

Water Operators' Partnership Case Study

GWOPA
Global Water Operators' Partnerships Alliance

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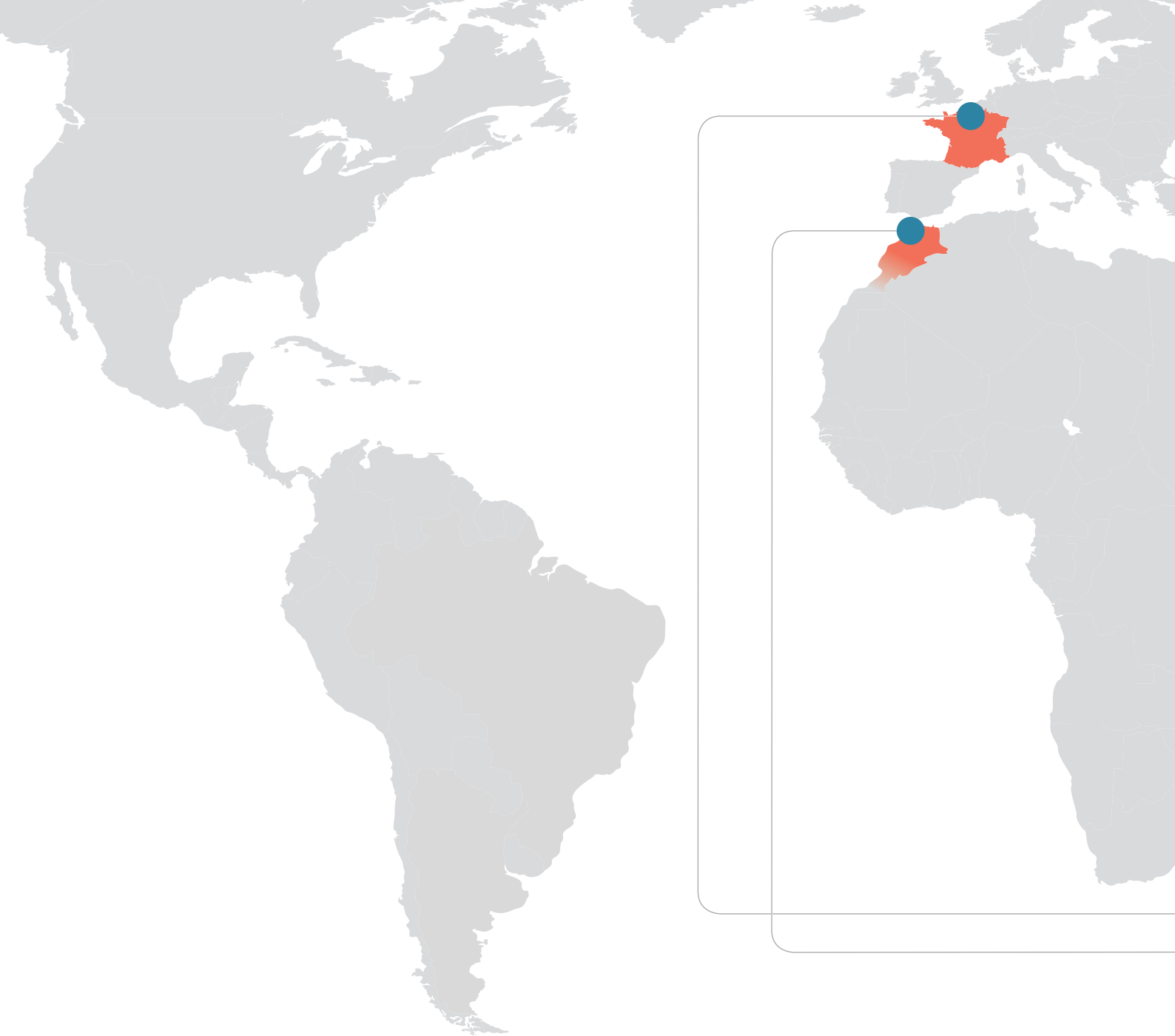
SIAAP
Paris, France

ONEE
Morocco

BEWOP

SIAAP and ONEE

Water Operators' Partnership Case Study





KEY FACTS



Partners

Mentee: *Office National de l'Électricité et de l'Eau Potable* (ONEE, the national water, sanitation and electricity utility, Morocco)

Mentor: *Syndicat Interdépartemental pour l'Assainissement de l'Agglomération Parisienne* (SIAAP, the sanitation utility of Greater Paris)



Duration

2002–2015
(ongoing at time of printing)



Cost

The WOP was funded entirely by the utility partners. SIAAP was able to use the French Oudin-Santini law to mobilize a part of its budget, while the mentee relied on its own funds. According to the partners, this shared financing reflects commitment from both partners and creates ownership in the process.



