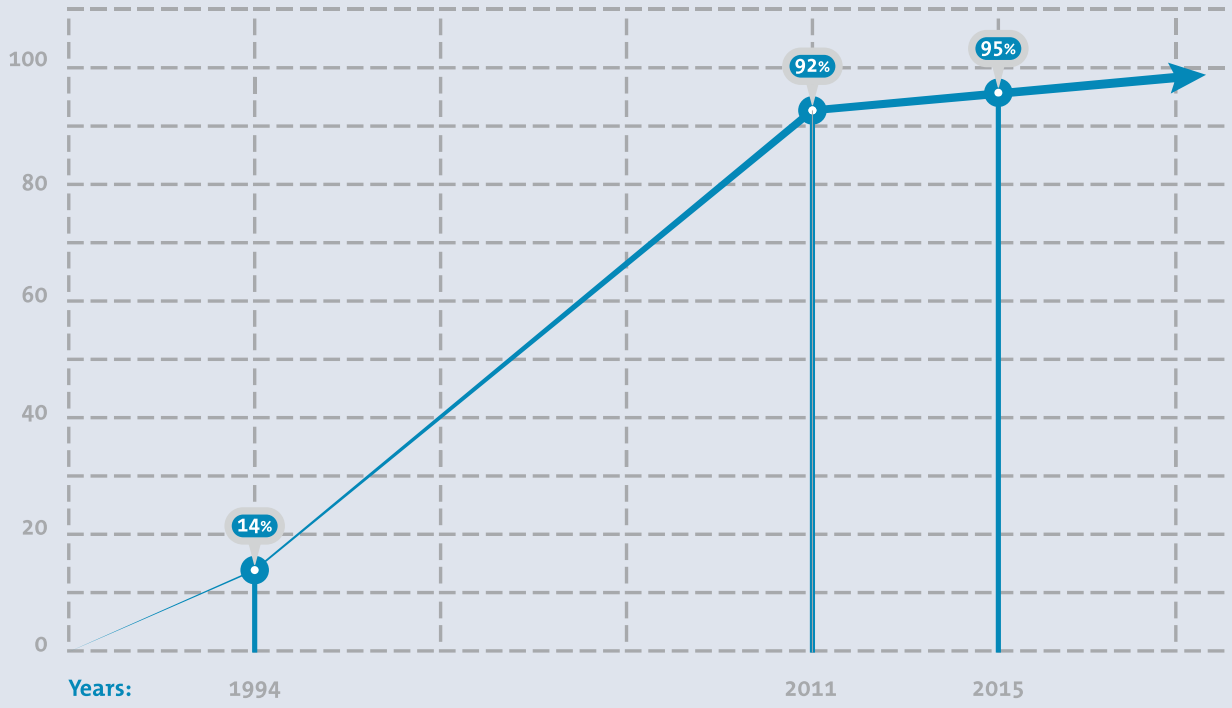


Figure 6: Development of access rate to drinking water supply in rural areas

- Increased public participation and population involvement
- Decreased water collection burden
- Increased school attendance rates, particularly among girls
- Decreased rural exodus
- Creation of local job opportunities in rural area
- Improved health conditions of the population.
- Increased participation from rural zones in social and economic development

5 | 4.1.6 Challenges and Future Prospects

The future challenge is to continue to generalize access to water for the remaining rural inhabitants living in far and hard localities marked by demographic (small population sizes and dispersed dwellings) and natural constraints (mountainous landscape). More specifically, the challenge will be to:

- Increase the access to drinking water rate to **95**% in rural areas;
- Carry out **5,5** billion MAD planned investments in the rural drinking water supply over the **2012-2016** period; and
- Expand households connections, in response to population demand, by implementing appropriate management methods.

5 | 4.1.7 Best practices and lessons learnt

A global survey, conducted in **135** rural municipalities and **20** small cities, which evaluated the participatory approach, constraints and barriers to successful communication in the field, revealed a number of best practices and lessons learnt.

Related to the institution (ONEE employees)

- Need to develop more internal communication
- Top-down decisions: strategy and orientation vs. bottom up
- Gap between manager's vision and those in the field

Related to communication practices

- Lack of internal communication
- Problems linked to subcontracting PA campaigns and communication to external consulting firms (hiring sociologists and young presenters to conduct PA campaigns). Consultants

have to be more convincing in promoting and defending ONEE's achievements.
- Need for more continuity in the public awareness program after project's implementation (no recurrence)
- Need to enhance knowledge of the methodological guide on PA and social animation activities that provide a framework and tools for effectively assisting the local partners, associations, etc.

Related to The Users: A number of constraints and barriers to population involvement
- Lack of Alternative resources
- Low income,
- Delay time in water project implementation
- Politicization of projects, especially during the initial phases
- Discrepancy between hearsay and information received from ONEE

Related to The Drinking Water Associations:
- Lack of a true partnership,
- Lack of adequate financial support and backing for the associations (the association resources are in fact very limited).

5 | 4.1.8 Conclusions and recommendations (for Drinking water in Rural Areas)

To meet all these challenges, ONEE should continue to use the participatory approach at the heart of its strategy in order to ensure public participation and involvement in water projects. Furthermore, it should continue to carry out PA campaigns and related communication activities after project implementation. This will improve project ownership and wiser water usage.

Community-based water management methods should be further promoted by ONEE through investments in training and capacity building of NGOs, DWUAs, population representatives, authorities and municipalities. There is a real need to create local communication and monitoring committees (or at least at provincial level), whose proximity to the field will facilitate communication and ensures continuity.

Moreover, ONEE should develop synergies with all partners working in rural areas by establishing joint committees in rural communes (associating ONEE, DWUAs, local authorities, the Ministries of Health and Education, Agriculture, etc.).

Finally, ONEE should conduct post-implementation evaluations of PA campaigns to collect the best practices and lessons learned, in order to identify the failures and see how to improve.

ONEE has successfully met the challenge of generalizing rural water by improving access to drinking water for more than **12** million rural peoples. This represents a substantial increase in the access to drinking water rate from **14**% to **91** % for the total rural population, of which one fourth now have connections at home.

In the future, ONEE has planned to invest **5.5** billion Dirhams in new drinking projects for the **2012-2016** period with the objective to increase the access to drinking water rate to **95**% by **2015**. As future water project success will require sustained management, ONEE will continue to keep the participatory approach at the heart of its strategy to ensure public participation and involvement. This community-based water management method will be increasingly promoted by ONEE. Furthermore, the Office will also invest in training and capacity building for NGO and Associations, as a means of developing fruitful public private partnerships (PPP) and of strengthening partnerships with relevant stakeholders (in particular with municipalities, local communities, local authorities, associations).

5 | 4.2 Public Awareness Campaigns for public involvement for Sustainable management of sanitation projects

5 | 4.2.1 Background

In order to upgrade liquid sanitation and wastewater treatment processes, ONEE has added a new impetus to its activities in the field. Through an accelerated sanitation implementation program and the development of partnerships with funders and providers, ONEE's actions have contributed to developing Morocco's

In the middle: waste water management Plant of the city of Great Nador (North of Morocco: Mediterranean sea)

sanitation sector. Furthermore, ONEE has placed sanitation (a key component of the water cycle) as one of its core strategic missions in ensuring water resources protection and improving hygiene conditions and public health.

There are currently **13** water and sanitation public companies and **4** privately-held companies in charge of providing drinking water and sanitation services to Moroccan cities. However, ONEE is now also a major player in the sanitation sector, operating in more than **82** municipalities and cities to date and providing wastewater management services to a population amounting to **3** million inhabitants. Furthermore, during the **2001-2011**, ONEE invested more than **5.7** billion dirhams into related projects.

5 | 4.2.2 Purpose & Focus

Given the importance of sanitation and wastewater management, ONEE has placed sanitation as one of its core strategic missions. It is an active actor in the sanitation field, and aims to protect and preserve the water resources from pollution and improve population health conditions. ONEE has made sanitation priority mission— as proved by the fact that future investments in sanitation projects are estimated at **5.5** billion Dirhams during the **2012-2016** period.

To sustain its achievements and continue to meet the challenges related to sanitation and wastewater management, ONEE adopted a communication strategy which, in addition to the large public campaign, consists in carrying out public awareness campaign in the field. The objective here is to strengthen local community participation and engagement in the sustainable management of sanitation infrastructure.