Aim

Strengthen the technical and organisational capacity of ONEE through training and exchange.

Phase I: Provide technical support to the Moroccan utility as it takes on its new sanitation mandate.

Phase II: Make targeted improvements in key areas identified jointly by WOP partners, such as water quality control and safety and hygiene.



Approach

Phase I: Knowledge transfer on sanitation operations from mentor to mentee, through frequent exposure missions and training for technicians and managers.

Phase II: A broader partnership with more improvement tracks and driven more actively by the mentee utility. Knowledge sharing between professional peers on thematic areas of expertise.



Results

An estimated 70 technicians and engineers from the Moroccan utility were trained by SIAAP between 2002 and 2007, contributing to ONEE's successful transition to sanitation service provision. Since 2008, more targeted objectives linked with safety, quality control, wastewater treatment and communications have been set, with implementation ongoing.

Overall, the WOP has:

Developed the skills of ONEE staff being redeployed to sanitation services

Facilitated a detailed assessment of needs to improve the mentee's performance

Transferred expertise and allowed for a decentralisation of new skills within ONEE



Success factors

Building trust: a common commitment to the partnership's solidarity principles and demand-driven objectives from the onset helped build trust in the process and between partners.

Partnerships between professional peers: the WOP allowed for the 'knitting down' of relationships to the individual level,

where professional peers established their own direct communication and mentorship relationships.

Partner readiness: the mentee partner came to the WOP with a clear understanding of its needs, the strong commitment of its managers, and the ability to contribute financially to the partnership.

Flexibility within a clear Framework: clear targets defined through a formal agreement provided direction for the collaboration while leaving vital space for spontaneity, flexibility and adaptability.



Challenges

Experts availability: SIAAP experts had to balance their time contributions to the WOP with their own regular workloads.

Cultural awareness: cultural differences occasionally led to unhelpful assumptions that stood in the way of effective implementation.

Keeping on track: without an external donor to account to, there was little pressure to 'keep to schedule'.

INTRODUCTION

A water operators' partnership (WOP) is a collaboration between two or more water or sanitation operators, conducted on a not-for-profit basis, in the aim of developing their capacity. These partnerships are being used as a way of helping the world's public operators to sustainably deliver adequate water and sanitation for all.

This narrative case study has been produced as part of the Boosting Effectiveness of WOPs (BEWOP) project, a collaboration between UNESCO-IHE and UN-Habitat's Global Water Operators' Partnerships Alliance, and is funded by the Netherlands Government. BEWOP is a 5-year research, operational guidance and outreach initiative aimed at boosting the effectiveness of Water Operators' Partnerships around the world.

The full case study from which this narrative report was produced, is part of a series of cases being documented under BEWOP using a common framework to facilitate analysis and comparison. The case studies, together with other research, are leading to the development of tools and guidance materials to support operators, facilitators and funders to do WOPs with greater ease and confidence in their effectiveness.

The present report describes the WOP between the *Office National de l'Électricité et de l'Eau Potable* (ONEE, the national water, sanitation and electricity utility for Morocco) headquartered in Rabat, Morocco, and the *Syndicat Interdépartemental pour l'Assainissement de l'Agglomération Parisienne* (SIAAP, the sanitation utility of greater Paris), France. This ongoing partnership, which began in 2002, aims to strengthen the technical and organisational capacity of ONEE through training and exchange with SIAAP.

The research is informed by field visits to Rabat and Paris in January and February 2014. It is supported by official documentation (agreements, activity reports, work plans, presentations) and multiple interviews with employees from the two utilities. The decision to examine this particular WOP was based on the twin role of ONEE as mentee in this case and mentor in others, which reflected a genuine ownership of the WOP approach.

Great thanks are extended to all those who contributed their time and insights, especially Cléo Loussouarn, Sheila Aboulouard, Samir Bensaid, Jawad Hilali, Nabil Mosleh and Mahmoud Hafsi.



CONTEXT

The Kingdom of Morocco, located in the Maghreb region of North Africa, gained independence in 1956. In this parliamentary constitutional monarchy, executive power is shared by King Mohammed VI, the Prime Minister who represents the elected political party, and the Council of Ministers, while the legislative branch is composed of the Chamber of Counsellors and the Chamber of Representatives. The administrative capital is Rabat.

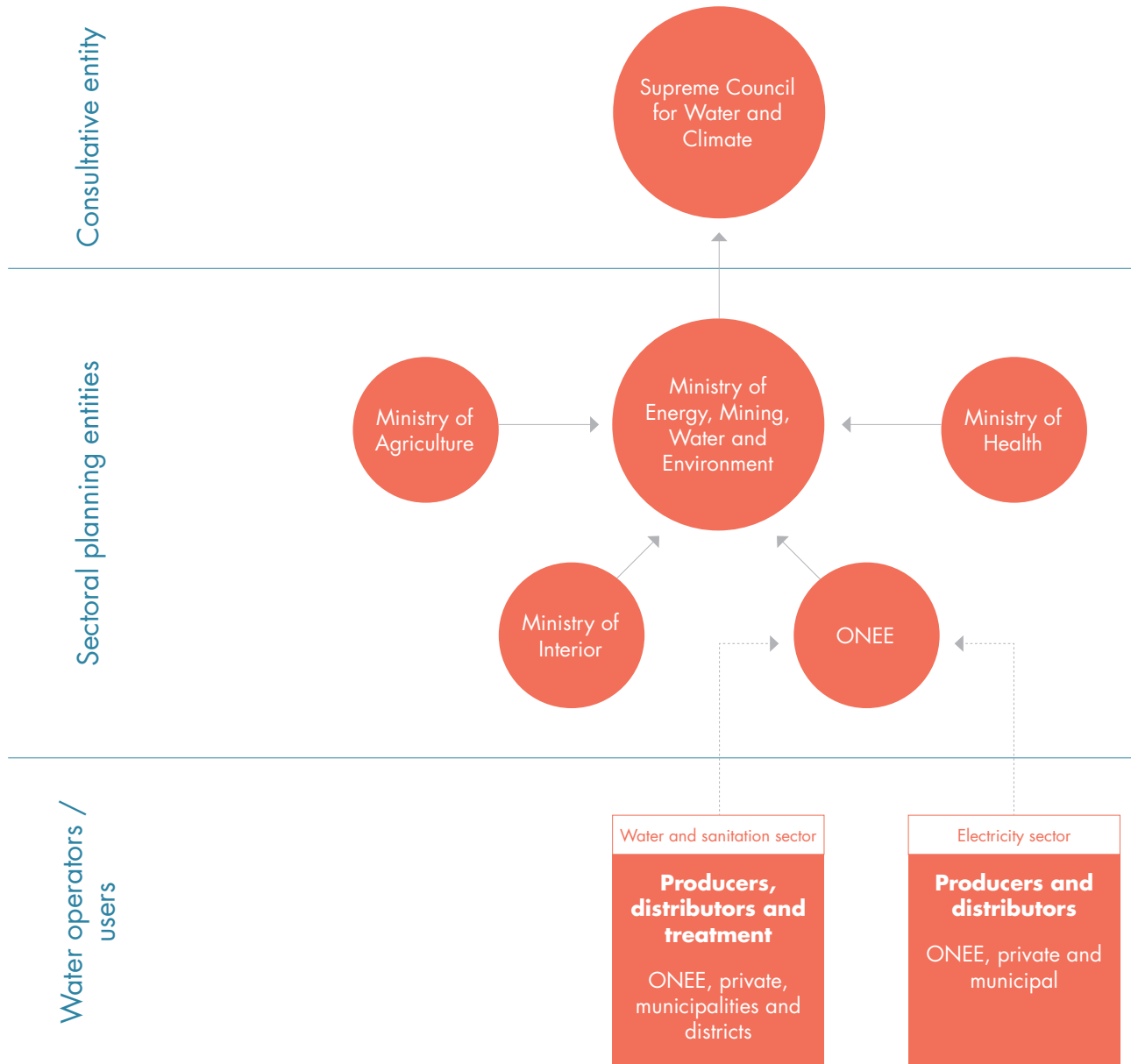
The majority of the country's 32.52 million inhabitants speak Arabic or Berber and are Sunni Muslims. Shorelines on the Atlantic Ocean and the Mediterranean Sea have historically represented a great asset for trade. Today, the economy of Morocco relies mainly on mining, tourism, agriculture and industry (e.g. aeronautics, automobile, shipyard, textile and pharmaceutical). Thanks to its strategic location between Europe and Africa, Morocco has developed a relatively strong economy in the region with many European companies having outsourced their activities there to take advantage of both its proximity and competitive environment. The national economy is considered lower middle income by the World Bank, the GDP having reached US\$104.4 billion in 2013. According to the United Nations 2013 Human Development Index, the country ranked 130th in the world. In comparison,

France's GDP was US\$2.735 trillion (2013) and it was placed 20th in terms of human development in 2013.

The climate in Morocco is marked by warm, dry seasons coupled with cold, wet seasons. Its geography is diverse, from coastal plains and forests to mountains and deserts. Two-thirds of the country is covered by mountain ranges, notably the Atlas Mountains of which the middle section in the centre of the country is considered the water tower of Morocco. The hydrologic system is complex, precipitation being unevenly distributed over the territory: the arid South hardly receives rain, while the centre and North collect abundant average annual precipitation of roughly 140 billion cubic metres.