5 | 4.2.3 The overall strategic framework

The Institutional Framework

Though progress in the sanitation sector compared to the water sector, the last two decades have seen an accelerated and sustained development, as demonstrated by these key dates:

- Late **80**s: Sanitation studies are launched for projects on water resources protection aimed at potable water supply;
- Early **90**s: The Liquid Sanitation National Plan (SNDAL) is decided on and drafted by public authorities
- October **2000**: Ratification of the Dahir of ONEE WATER BRANCH creation, according to which ONEE WATER BRANCH was officially entrusted with a new mission that of liquid sanitation in cities and centers where ONEE WATER BRANCH ensures potable water distribution
- **2002**: An ambitious program is planned for the **2003-2017** period, along with an investment of **15** billion Dirhams in favor of a population of **4,6** million inhabitants;
- **2005**: The National Sanitation Program (PNA) is developed by the Ministry of Interior and Ministry of Territory Planning, Water and Environment. The Program takes ONEE's own sanitation program into account.

According to the Municipal charter of **1976**, which was amended and supplemented in **2002**, liquid sanitation is a municipality's responsibility.

Municipalities are in charge of deciding the appropriate management form: direct management, or delegation to a public or private operator.

Since the year **2000**, ONEE has been entrusted by the Public Authorities with the mission of assisting with sanitation and wastewater management services on behalf of the municipalities to which it supplies drinking water. To be more precise, an amendment to the Dahir (Royal text), which founded and created ONEE, extended the scope of ONEE's missions and duties to include interventions in the sanitation sector.

ONEE sanitation strategy

ONEE's missions in the sanitation field are:

- To support public health and hygiene by collecting and draining of wastewater;
- To increase the connection rate to the sewerage system;
- To protect the environment by purifying and treating wastewater before it is discharged back into the natural environment;
- To monitor the implementation of sanitation projects;
- To develop and maintain partnerships with suppliers;
- To comply with relevant conditions, whether they be legal, regulatory or subscribed to by all parties concerned.

Sanitation activities and projects in cities and localities include:

- Construction or expansion of wastewater treatment plants
- Rehabilitation of existing connection network
- Extending networks to reach populations with no access
- Constructing transfer and collection infrastructures, such as pumping stations
- Operation and maintenance (OP&M) and equipment acquisition

Financing the sanitation project is comprised of equal financial contribution: **50**% from ONEE and **50**% provided by the municipality. The population has to pay an initial financial contribution in order to be connected to the sanitation network. This initial participation is called the First Establishment Participation, and will be referred to in this document as PPE (Participation au Premier Etablissement).

5 | 4.2.4 Content of public awareness campaigns on sanitation

Objectives

Public awareness activities should be extended to all regions of Morocco where sanitation projects are underway. The mains objectives of these campaigns are:

- To raise up population awareness of the targeted cities and localities, and to underline the importance of sanitation and environmental protection.
- To promote public involvement in sustaining the project. This is achieved through a participatory approach with targeted populations, using dialogue and consultation to further encourage population participation:
  - Financial participation: PPE* and paying invoices
  - Participating in protecting implemented sanitation infrastructures.

Customers have to make an initial payment before they can be connected to the sanitation network. This initial contribution is called the First Establishment Participation, henceforth referred to in this document by PPE * (Participation au Premier Etablissement or FEP).

Participatory approach: Principles and Methodology

To ensure project sustainability, the Office has adopted a participatory approach with the targeted populations and stakeholders. The main objective of the public awareness campaigns is ultimately to encourage population involvement in project design and implementation.

There is a correlation between the public awareness campaigns and the technical project progress. The participatory approach detailed in this section chapter is the same method adopted for generalization of drinking water access projects in rural area.

Themes and key messages

The public awareness activities target both institutional-level communications (campaigns,

media and public relations...), and development-related communications (using dialog to engage stakeholders and promote behavioral change). The key messages (listed below) serve to highlight advantages of sanitation services, which might not be as evident for the general public to comprehend, as would the benefits of water.

- **The benefits of sanitation** in preventing health diseases resulting from untreated wastewater and pollution, in hygiene, improved overall health and comfort etc.
- **Project overview:** cost, construction time, sources of funding...
- **Services offered:** wastewater management
- Population responsibility preserving established sanitation infrastructures and protecting the environment
- **Tariffs:** operating system requirements, tariffs system, payment facilities etc.
- **Invoice:** customer is liable for the invoice amount
- Pollution
- **Preserving hygiene and health:** protecting the body, home, and the environment.

Targets and Stakeholders

The main targets and stakeholders targeted by PA campaigns are as follows:

- **Final targets (beneficiary populations and clients):** men, women, youth, scholars, clients, and the general Public.
- **Intermediate targets:** local authorities, elected representatives, local associations, local decision makers
- **Other potential targets and partners:** regional state department representatives acting in sanitation field areas on health, education, and/or agriculture

PA Campaign: methods, human Resources & communication tools

PA activities are carried out at the central regional and local levels in areas where sanitation projects exist or will be realized.

At the central level, PA activities are managed by the Department of Communication and public awareness in collaboration with all other relevant departments:

- The Department of Marketing and Commerce
- The Department of Sanitation and Environment
- The Department of Exploitation, Operations and Maintenance in sanitation projects

At the regional level, PA activities are managed in coordination with:

- Regional and provincial departments
- The person in charge of communication at the regional level who supervises a local PA team
- Local teams trained in communication and public awareness activities who have mastered the project and the local context;

In the field, PA awareness activities are carried out through a variety of direct means and tools:

- Small group meetings (**5-10** people), using a door-to-door approach,
- Presentations to students in local schools, and to imams in mosques,
- Conducting training, support and assistance to local association and NGOs

Communications and PA tools:

- PA campaigns conducted in local dialects and diffused on TV, radio and public displays.
- A communication package containing:
  - Various audiovisual media such as films, TV & radio spots
  - Printed materials such as brochures, leaflets, banners, flyers and mailings
- Investing in and developing partnerships with regional radio and local press

PA Campaign: communication tools

5 | 4.2.5 Key Achievements

ONEE is currently a major player in the sanitation sector, operating in over **82** municipalities and cities and providing wastewater management services to a population amounting to **3** million inhabitants. It invested more than **5.7** billion Dirhams during the **2001-2011** period. Furthermore, ONEE has successfully achieved the implementation of:

- A sewerage network spanning over **6000** km
- **46** wastewater treatment plants
- Increasing wastewater treatment capacities from **6%** to **25%**
- Increasing the rate of connection to the sewerage network to **73%**

5 | 4.2.6 Challenges and Future Prospects

Public awareness and public involvement in sanitation projects

The Office will increase its interventions in the sanitation field over the **2012-2016** period by investing approximately **6.5** billion Dirhams to complete ongoing work and to introduce new sanitation projects to serve **87** cities and municipalities.

In supporting this ambitious program, ONEE, its partners and funders have recognized the crucial role of communications and public awareness campaigns in promoting local ownership and sustainability of sanitation facilities. There is also a consciousness of the need to improve the Communication department's abilities to assist, participate in the training and capacity building of the ONEE's PA Actors at the central, regional and local levels by recruiting both national and international technical assistants and local public awareness teams.

5 | 4.2.7 Best practices and lessons learnt

In the sanitation field, we identify the following difficulties and obstacles that have hampered project success and profitability:

- Low PPE payment rates (PPE: First Establishment Participation) to be connect to the sewerage network
- Reluctance to pay connection charges, namely in newly equipped areas
- Lack of understanding of the importance of the PPE contribution?
- Under use of wastewater collection infrastructures and sewage treatment plants; network clogging issues, and/or treatment failures.
- Illegal connections found in some areas managed by ONEE.

To address these problems, many actions have been taken at the technical, commercial and marketing levels. Furthermore, PA campaign must also be adapted to include solutions to these issues. This includes:

- Identifying what prevents successful population connections to the sanitation network
- Defining action plans to improve the connection rate of connection in newly equipped areas.
- Reducing the FEP (PPE) amount by more than **50%** in **2003**.
- Carrying out public awareness campaigns to ensure effective communication
- Promoting population engagement as a key factor for project success by
  - Organizing regular meetings with the population, associations, municipalities and local authorities to discuss how to improve the rate of access
  - Organizing events on a regular basis rather than sporadically
  - Collaborating with the main partners and relevant associations, local representatives, municipalities and local authorities
- ONEE ensuring the alignment, harmonization and coherence of technical and sanitation project progression with public awareness activities.

ONEE's activity in the sanitation sector has positively and greatly impacted hygiene and public heath, namely by improving child and family health. Indeed, surveys have revealed a significant regression of diseases such as viral hepatitis, dysentery, conjunctivitis, trachoma, attributable to the availability and quality of water and sanitation services.