From its creation in 1972, the utility then-called *Office National de l'Eau Potable* (ONEP, the National Drinking Water Office) was a fully public authority operating nationally under the highest authority of the King. In the 1980s, the utility was reporting to the Ministry of Equipment and Public Works, but this changed in the 1990s when responsibility was transferred to the Ministry of Land and Environment, now the Ministry of Energy, Mining, Water and Environment. The governance structure of the water sector is defined by the

Figure 1: Institutional framework of the water sector



Source: ONEE, 2012

Supreme Council for Water and Climate which plays a consultative role by examining master plans and national strategic orientations (see Figure 1).

Today, ONEE is in charge of drinking water production, water quality and sanitation services at the national level, which means that service coverage is characterised by major socio-economic differences between regions and between urban and rural areas. ONEE plans water supply and distribution services with local municipalities.

ONEE is facing many challenges in relation to the quality and quantity of its water supply. The geographical distribution of water resources and consumption needs are unequal and vary throughout

the year. The main drinking water sources for ONEE are surface water (66%), groundwater (33%) and desalination (1%). Increasing abstraction, coupled with shifting precipitation patterns due to climate change have caused raw supply to decrease significantly over 30 years, threatening the sustainability of water resources. Over-exploitation of groundwater resources is also contributing to water scarcity. Overall, the quality of the resource is also deteriorating due to substantial delays in wastewater treatment, contamination from agriculture and industry, as well as salt intrusion in groundwater tables caused by over-abstraction. To address these issues, ONEE has planned to optimise existing facilities, scale up sanitation, diversify water sources and invest in new technologies.



THE PARTNERS

SIAAP

SIAAP, greater Paris' sanitation service provider, was created in 1970. The utility serves an estimated 9 million people by treating wastewater from four departments neighbouring the capital (Paris, Hauts-de-Seine, Seine-Saint-Denis and Val-de-Marne). With 1,700 employees, SIAAP manages and operates 440 kilometres of primary sanitation pipes, six treatment plants and 12 rain and wastewater storage units. An additional 180 municipalities from other departments have service agreements with the utility. The departments designate 33 representatives who form the board of directors that decides on the strategic orientation of the utility. To implement its strategic decisions, the board elects a bureau whose President is also the Executive Director of the utility.

SIAAP services one of the biggest metropolitan areas in Europe. Its annual budget of €1.3 billion comes from transfers from the basin agencies and sanitation tariffs paid through water supply bills. Roughly 0.3% of revenue is allocated to cooperation projects with counterparts in the South (more than €1 million per year), as allowed by law. An international relations office within SIAAP is responsible for identifying and managing these projects. The utility

has been involved in 24 international water and sanitation projects in 16 countries so far, focusing on technical support to utilities along with educational and equity-oriented initiatives (ongoing in Burkina Faso, China, Cuba, Morocco and Tunisia). These experiences are all contributing to building SIAAP's know-how in international cooperation, which has been shared at international events such as the World Water Forum and World Water Week, and through their membership to GWOPA and the World Water Council.

The motivations of SIAAP to engage in WOPs are mainly based on solidarity. As a fully public entity, the regional elected representatives sitting on the board see these initiatives as materialising the political will to promote basic human rights in developing countries and to raise awareness at home. According to the Communications Director, they are based on values such as equity, knowledge-sharing and mutual assistance. They build up staff motivation in general and experts sent abroad perceive this opportunity as both a token of trust from their employer and a new challenge.

ONEE

In 2012, the *Office National de l'Eau Potable* (ONEP) merged with the *Office National de l'Electricité* to create ONEE as part of a drive to rationalise expenditures and boost the performance of the public utilities. The ONEP was originally mandated to plan investments and infrastructure for water supply. Over time, this core mission extended to drinking water production and supply, as well as sanitation services in 2000 in an effort to improve integrated water management. Today, the recently established ONEE produces an estimated 1 billion cubic meters of water annually, that is, 90% of national consumption (see Table 1). It is also responsible for water delivery in some locations and for sanitation services. The water division of ONEE employs roughly 7,600 people, of which 1,500 are working at national headquarters in Rabat while the remainder are spread across nine regional directorates and 624 operational centres across the country.

ONEE has been involved in WOPs for more than 10 years and has integrated them as a key strategy of cooperation. Together with its training arm, the Rabat-based International Institute for Water and Sanitation, ONEE has developed a conceptual framework and a code of conduct to improve the efficiency of such partnerships. The cooperation

department is pushing forward the approach with other utilities and donors, and despite initial resistance internally it is now involved in WOPs both as a mentee with utilities from the North and as a mentor with utilities in developing countries, adding up to roughly 30 partnerships per year. Both ONEE and SIAAP are also members of the Global Water Operators' Partnerships Alliance International Steering committee through which they support the promotion and scale-up of WOPs worldwide.

ONEE is a public agency that gained financial autonomy from the state in 1995 (then as ONEP). As such, it recovers costs through its own revenues and since 2012 deficits from the electricity division have been absorbed by surplus water revenues. In addition, the utility receives support from international donors for work on thematic water-related areas (e.g. hygiene, gender, environment), including the French, Spanish and Japanese development agencies and various development banks. The Islamic Development Bank is now supporting a partnership between ONEE and the water and sanitation utility in Burkina Faso.

Table 1: Key performance indicators, ONEE (2012)

	Water	Sanitation
Connections	1,592,000	738,000
Population served	13,400 000	3,300,000
Flow capacity	54.6 m ³ /s	2.4 m ³ /s
Production	972.3 million m ³	
Unaccounted-for water	158 million m ³	
Network	9,900 km (adduction) 34,440 km (distribution)	2 820 km
Drinking water/ wastewater treatment plants	57	51
Coverage	93%	

Source: ONEE, 2012





On-the-job training in Paris (Hygiene and Safety)

PARTNERSHIP DESIGN

The genesis of the WOP goes back to the 1990s when a Director of the Moroccan utility, who was then employed in France as a Senior Engineer, first met with SIAAP's General Manager. He later joined ONEE and when the Moroccan utility took on sanitation service provision in 2001, he sought collaboration with his previous professional contacts in France to assist his utility in this transition.

The WOP developed in two distinct phases with joint financing from the partners. Contrary to many other WOPs, no external funding was necessary. From 2002 to 2008, the WOP had broad objectives and consisted for the most part of 15-day visits by Moroccan delegations to the Paris facilities of SIAAP, four or five times a year. In this first phase, SIAAP covered the expenses of visiting professionals from ONEE. In 2009, a second agreement to achieve more concrete results based on ONEE's expressed needs incorporated seven thematic "improvement tracks" developed via peer-to-peer exchanges, beginning with water quality. In this current phase, expenses are more equally shared and experts from SIAAP have spent more time in Morocco, which has improved knowledge sharing.

Analysis of needs

The first phase of the partnership was not based on a shared analysis of needs. Rather it was driven by a direct request by ONEE to acquire capacity on sanitation. Activities were limited to visits by Moroccan delegations to Paris for exposure and training, and with time, the partners found that their objectives were not specific enough. The ongoing second phase is better planned and its objectives more concrete. The second agreement defined seven improvement tracks for specific support. For each of the improvement track that has been initiated so far, designated experts from SIAAP went to Morocco to establish an analysis together with their counterparts at ONEE. This initial assessment was then translated into a work plan and implementation program.

In addition, the selection of experts followed a structured process during the second phase of the partnership. SIAAP established an official administrative process to select appropriate experts for each improvement track: the office of international relations advertises openings internally and interviews candidates to identify those with fitting skills and availability.

Governance structure

The governance structure of the partnership has evolved over time. Collaboration during the first phase essentially consisted of SIAAP providing training and technical support on sanitation operations and construction to accompany ONEE in taking on its new responsibility in sanitation service provision. The flow of information went mostly one way, from mentor to mentee. The activities were limited to training events for Moroccan delegations four times a year, all trips having more or less the same objectives. Partners also exchanged technical and legal documentation to assist ONEE in establishing its own procedures in the new field. Partnership coordination relied on managers from both sides, and was largely spontaneous and informal. Many delegations did not report on their trips, although this was stipulated in the agreement.

To address the weak orientation in the first years of cooperation, the second phase was designed based on a detailed summary of ONEE's interests. There was a one-year gap between the two phases because the person in charge of the WOP at SIAAP was unavailable to engage in the partnership. Once reactivated, the WOP coordination was decentralised and transferred to the various experts responsible for each improvement track. Today, most tracks are driven by exchanges between individual

professional peers, an approach which has reduced the task load and dependence upon the managers. It also allows the tracks to develop at their own pace, following the needs of the respective units involved. Thanks to this new governance mechanism, the management of the partnership is more efficient, the workload is better shared and exchanges are more technical and targeted. At the same time, not all tracks are progressing equally and at time of writing several had not yet begun.

First agreement: 2002 to 2008

The partnership between SIAAP and ONEE started officially on July 30, 2002, when the parties signed the first memorandum of understanding. This first implementation phase lasted six years and aimed to provide training on sanitation operations and works to experts from ONEE. During this phase, the roles and responsibilities of the parties, as well as governing mechanisms, were rather broad. Specifics of the agreement focused on remuneration schemes, travel arrangements, monitoring and reporting modalities, as well as conflict resolution. ONEE and SIAAP jointly established indicators to gauge the progress of the partnership.