Lessons learnt:

The effectiveness and sustainability of ONEE's sanitation projects will largely depend on the Department of Communications' and regional communication teams' ability to play their strategic role in supporting sanitation projects from design to implementation and beyond. A further prerequisite for success will be the how much importance ONEE gives to communication

ONEE's Communication teams (central and regional) have been redesigned to include an international communication expert, three national experts and local teams of sociologists and PA activity facilitators. This has lead to a structure which provides a national and regional coverage:

- **ONEE's internal human resources from the Communication and PA department and all other internal departments involved**

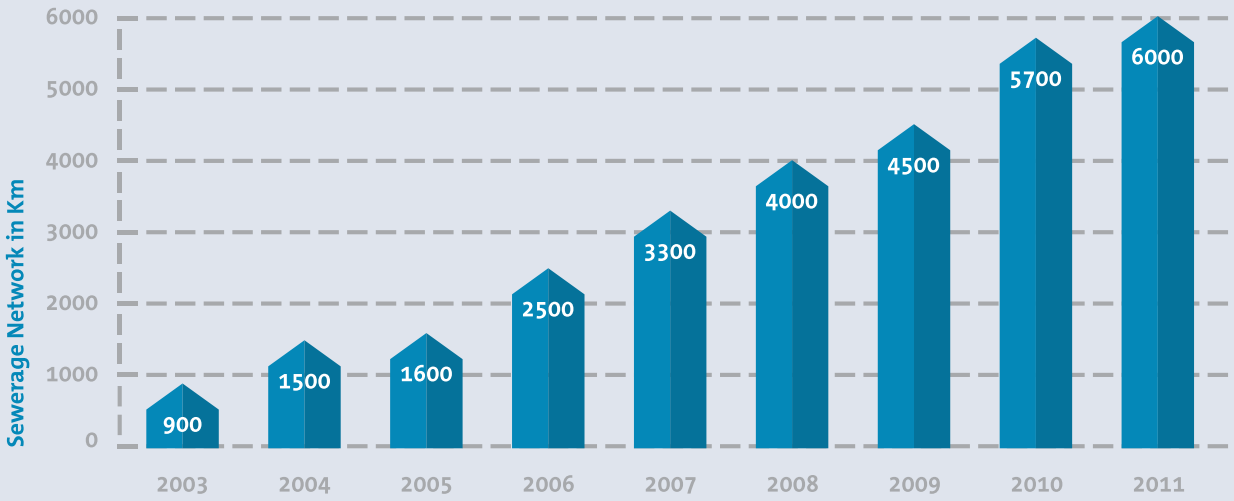


Figure 7: Evolution linear sewerage network (Km) operated by ONEE-Water Branch

in sanitation projects (Commercial and Marketing, Sanitation and Environment, OP&M), as well as a network of regional communication officers. This group is in charge of

- The communication strategy, communication plans and operational planning
- Coordinating the entire process (namely the financial, administrative and technical aspects)
- Capacity building and training the parties involved
- Post-evaluation and review

- **An International Communication Expert** that assists the communication department in
  - Developing the communication strategy and operational planning
  - Breaking down the annual action plan into regional and local plans
  - Preparing the overall methodology for PA team interventions
- **Three national communication experts,** each acting in one of the country's three geographic regions (northern, central and southern). Their work consists of
  - Managing the implementation of regional action plans
  - Overseeing and developing partnerships with municipalities to support ONEE's regional directorates
- **Three social animation and PA activity facilitators** to accompany and work with each national expert
  - In charge of implementing PA action plans at local level

5 | 4.2.8 Conclusions and recommendations on sanitation projects

To date, ONEE has been a major player in the sanitation sector, operating in over **82** municipalities and cities and providing wastewater management services to a population amounting to **3** million inhabitants. It has substantially increased the rate of connection to **73** %, established a vast sewerage network spanning **6000** km and has improved overall waste treatment capacity from **6**% to **25**%.

At the regional and local levels, there is a real need to develop and strengthen PA campaigns in order to stimulate public involvement in sanitation project management. A participatory approach to public awareness, and the use of relevant communication tools (such as film, door-to-door visits, small-group meetings, water and sanitation plants visits) can also help improve population engagement in projects.

CONCLUSIONS & RECOMMENDATIONS

ONEE's efforts and investments over the last four (**4**) decades have contributed to the company's numerous achievements and have helped

position it as a national leader in water and sanitation sector. The following key figures about ONEE's achievements confirm this fact:

- **The national producer of drinking water,** supplying **80**% of national drinking water (approximately **1** billion of m³ per year)
- **The first supplier of drinking water in Morocco:** providing drinking water services to **1.5** million customers located in over **600** municipalities throughout the country.
- **Successfully generalized access to water in rural areas:** providing drinking water to over **12** million rural people by increasing the rural rate of access to **91** %, with **25**% of the population now having connections at home.
- **An active and key player in the sanitation field:** ONEE currently operates in more than **82** cities and municipalities, providing wastewater management services to a population amounting to **3** million inhabitants.

ONEE has set up a future development action plan for the next five years (**2012-2016**), which includes important investments amounting to **27.4** billion Dirhams. ONEE's overall investment is organized around three main strategic objectives:

- **Maintaining, securing and strengthening drinking water infrastructures in urban areas.** Investments will target existing and active drinking water projects in major cities (such as Rabat, Tangier, Nador, Fez, Agadir, Oujda, Marrakech and Laayoune)..Total future investments are estimated at **15.4** billion Dirhams.
- **Generalizing drinking water in rural areas.** ONEE will aim to achieve an access rate greater than **95**% by **2015**, focusing in particular on developing household water connections (rather than standpipes) in response to rural population demand. Total future investments are estimated at **5.5** billion Dirhams
- **Actively participating in the sanitation sector and providing wastewater management services.** ONEE will increase its activity in the sanitation field by investing an estimated total of **6.5** billion Dirhams. This will go towards completing ongoing sanitation projects and to introducing ones to serve **87** cities and municipalities.

ONEE, its partners and its funders have recognized the crucial role of communication and public awareness campaigns in promoting public involvement and population ownership for sustainability of sanitations facilities. Furthermore, in an effort to strengthen the Communications Department capacities at the central, regional and local levels, they also recruited International and national technical assistants and communication experts to ensure successful project implementation.

To meet all its challenges, ONEE's strategy should continue to be centered on a participatory approach to ensure public participation and engagement in projects. It should also continue to carry out PA campaigns and communication activities after the project implementation phase, to encourage better project ownership and improved water usage. Finally, ONEE should also make sure that PA activities are aligned, harmonized and consistent with project progression.

Community-based water management methods should also be increasingly promoted by ONEE. This can be done by investing in training and capacity building for NGOs, DWUAs, population representatives, authorities and municipalities.

There is a real need for a Communication and monitoring committee, operating at the local or provincial level, that could leverage its population proximity to facilitate communication and contribute to project continuity.

Moreover, ONEE should promote synergy amongst all partners working in the rural areas by establishing joint committees in rural municipalities (to include, among others, ONEE, DWUAs, local authorities, the Ministries of Health, Education and Agriculture).

Last but not the least, ONEE should carry out post-PA campaign evaluations to collect best practices, lessons learnt, as well as the mistakes to avoid and areas of improvement. That being said, it is worth noting that measuring the success of PA campaign is rather difficult. Education, awareness and knowledge base increases, cannot be easily

measured without long-term investments, close collaboration of all parties involved— stakeholders, partners, NGOs, associations— and a communication strategy embedded within a global framework (financial, technical, tariffs).

Moving forward, there will be a real need to focus on regional and local PA campaigns aiming at public involvement and local community engagement in the sustainable management of water and sanitations facilities.

ONEE will continue to take a participatory approach in its strategy to ensure public participation and involvement. This community-based water management method will be increasingly promoted by ONEE through 1) investments in training and capacity building for NGOs and Associations; 2) innovative, successful public private partnerships (PPP); and 3) strengthened partnerships with all stakeholders, namely municipalities, local communities, local authorities and associations.

Finally, ONEE's experience in the field has revealed that there is a real link between public awareness and public participation in water and sanitation projects—as is summarized by the expression "Be informed to be involved". Therefore, taking a participatory approach, which combines wide-reaching public awareness campaigns with a targeted communication strategy is the key to successfully ensuring that the public and all stakeholders' are engaged and participating in the sustainable management of our water ressources.

Annex 1: Key figures (Evolution Between 1972 and 2010):

Over the last **4** decades important investments have been undertaken to ensure basic infrastructure in terms of drinking water and sanitation. The evolution of the key indicators since **1972** date of foundation of ONEP hereafter shows the efforts made in this field.

Drinking Water Production and Supply	**Unit**	**1972**	**2010**
Equipped Flow	m3/Second	**3**	**51.6**
Drinking Water Production	Millions m³	**80**	**901**
Drinking Water Treatment Plants	Unit	**9**	**69**
Distribution Centers	Unit	**61**	**574**
Customers	Unit	**65000**	**1468818**
Access Rates in Urban areas	%	**50**	**93**
Access Rates in Rural areas	%	-	**91**
Liquid Sanitation			
Waste Water Treatment Plants	Unit	-	**41**
Intervention Centers	Unit	-	**79**
Population	Millions Inhabitants	-	**3**
General Data			
Turnover	Millions de DH	**25**	**3645**
Investments	Millions de DH	**60**	**4017**
Staff/Employees	Unit	**1537**	**7229**

6 Public Awareness in the Water Sector: Experience of South Lebanon Water Establishment

Mrs. Nidal Hachicho

South Lebanon Water Establishment

Abstract

Nature conservation is the practice of protecting and conserving natural environments at different levels: governmental, organizational, and individual. This is not only for the good of the environment, but it is also for the sake of humanity, as a whole. In general, three intertwined aspects affect nature conservation: education, ethics, and environmental legislation. Each of these aspects is crucial to determining personal behaviors and values, as well as national-level environmental decisions. So, in order for nature conservation to become a successful reality, it is imperative for societies to support each of these aspects that will guide and dictate environmental decisions. However, it is worth noting here that public awareness and education remain the most influential means of enhancing nature conservation, especially when it comes to the preservation of one precious resource in particular: water. In this context, public awareness of water conservation is essential to building a foundation for education on water conservation efforts and water pollution control. It is also critical to increase people's knowledge of water use, water resources, as well as the need to conserve water with the aim of changing behaviors and attitudes to better manage the resource. It is well known that the more people know about their water resources, the more they will contribute to conservation, which is a cost-effective tool that allows protecting current water resources and securing future water needs. However, conducting an effective and sustainable public awareness campaign in the water sector is not an easy task. It requires several demanding steps. These include: getting information regarding the actual situation, analyzing the problem, formulating the key question, fixing the goals of the campaign, and defining the target group, the message, and the strategy, choosing the necessary instruments, defining the time table as well as the budget and lastly evaluating the final outcome.

6 | 1 Introduction

Nature conservation is a practice of protecting and conserving the natural environment on the different levels: governmental, organizational and individual for the good sake of humans as well as the natural environment. It is well known that nature is being ruined because of the continuously growing pressures of technology and population. In general, nature conservation is affected by three intertwined aspects: education, ethics and environmental/ nature legislation. Each of these aspects is crucial in determining the personal behaviors and values as well as the national-level environmental decisions. So, in order for nature conservation to become a reality, it is imperative for societies to enhance each of these aspects that will, jointly, guide and dictate environmental decisions. However, it is worth noting here, that Public Awareness (PA) and education remains the most influential means to enhance nature conservation namely when it comes to water conservation whereby PA is critical to increase people's knowledge of water use, water resources as well as and the need to conserve water with the aim of changing their behaviors and attitudes with respect to water use and management. This report will address the issue of public awareness in water sector, its importance and methods.

6 | 2 How Serious Is The Water Problem?

Loss of biodiversity, waste production and air pollution are some crucial topics in nature conservation; yet, one of the most important topics to address, will remain water resources protection and water pollution.

The world health organization stated in March **2009** that "water is an essential resource for life and good health. A lack of water to meet daily needs is a reality today for one in three people around the world". This statement of the WHO describes the current water condition in the MENA region in particular and in the world in general whereby water problems are getting worse due to population growth and the associated increasing needs for water resources in households, agriculture and industry...

According to the United Nations, in the last century, water use has been growing worldwide at more than twice the population growth rate. In fact, every continent is affected by water scarcity in a way or another: about **1.2** billion people live in regions of physical scarcity, **600** million people are actually getting closer to this situation while another **1.6** billion people are facing economic water shortage (resulting from the lack of infrastructure that permit countries to take water from rivers and aquifers).
Water scarcity could be identified as both human-made and natural phenomenon. Although there is fresh water for around **6** billion people, yet it distributed unevenly and unsustainably managed (waste, misuse, pollution...).

This problem of water scarcity becomes more pronounced in the MENA region since large areas have semi-arid to arid climatic conditions. For instance, while the region is home to **6.3** percent of world's population it has access to only **1.4** percent of the world's renewable fresh water. This explains why the average water availability per person in the MENA region is **1200** m^3/person/year whereas in other geographical regions it is about **7,000** m^3/year.

In order to realize how severe the water problem is, it is necessary to appreciate the huge impact water has on our daily lives. For instance, lack of access to safe, adequate water restricts our ability to produce adequate food to earn income or eat as well as our ability to operate industries and supply energy. Further, it will become more difficult to diminish the impact and the spread of diseases because of the lack of proper hygiene and sanitation.

6 | 3 Necessity Of Water Conservation Awareness

It is well established then that freshwater security has been continuously recognized as an important problem resulting from the ever-increasing use of limited resources accompanied with decreasing availability as a result of pollution, poor management and deforestation among others... hence, managing water demands and use as well as increasing the efficiency of exiting water usage will be the key to attain water sustainability.

This situation necessitates the adoption of Public Awareness programs that target water conservation to promote good understanding of the need to use water efficiently and to increase people's knowledge of water use, water resources and the need to conserve water with the purpose of endorsing change in behavior and attitudes toward water management and use. It is well known that the more people know about their water resources, the more they will contribute to water conservation which is a cost-effective tool that allows protecting current water resources and fulfilling future water needs for people.

6 | 4 How To Conduct Public Awareness For Water Use?

In order to maintain an effective and sustainable public awareness campaign, three backgrounds of experts should be involved: an economist, ecologist and a social expert. In addition, ten important steps should be followed:

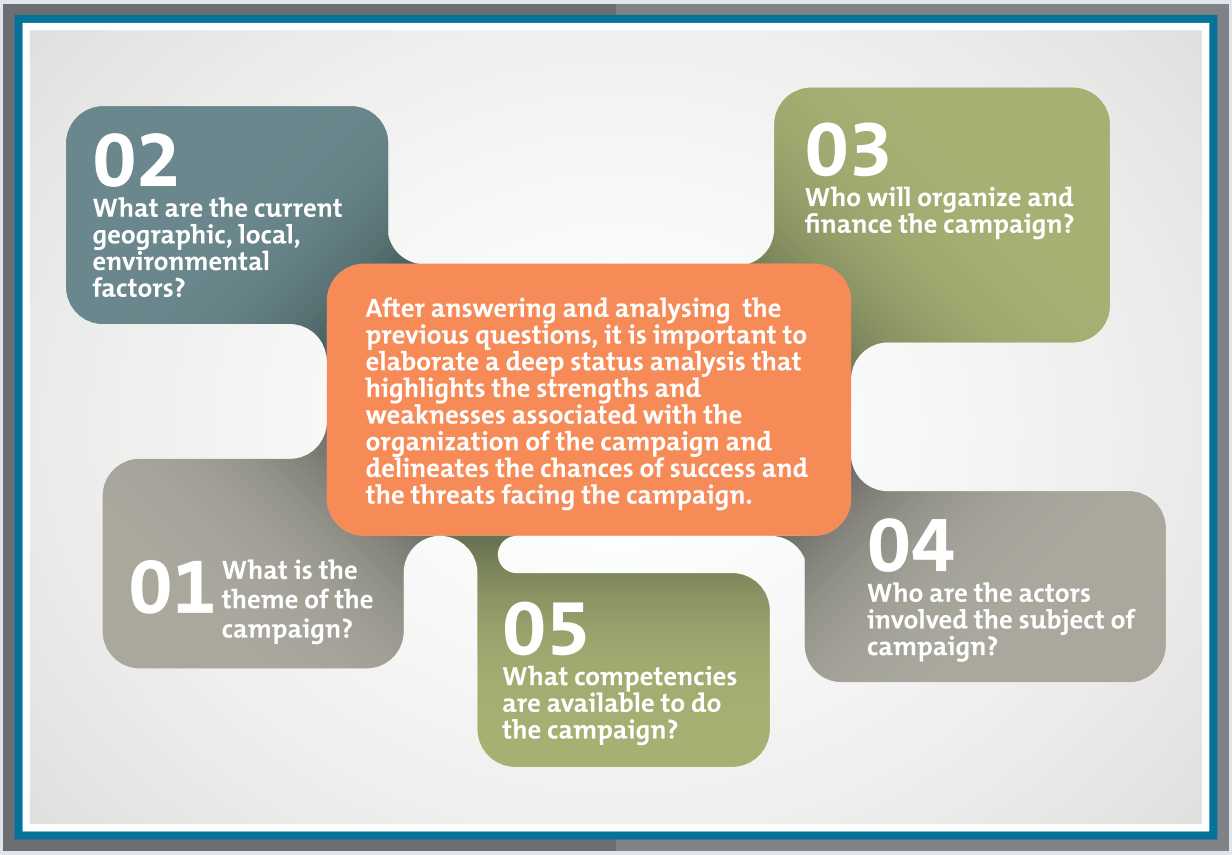


Figure 1: Important questions to ask while gathering information

6 | 4.1 Get the information

It consists of acquiring details and data about the current situation and knowing local political, cultural, legal, environmental and geographic conditions (Figure-**1**).