Two groups of experts were identified to take part in this knowledge transfer exercise: technicians and managers. The training events were designed

as courses or seminars, taking place either in Paris or in Rabat. SIAAP committed to offering quarterly training on sanitation operations to four technicians (for two weeks) and two managers (for three days), with the same number focusing on sanitation works. Although it was stated as a requirement in the agreement, most of the training sessions were not reported officially. According to ONEE, some 70 technicians, engineers and managers were trained between 2002 and 2007.

The evolution toward a second phase was led by the partners who felt that the partnership was ready to be restructured with more specific content in order to achieve more concrete results. This transition started informally in 2008 with laboratory counterparts exchanging on the improvement track related to water quality control. However, the activities and modalities were not formalised until 2009 when the partnership was strengthened with a new agreement setting out seven specific improvement tracks.

Second agreement: 2009 onward

The second phase of the WOP between SIAAP and ONEE aimed to expand the partnership through the mutual exchange of expertise on an extended range of themes. This new direction was formalised in an open-ended official memorandum of understanding signed on March 18, 2009 to replace the 2002

agreement. It stipulated the context and purpose of the partnership, its proposed improvement tracks, the technical follow-up and financial modalities, the duration, the terms of cancellation and a dispute resolution mechanism.

Seven improvement tracks were identified in the agreement:

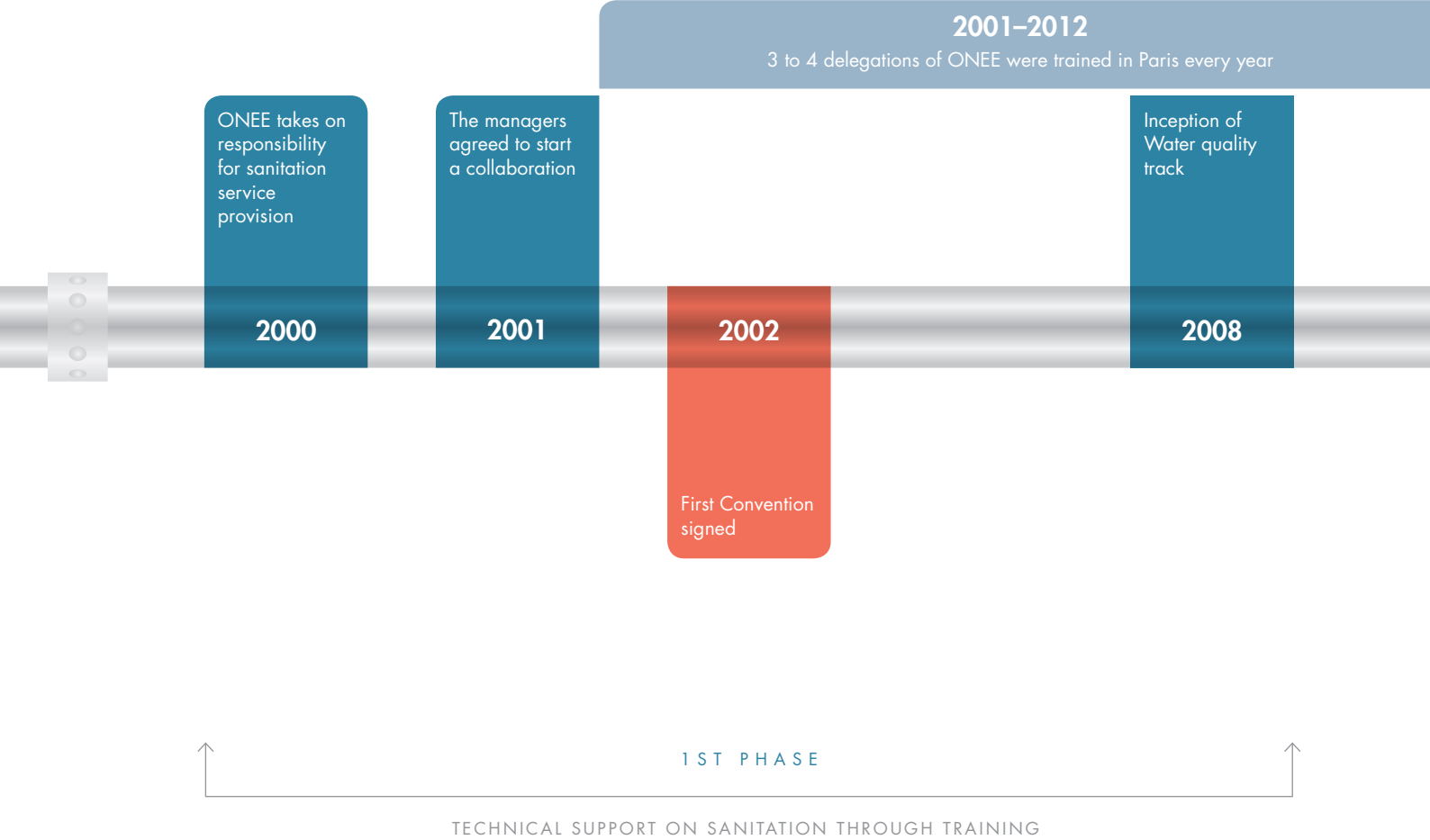
- Safety on construction sites
- Treatment of industrial waste
- Treatment using constructed wetlands
- Reuse of recycled wastewater
- Sanitation and water quality controls
- Pilot wastewater treatment plant extension
- Implementation of communication tools