An example that fits well here is the experience of South Lebanon Water Establishment in the installation of water meters in Hilaleyeh, near Saida. The establishment has first performed a pre-evaluation of the area through questionnaires whereby people were asked about their thoughts regarding water in the area, their responsibilities toward water, about their water consumption, their water consuming activities... Following this step, the establishment has chosen a team leader who would be responsible for the preparation of the campaign, working on the project marketing, distributing brochures and posters to make the installation of meters smooth and acceptable by the residents.

6 | 4.2 Analyze the problem

Investigate what's causing concern, and break the issue down into its components in order to delineate the causes of the problem that need to be targeted in the PA.

This can be done by gathering information from different sources and discussing the problem with others. A comprehensive understanding of the situation is crucial to the realization of a good community education project.

In order to better identify the problem or the issue, it is essential to explore, discuss, investigate, analyze and assess data and information from different stakeholders. And always it is necessary to remember:

- To learn what have been previously done about this problem: what gave good results, what didn't, and for what reasons?
- To determine the direction/focus of the project. This will be changed or further

Figure 2: Examples of brochure distributed in Hilaleye

confirmed when collecting more information/ data in the next steps.
- To take into consideration and re-examine this step constantly while designing and establishing the community education project

Continuing with the SLWE experience with meters installation in Hilaleye; the SLWE, after performing pre-evaluation, has analyzed the data and information gathered from the questionnaire. SLWE found that people did not know about meters, whether it is fair or not, they did not know how much they spent water per day.

6 | 4.3 Formulate the question

Summarize the question whose answer leads to solution:
- What is the problem or the thing causing troubles
- To what extent is this thing is causing concern/worries within the community?
- Does the community recognize this as a problem?
- What are the causes or reasons leading to the problem?
- How can we endorse community discussion regarding this issue?
- To what extent do we know about the problem/issue? What has been previously done? Who has been involved?
- What do we want to accomplish? What can we accomplish?
- Can we delineate our wants in the form of short, medium and long-term goals?

6 | 4.4 Fix your goals

Delineate the outcome perceived from the community education project. Identify this in the form of a goal, educational objectives and desired outcomes. A good way to do this is by asking the following question:
- What are we planning to accomplish through this education project?
- What are the particular educational goals of the project in terms of skills, knowledge, practices, standards and manners? Are these goals measurable?
- Do we have to consider short-term and long-term objectives for this issue?
- What are the most important messages we want to communicate?
- What effects do we perceive from the project?
- What are we going to do with these effects/ products when the project is complete?
- How will accomplishing our objectives aid in resolving the problem/issue?
- What obstacles might hamper the realization of our objectives?

In PA campaigns targeting water conservation, normally the objectives will be:
1. To aid the target group to comprehend the necessity for water conservation in the potable water supply sector and that they can play a part in PA to society as a whole
2. To permit stakeholders use water in an efficient way at all phases from capture to consumption in order to promote change in attitudes and behaviors with regard to water management and use
3. Increase knowledge of water resources (IWRM).

For instance, when SLWE tried to install water meters in Hilaleye, it also tried to increase

knowledge of water conservation whereby brochures (Figure-**2**) were distributed to let the public know about the necessity of water saving that would result in saving money.

6 | 4.5 Define your target group

Category	Methods
1. Youth	• Material for school lessons • Excursions to pumping station • Painting or writing contest
2. Women	• Brochures • House visits
3. Municipalities	• Beach cleaning day • Information desk • Brochures
4. Large Consumers (agriculture & firms)	• Face to face talks • Information events
5. NGOs	Joint events Contribution on panel discussions

Table 1: Different target groups in PA campaigns

It is necessary to explicitly delineate the target group and gain an understanding of their current knowledge, attitudes and practices skills and behaviors concerning the issue and to decide who you want to reach. It is always important to remember the following:

- Characterize your target group in terms of age, gender, culture, locality, interest and occupation... These can have a great impact on the current skills, knowledge, behavior and manners of your groups.
- Investigating your target group does not have to be complex: it might merely consist of delineating a focus group or conversation with a representative sample of people (e.g. **5-10**).
- Be conscious of the potential negative impacts of the project (risks, threats...) on the target group. Always try to turn these into benefits.
- Seek to find a motivating factor that could push the target group to be on side
- It is important to realize that Public Awareness would be initially directed to main target group who will then help in encouraging the public; in water sector the main target groups are five, as summarized in Table **1**.

1. **Youth**

Typically, we target young children in schools since they can influence their parents. In particular, they are good source of PA to illiterate parents. Further, PA to children can lead to solve local water problems by changing the values and attitudes of the community/neighborhood in which the children live/interact. PA to youth can be done through several methods:

- Conducting presentations in schools showing the cycle of water for example to show them how water come and why it is important to protect water.
- Making calculation exercises showing how much we use water in our daily life like brushing teeth, washing cars and suggesting methods to reduce water consumption like using cups while brushing, using the small buttons of flash toilets instead of the large ones all the time, having a shower instead of filling the bath...

A good example that fits here is the experience of SLWE with The World Water Day For Youth whereby SLWE representatives visited schools and asked students about their habits regarding water consumption: whether they use a cup when brushing teeth or whether they leave the faucet open... then the SLWE representatives performed a presentation to show students how water reach their homes and how water is treated before reaching their homes. Then students were given exercise to show them how much water they spent in their daily life and that miniature changes in their behaviors could make a difference and result in huge water savings. Further, students' parents were also invited to attend the session in order to gain two target groups.

2. **Women**
   It's important to have women as target groups since they are considered managers of the households and hence can lead to enhanced family social and economic development. Further, when it come so illiterate people, it is necessary to adopt techniques that depend on graphics information materials and inter personal communication in order to effectively convey the message and reach this group. For example, it might be needed to visit these people at home and distribute token gifts as well as brochures (Appendix A) with illustrative examples that convey the message without using words.

3. **Municipalities**
   PA to municipalities could be performed through various ways such as conducting presentations to stakeholders and distributing information guides in municipalities. Municipalities in agricultural areas could be the most concerned in this regard, whereby they can help in showing farmers how to save water while watering plants. Further, activities and events, supervised by municipalities, could be done to have all people in the area participate and feel the spirit of collaborative work.

4. **Non Governmental Organizations (NGOs)**
   Conducting PA to NGOs, like professional associations and private companies, is important because they will assist in promoting it to public and in promoting a socially responsible image in joining events.

5. **Large consumers or stakeholders**
   This group consists of farmers, industrial companies... it is necessary to show them the impact of potential cost savings on competitiveness and product prices in order to convince them to change their behaviors in using water to adopt conservation and efficient use.

   Hence, individual visits should be made to the different consumers, specifically water using industries, in order to conduct audits and show how water can be saved. Brochures could be distributed to farmers in order to endorse grey water reuse and promote changes in watering behaviors such as watering in the morning, using trigger hoses and adopting drip irrigation to water plants.

6 | 4.6 Define your message

Choose aims and key message for promoting PA which will serve as the guiding spirit of the campaigns; some useful ways to define a successful message:

- Choose well positioned and appealing messages. (see figure **3**)
- Make a link between the message and religion, depending on the circumstances
- Choose a message that is easy to implement in the water sector (also see figure**3**)
- Use arguments of status and convenience
- Investigate locally significant values and try to link them to the message which facilitates the reception of the campaign "وفر المي اليوم بتوفر الفاتورة بكرا"

The message may ask the volunteers to use try out the behaviors changes suggested in the campaign, for example using a new type of flash toilets, then they are asked to review the changes and evaluate whether they are feasible on the long terms or need some adaptation.

Figure 3: Example of message

In general, the message needs to be linked to water conservation in the subsequent order of objectives:

1. Creation of interest and awareness
2. Motivation and persuasion
3. Education to motivate people on water conservation
4. Inducement of behavioral changes through, for example, the installation of meters which encourage consumers to cut down their water use
5. Stimulating actions
6. Water quality

6 | 4.7 Define the strategy

Determine the steps to follow in order to achieve the goals of you campaigns, i.e. the issues to raise with each audience.

The strategy of the campaign must delineate the following issues:

1. Reach of the campaign: how many persons will be reached by the campaign
2. How is the content: is it complex or simple, how much of it will be conducted to the public
3. To what extent will the public be involved in the activities of the campaign
4. The impact that the target audience has on the campaign

After delineating the strategy, it is necessary to determine the mode of the methodology which will be one of the following (Table-**2**):

Mode	Characteristics
Market mode	Simple content, large reach, low level of active public investment and low level of audience influence on the content It includes celebrating an event to gain the attention of media using posters, flyers, TV channels...
Educational mode	Relatively complex content, medium reach, high level of public activity and low to medium level of audience influence It consists of involving children in promotion and actions, training motivators and educators, public lectures and educational courses
Social local mode	Medium level of contents, low reach, high level of public activity and high level of audience influence on the content

Table 2: The different modes of methodology in PA campaigns

6 | 4.8 Choose your instruments

It is necessary to take into account who your target group is and hence determine the most suitable, efficient and useful techniques to adopt in order to accomplish your goals and attain the outcomes with this target group in particular (Figure-**4**).

For example:

- If the educational goals are mainly related to influencing knowledge and understanding, then it is best to adopt informing techniques.
- If the goals are related to improving the skills and manners, then it is best to adopt demonstration techniques.

Yet, it is essential to take into consideration the following:

1. People learn in different ways, hence always adopt various methods to enhance your effectiveness. For example, when the target group is the youth or the children, the adopted instruments should be simple and easy to understand. For instance if the daily need of water is around **180** L, a child cannot imagine the volume, yet when he sees it in terms of bottles, he can.
2. Establishing community education projects that adopt methods relying only on "information giving" rarely leads to long-term effectiveness

3. Your budget will affect your decisions on what methods you may adopt, because for examples some instruments are expensive. Examples of instruments used in PA campaigns taken from the experience of water establishments are given in Appendix B

6 | 4.9 Define your time table and funding

It consists of delineating the time the company needs to perform each step, who will be involved in it, when and what resources will be needed to accomplish it. This step is considered important because it facilitates tracking the process by the experts in charge.

In addition, the needed financial resources for each step must be carefully delineated in order to better determine the total budget that should be allocated for the campaign.

6 | 4.10 Evaluate

Evaluating the PA campaign is about monitoring, assessment and disseminating the results. In order to best evaluate the PA, it is necessary to collect as much as possible information and keep records that help to show the development of the campaign and the accompanying problems and accomplishments towards the set goals and objectives. In order to conduct an effective evaluation, several questions should be answered such as:

- What are the outcome/results and lessons learnt from the PA and what are the next steps?
- Have we met our objectives?

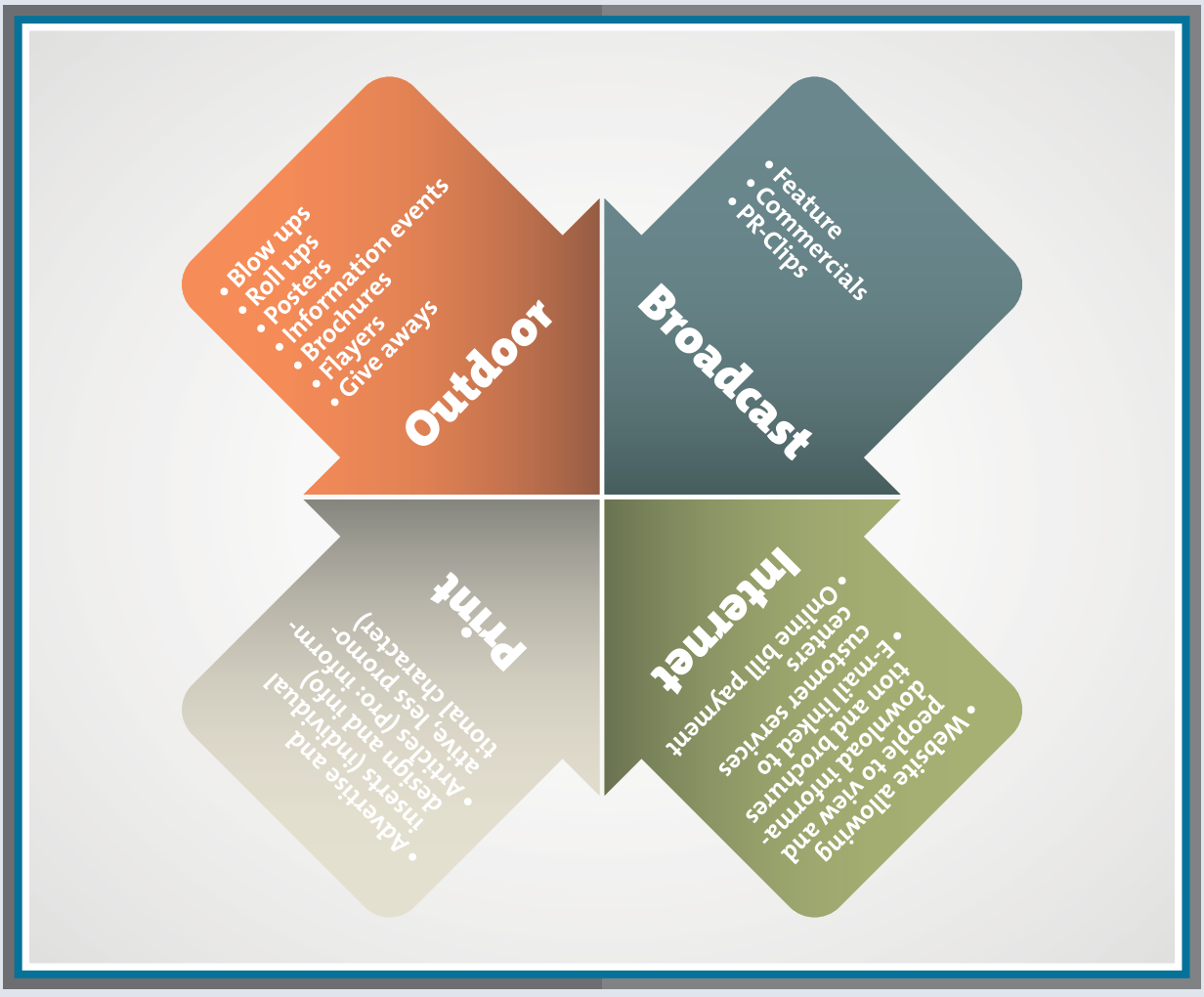


Figure 4: Various instruments used in PA campaigns

- Did the money invested pay off? Was it worth it?
- Did the lessons reach target audience effectively?

After answering all of these questions, it is necessary to incorporate the obtained information in the form of an evaluation report with useful analysis of the results in addition to graphs and number.

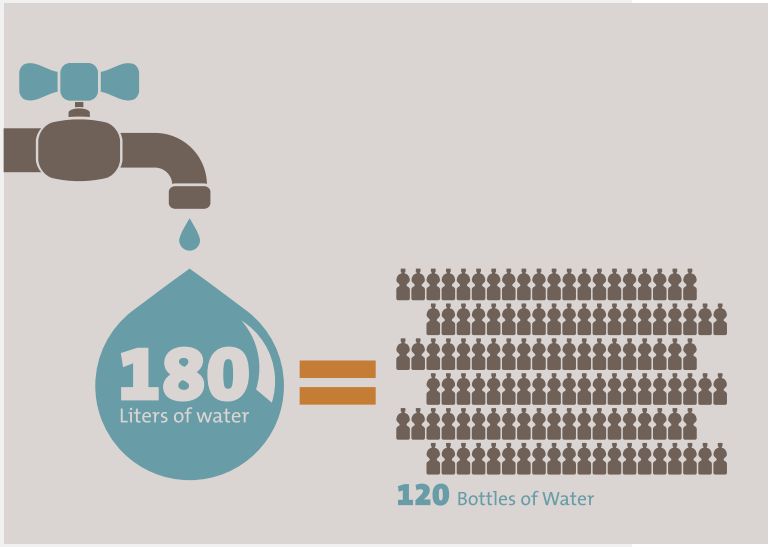
The evaluation step is perhaps the most difficult step in any PA campaign which explains why it is usually left out of many projects. Yet, it is very important because it can:

- Help in making recommendations and decisions about future directions.
- Delineate the weaknesses and strengths of the project
- Allow good judgment about the worth of the project
- Measure the satisfaction of target group and stakeholders
- Verify the level of attainment of the objectives
- Monitor and assess performance

It is important to note that there are two different types of evaluation: Quantitative and qualitative Evaluation

6 | 4.10.1 Processing or qualitative evaluation:

This type of evaluation procures information about the execution as well as the development of the project/campaign. It basically consists of inspecting, examining, describing and documenting the different activities or steps of the project. This is considered the most common method for evaluation because it is always necessary to know how much people was reached and what been delivered.



6 | 4.10.2 Impact or quantitative evaluation

This type of evaluation consists of a quantitative assessment that reviews the overall effectiveness of the project in accomplishing the previously determined goals and objectives. Normally quantitative evaluation necessitates planned evaluation design to help in measuring the impact over time and hence delineating whether that impact was the results of your project. Impact evaluation generally necessitates considerable expertise and resources especially if experimental designs are involved.