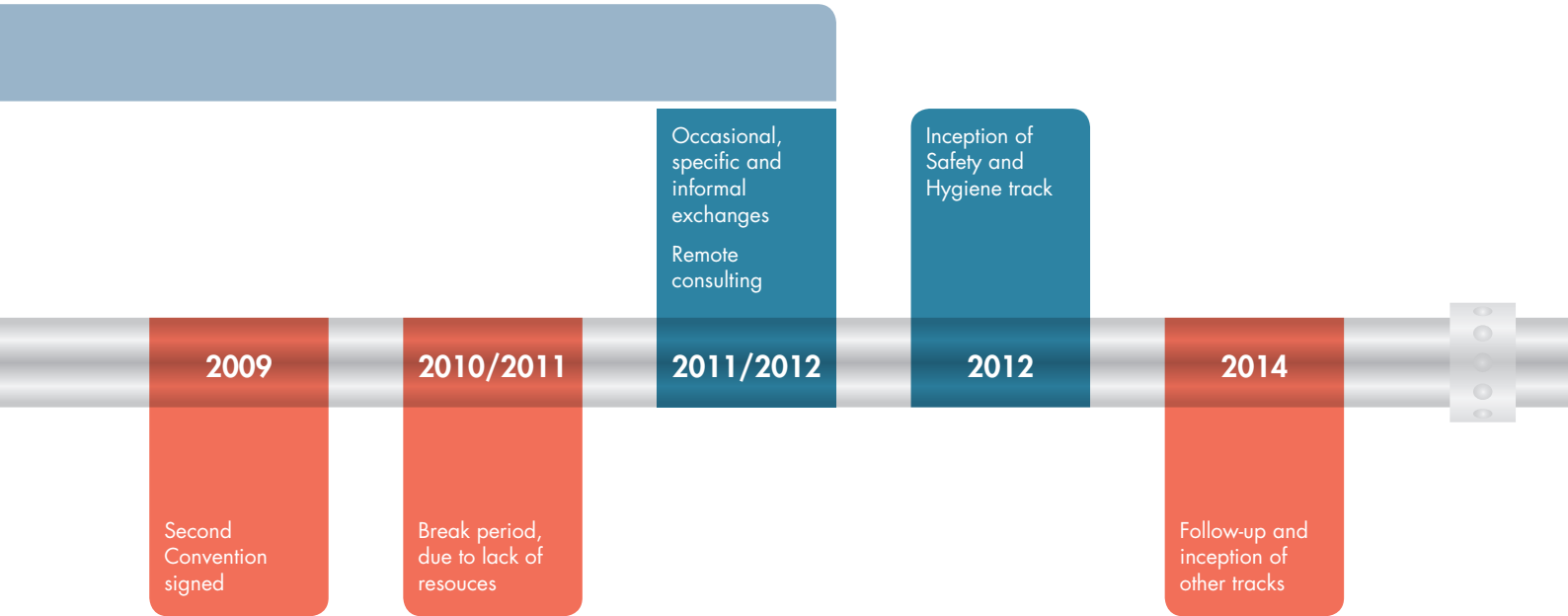
The agreement broadly describes the activities planned to achieve the objectives, mostly comprising exchanges and training, however the specifics of each track were developed by the units directly involved. A steering committee was set up to ensure technical follow-up and to establish mechanisms for reporting and indicators to assess partnership progress.

This agreement was later augmented with two more improvement tracks. A first additional clause was

Timeline

This timeline is not exhaustive, but highlights some key events in the WOP.





↑ 2ND PHASE ↓

BILATERAL EXCHANGES BETWEEN TECHNICAL UNITS ON 7 THEMES



added to include the water quality theme that had started informally in 2008, and a second clause was added in March 2013 to set objectives for the hygiene and safety track. Originally focused only on construction sites, the amendment extended the safety track to sanitation facilities and hygiene, and defined five specific objectives over a three-year period.