6 | 5 Conclusion

It has been shown that PA campaigns are valuable for increasing people knowledge about water and its importance as a natural resource. The different steps needed to follow while implementing PA campaigns were also presented. Yet, it is worth noting that workshops and training courses targeting decision makers and water establishments will always be essential to raise awareness and to build a foundation for nature and environmental education on the water conservation and water pollution control. These workshops and courses, such as those held under the umbrella of ACCWUA in collaboration with GIZ, are needed to introduce different techniques of planning, design, management and implementation of a professional public awareness, as well as to raise awareness on safe water resources, adequate sanitation, wise management of water resources, water scarcity, water degradation and the resulting imbalance between availability and demand, climate change.

Appendix A examples of brochures to people in house

Appendix B- Real examples from water establishments

Blow ups:

SLWE blow up

Posters:

SLWE Poster on water saving

Roll ups:

Roll up´s on water saving

Information events:

Examples on information desks

Brochures:

SLWE brochures

Flyers:

SLWE flyers

Give away:

Brochures:

SLWE stickers

Brochures:

Jordan Water Website: Miyahuna

7 Management of Water Supply Services in Rural Areas in Morocco

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Office National de l'Electricité et de l'Eau Potable (ONEE)

ABSTRACT

Morocco has recently made great efforts to increase access to drinking water facilities for its rural population. The access rate reached **92**% by the end of **2011**, representing **12 400 000** inhabitants. In the last few years the annual investment has increased from less than **200** million Dirhams (about $**24**M) in **2002** to more than **1.2** billion Dirhams ($**143**M). However, it is still necessary to set up new projects that will increase access to drinking water, as well as ensuring the sustainability of these water services, which is now the ultimate goal.

The government has played a major role in implementing projects and setting up new drinking water facilities in rural areas by adopting a participatory approach as a prerequisite in order to ensure sustainability of those facilities. This helps organize and raise awareness in the population such that they will contribute to developing and sustaining their own areas. A guide has been prepared in order to monitor this approach and define the several steps of social animation:

1. The goal during the first step, which is planning phase, is to inform and raise awareness with local authorities in each province and their municipalities to encourage mutually beneficial partnership agreements (between municipalities, beneficiaries, the Office, and benefactors)
2. The second step is to launch social animation campaigns aimed at informing the local population about the project, and to raise awareness about water, health, hygiene, participation, and the involvement of the different groups of users (men and women). These campaigns should illustrate to the local population the importance of their involvement in the project, and should explain their responsibilities regarding ownership of the facilities (they are considered as belonging to the local population, who must maintain them). Alongside the collection of contributions, these campaigns aim to define the needs and expectations of the beneficiaries, and to highlight social maps, which are necessary for the implementation of the serving network
   Social animation, as well as being an occasion to discuss the best approach to service management, is also an ideal opportunity for the formation of the committee that will be responsible for this management.
3. To convince the population of the benefits of self-management, and help them set up user associations to manage the water services.
4. To organize training sessions for the user associations in which special skills are taught (operating, maintenance, and hygiene)
5. To monitor, track and evaluate reactions and reports.

One of the oldest and most effective ways in which rural communities have self-managed their drinking-water supply is through the support and supervision of local institutions and elected authorities.

In the last few years, the National Office of Electricity and Drinking Water, as the interlocutor for Water Supply in Morocco's rural areas, has launched many initiatives to promote self-management, and has improved local training programs for future drinking water service managers. Since **2004** they have also adopted programs to help organize partnerships between consumer associations in rural areas.

The oldest way of managing water services is that of user associations. User associations ensure the sustainability of the water services and allow the Office to reduce direct management and intervention, especially in isolated areas, which require more human resources and material means to maintain.

The Office contributes in many ways to maintain this management practice and ensure its continued effectiveness, including routine evaluations as means of determining the needs of individual projects.. In all, their efforts have resulted in the growth of more than **400** partnerships with associations representing more than **200,000** beneficiaries.

In order to form user associations, the Office provided training programs in the administrative, financial and technical aspects of drinking water service management. First launched in the summer of **2005**, **25** training courses have been organized as of the end of November **2012**, with more than **700** participants representing **330** associations, more than **70** municipalities and **900** keeper managers.

These courses are considered a precious opportunity for all the participants to exchange and discuss their different views and experiences.

In addition to these training sessions, participants are provided with practical guides to drinking water service management in rural areas. The key points of the training can be listed as follows:

1. An overview of the national program for availability of drinking water in rural areas, and the Office strategy of intervention in this sector, with focus on choice of management style and the various constraints to implementing such a program, including limited water resources, difficult tracts (for pipe ways), housing dispersion.
2. A presentation on availability of drinking water programs in the province, followed by extensive discussions about the more important projects completed or planned for the region.
3. A review of the standard management agreement between the Office, the association, and the community, aimed at demonstrating the commitment of Contracting Parties to the terms of this agreement.
4. Workshops on many topics related to the technical management of the drinking water service (equipment management, water quality monitoring, autonomous sanitation and pumping plant, and management for associations without structural projects based on safe and sustainable water resources).
5. A presentation on managing conflict, focusing on the importance of adopting a participatory approach (as a way to help in the management of these conflicts), followed by a discussion with the participants on the nature of the conflicts they most frequently encounter.
6. A lecture on administrative management, including the internal management of an association (ordinary, general and exceptional meetings - Basic Law and the rules of procedure)
7. Workshops on financial and business management, including the cost of water, the selling price, the budget preparation and managing subscriptions.

8. A presentation and workshop aimed at simplifying the application process for government funding.

In summary, the intended purpose of the National Office of Electricity and Drinking Water in adopting and encouraging this participatory approach to rural self-management is to establish a more proactive and progressive concept in rural development. It also intends to ensure that all stakeholders, beneficiaries and project implementers are involved in the decision-making process on matters financial and managerial.

To read the complete reader in Arabic, please go to page **124**.

8

Project of capacity building in the field of environmental education

Methodology Sheet in Environmental Education

Sallouha Bouzgarrou and Noura Khiari

Ministry of environment and sustainable development

Abstract

This document is made up of a set of teaching notes on environmental education. These have been developed using a methodology that addresses the various components of the project pedagogy. It outlines a series of active steps linking the learner's initial situation, the educational activity and pedagogical approach.
Thus, the present document can be seen as a tool that educators can use to reinforce and raise important environmental concepts and issues in children and young people.

The main objectives of this tool are to:

- Provide teachers and facilitators of environmental clubs with a tool that will assist them in their work,
- Encourage them to use active and effective procedures to disseminate education on sustainability.
- In the long run, to encourage healthy behaviors vis a vis the environment and to underline the importance of striking a balance between requirements for economic prosperity and social development.
- Prepare the public, especially Tunisian children and young people, to ensure an improved environmental future and overall quality of life, by teaching them to become citizens that are responsible and informed about sustainable development.

This tool, developed within a framework of institutional support to environmental education, is also an example of how an educational setting can be exploited to promote sustainable development awareness. Indeed, teachers and facilitators can do so across all levels and disciplines, through their curriculums or through activities in environmental clubs and/or cultural institutions. Finally, the tool can also be expanded and adapted to specific needs through further educator training in science and teaching methods.

To read the complete reader in Arabic, please go to page **132**.

9 A DROP OF WATER... FOR YOU AND FOR GENERATIONS TO COME

Proposal of Awareness Activities and Information Campaigns in schools

Drafted by Saleh Al Hakami

Background

Yemen is a water-scarce country, situated in an arid region with no permanent rivers. The annual per capita share of renewable water resources does not exceed **125** cubic meters (the international average is **7500** cubic meters). This water scarcity has given the natural resource a prominent role in shaping Yemeni consciousness and civilization throughout history. The water shortage problem is worsening day after day, and its impact is being felt, not only on drinking water, but also on development in general, and agricultural activity in particular. Sanaa, the Yemeni capital, along with a number of other cities, is facing this water crisis. As a result, the water sector in Yemen developed the National Water Sector Strategy and Investment Program (NWSSIP). Partners and multi-stakeholders are playing a vital role in water conservation.

One of the interventions is creating water conservation awareness among Yemeni people, where the goal is to encourage proper water usage. Part of this intervention is to plan and conduct awareness activities and information campaigns at girls and boys schools in Yemen. These campaigns are carried out under the title "For You and For Coming Generations", and aim to raise awareness among school children about economical and appropriate water usage through a participatory learning approach. Moreover, a number of Water and Sanitation Local Corporations (WSLCs) have implemented pilot project targeting four schools in two towns, in close collaboration with relevant partners and stakeholders.

6 | 1.1 Concept

Water conservation requires knowledge and methods that must be applied by water users on a daily basis. As a result, school children are the ideal target group in which to instill the importance of water conservation. They can be taught to understand that proper and economical water usage will help them build the best future for themselves, and will secure water availability for coming generations. Children are owners of the future, and are looking forward to good living conditions, in addition to taking care of the next generation. Children can easily learn and put this concept into action. Changing behaviors in school children is a possible process.

WSLCs will plan and conduct awareness activities and information campaigns (AAICs) involving school children and their teachers. WSLCs make a point to coordinate with interested teachers to facilitate AAIC implementation. School children will form committees on water conservation, create posters, participate in competitions, and share knowledge with their families.

6 | 1.1.1 AAICs discuss how a child can:

- Understand and calculate the necessary amount of water for individual and household activities, and the amount of water needed to produce food and amount needed for living requirements. Here, the water footprint approach can be used.
- Use water in a manner that will save water at home (kitchen, toilets and other uses), and in schools, and benefit from understanding the water network at home.

- Report on water conservation (saved amount of water and/or its cost)

AAICs will implement this as a pilot project in four schools in two towns. Of these schools, one is in a mountain town, and the other is in a coastal area. In each town, a girls' school and a boys' school will be selected, with up to **150** pupils participating from each.

Implementation for six months, followed by evaluation, can help to continue and spread the programs within the selected towns and out in to new ones.

6 | 1.2 Target groups

Up to **600** school children actively participated in the awareness activities and information campaigns. Target groups included girls and boys in equal proportion across primary school grades (four to nine years old). Four schools will be involved from two governorates: one in the mountain area and the other in the coastal area.

6 | 1.3 Indicators

- Four schools in two towns with up to **600** pupils involved in this AAICs (follow-up reports)
- Water conservation committees from pupils are established (follow-up reports)
- Awareness materials prepared by pupils and reflected the water conservation. (Observation reports)
- **70**% of involved pupils are practicing learnt knowledge (simple survey)
- Implementation steps
- Awareness expert assist WSLCs to plan for AAICs
- Selection of schools and classes
- Preparing information materials
- Conducting kickoff workshop and training workshops for teachers
- Draft action plans
- Conducting the AAICs
- Coordinating and involving related stakeholders and media
- Collect the best awareness materials in order to use them again in a number of classes at same school.
- Follow up and evaluation

6 | 1.4 Needs

Awareness expert, stationery, costs for workshops, costs for competitions, posters, follow up, and evaluation. These needs can be calculated for budgeting purposes.

6 | 1.5 Output

Conducting the AAICs among school children encourages and teaches them to practice water conservation. Pupils produced awareness materials and report on water saving.
Teachers and WSLCs became experienced and ready to contribute in other schools

6 | 1.6 Outcome and impacts

Behavior changed positively. School children have begun to use their new knowledge by practicing water conservation at school and at home.
Awareness materials produced by pupils are being used in other schools
Reports showed an increased amount of water saving at home.

To read the complete reader in Arabic, please go to page **144**.

Arab Countries Water Utilities Association (ACWUA)

Global Exchange Platform for Water and Wastewater Utilities in the Arab World

The Arab Countries Water Utilities Association (ACWUA) is registered as a Non-Governmental & Non-profit association (NGO), founded in **2006** as a result of an initiative by key water sector representatives in the Arab Region. The Association's first consultative meeting was held in Cairo, Egypt in September, **2006**. The meeting brought together delegates from Egypt, Jordan, Syria, Lebanon, UAE, Palestine, Bahrain, Kuwait, and Oman. On **19**th November, **2008**, in Alexandria, Egypt, the general assembly meeting was held to elect the first board of directors whom agreed to locate the permanent ACWUA Secretariat offices in Amman, Jordan.

On **30** July **2009**, the Arab Countries Water Utilities Association (ACWUA) was officially launched in Amman, Jordan. The celebration was held under the patronage of His Excellency, the Minister of Water and Irrigation of the Hashemite Kingdom of Jordan. Since the Association was founded, it has obtained the support of both the Economic and Social Commission for Western Asia of the United Nations (UN-ESCWA) and the German Cooperation (GIZ). The ACWUA Steering committee was formed during that meeting which was then followed by a series of regional meetings to discuss the establishment of the Arab Countries Water Utilities Association.

Vision

ACWUA, as a regional center of excellence, will partner with water supply and wastewater utilities in Arab countries to provide best practice service delivery to their members.

Mission

The water sector in the Arab region suffers from chronic problems, such as water scarcity, weak water and environmental policies, high investment needs, lack of management and technical capacity, increasing demand due to growing populations, and conflicts. Here comes the necessity to engage professionals in utilities from the Arab Countries in a dialogue that extends across the borders within the Arab World.

- Serve as regional platform for exchange of knowledge and best practice amongst member experts and professionals.
- Develop resources, facilitate training programs, and advocate for professional certification to enable member utility staff to perform their duties in a professional, reliable and cost-effective manner.
- Promote standards of performance for the governance, management, operation and maintenance of water supply and wastewater utilities.
- Support the interests of ACWUA members including the provision of advice and consultation in water legislation, policies, and sector management and reform.
- Develop, promote and disseminate publications and other knowledge products to meet the needs of members and other regional professionals.

Training

In close cooperation with several actors and partners in the Arab region ACWUA is providing training programs for water and wastewater utilities at different working levels. The programs cover institutional, managerial, tech-nical and financial topics at water and wastewater utilities. Based on ACWUA's objectives to serve as a regional platform for exchange of knowledge and best practice and to facilitate training programs ACWUA is building up a regional pool of Arabic trainers to address the needs of the various trainees.

The WUP-TRAIN program is implemented with GIZ, see next page.

www.acwua.org
www.acwua.org/sites/default/files/acwua_booklet.pdf

german cooperation
DEUTSCHE ZUSAMMENARBEIT

Implemented by:

giz Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH

Strengthening the MENA Water Sector through Regional Networking and Training (MENA WANT)

Goals. The MENA WANT program enables actors in the water sector to manage water resources by applying principles of good water governance towards integrated water resources management and best practices in order to improve water supply services in urban areas. It aims to strengthen regional organizations in the MENA region to manage regional ex-change networks and knowledge management, and to provide professional capacity-building services.

Partners. The program is implemented with regional organizations, the Arab Countries Water Utilities Association (ACWUA) with their respective national members and partners and the Arab Water Council (AWC).

Components. Four components aim to build capacity in the water sector through a combination of instruments and formats:

1. The regional training program, Improved Water Utilities Performance (WUP-TRAIN), is implemented with ACWUA to address key topics on improving the efficiency of urban water supply.
2. The Public Awareness Dialogue is a platform for experts and practitioners in utilities and ministries
3. The Partner Forum (**2006-2011**) provides a platform for water policy reform and advocacy to develop and imple-ment good water governance principles towards integrated water resources management in the region. Policy-makers and senior officials from government discuss with the private water sector, civil society and academia to exchange of experiences and establish knowledge systems in a series of annual conferences.
4. The international leadership training (ILT) is a **1**-year program in Germany and offered to junior professionals to learn from German experience in the water sector.

E-learning. Supplementary e-learning courses are offered on key topics of Organizational Development for Water Util-ities and Sector Governance in Urban Sanitation, and on Non-Revenue-Water Management.

The WUP-TRAIN component is implemented with the Arab Countries Water Utilities Association (ACWUA) and its regional members' network to assist water utilities which are striving to improve their efficiency, their quality of services and their level of performance.

Components

- Advisory support to the ACWUA technical working group Capacity Building and Training (TWG-CBT)
- A pool of qualified trainers from the region is established and enabled to conduct regional training
- ACWUA offers regional training to its national members on key issues on improving water services in urban ar-eas
- Target groups

- Top management of water utilities and decision makers in the water sector (seminars, workshops)
- Senior to mid-management in water utilities (training, e-learning)
- Senior professionals from government agencies involved in policy formulation, supervision and regulation, ac-ademia and other water sector professionals and practitioners (training, e-learning, training-of-trainers)
- Regional training courses and workshops
- Performance Indicators and Benchmarking
- Effective Leading and Communication in Water Utilities
- Negotiation and Cross-Sector Coordination for Good Water Governance
- Quality Management and Standards
- Sector Governance in Urban Sanitation
- Non-Revenue Water Management
- Water Transparency
- Strategic Planning in Water Utilities

Websites:
www.mena-water.net
www.water-impact-guidebook.net

Reader - Good Practices
Public Awareness Experiences in the MENA Region

Published by
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As at: December **2013**

السـادة / الجمعية العربية لمرافق المياه (أكوا)

تحية طيبة وبعد،

أرجو إعلامكم بأن المصنف بعنوان " Reader- Good Practices Public Awareness Experiencesin the Arab Countries Water Utilities Association (ACWUA) MENA Region"، اعداد:

قد تم منحه رقم إيداع في مركز الإيداع في دائرة المكتبة الوطنية تحت رقم الإيداع المبين أدناه.

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