It is worth noting that the detailed approach adopted for monitoring the hygiene and safety track was specified within the agreement. To allow for adjustments in planning and expected outputs, it required the partners to report on progress at key points in the collaboration. At each milestone, the partners would produce reports, summarizing work undertaken, its efficiency, overall satisfaction and lessons learned for future WOPs. The reports would

be discussed and need to receive executive approval before the partners would move on to the next step.

The key differences between the phases are that the first agreement was relatively general, limited to sanitation services, and largely training-based. After the training sessions, there was minimal follow-up between staff from the two utilities and little reporting on how the knowledge acquired through the WOP was applied. The second phase was more demand driven, managed more directly by the respective units involved in the exchange, and with a higher degree of follow-up. The timeline indicates the key steps in the formation and implementation of the WOP (see [Timeline on pages 15-16](#)) and highlights the main differences between the first and second phases.

PARTNERSHIP IMPLEMENTATION

The interactions between the partners evolved over the course of the partnership. During the first phase, the two managers in charge of the WOP worked as a team to plan each training visit, based on the needs of ONEE and the availability of SIAAP. The formal agreement did not guide decision making, as it was too broadly formulated, however the loose management structure allowed the partnership to grow organically.

The first agreement was focused on supporting ONEE in its transition to sanitation by training technical and managerial staff on sanitation works and operations, more specifically wastewater treatment processes, flow management, microbiology, wastewater treatment facilities and disturbances, and environmental protection. SIAAP hosted visits to its facilities in France, which served as awareness and motivation vehicles to redeploy ONEE staff from drinking water to sanitation activities. In 2005, it was SIAAP staff who received training during workshops at ONEE on constructed wetland technology and management.

The second memorandum of understanding transferred decision-making to the heads of units where the exchanges were happening. Counterparts

from ONEE and SIAAP were then identified to jointly develop objectives and planned activities, which were then formalised in the agreement. Not all tracks have followed this more structured approach, however the water quality control track, developed before the formal agreement was signed, is a good example.

In this section, we look more closely at the implementation of the second phase of the WOP, which built on the lessons learned from the first experience. Out of seven improvement tracks programmed in the 2009 agreement, two have formally started: water quality control and safety and hygiene, with the remaining tracks are scheduled to start at the end of 2014. It must be noted that because the WOP is self-facilitated and self-financed, the pace of its progress reflects the needs, motivation and availability of the partners in each track rather than the exigencies of an external facilitator. Despite the existence of a clear framework for collaboration in its second phase, flexibility has remained a key characteristic of this partnership.

Water quality control

This topic emerged spontaneously before the second agreement was signed, via the collaboration of the Laboratory Assistant Manager at SIAAP and the Director of the Quality Department at ONEE who met during various training sessions. They saw the need to focus the partnership on more specific goals.

ONEE's water quality department is divided into one central and 65 decentralised regional laboratories, with a total of 160 staff of which half work at the central office in Rabat. The laboratories are equipped with advanced technologies to analyse drinking water samples. The department's responsibilities were extended to testing the quality of wastewater and sludge discharge in 2000. The laboratory was certified by the International Standards Organisation (ISO) in physico-chemical and micro-biological analysis of drinking water and wastewater in 2002, and has since provided services and technical assistance to third parties.

The first activity jointly implemented consisted of a diagnostic visit to prepare a roadmap, still being followed to date. It emerged after a four-day visit of ONEE facilities by the Laboratory Assistant Manager from SIAAP, in December 2007. This visit sought to identify and define common areas of interest around water quality. The subsequent report outlined specific

activities, implementation plan and expected results. SIAAP aimed to gain knowledge on drinking water from the Moroccan utility's demonstrated experience, whereas ONEE prioritised wastewater due to its counterpart's experience in this sector. Initially, they identified nine areas of cooperation based on ONEE's needs:

- Wastewater sampling, physico-chemical and bacteriological analysis
- Analysis for wastewater operational and regional laboratories
- Follow-up on sanitation facility performance and sludge characterisation
- Characterisation of gases and odour problems
- Analysis methods, uncertainty calculations and validation of results
- Water and sludge analysis (hydrocarbon)
- Sludge reuse analysis based on international standards
- Management of certified public laboratories
- Obtaining ISO 14001 for an urban wastewater treatment plant

The main implementation activities consisted of technical training sessions, short courses, information missions and remote exchanges. Following the initial needs analysis, SIAAP received Moroccan



On-the-job training in Paris (Hygiene and Safety)

delegations in Paris to study specific topics, while ONEE received French delegations in Rabat. The counterparts have since followed up frequently on specific issues and have exchanged extensive documentation on technical, organisational, contractual and commercial issues. Moreover, the counterparts regularly revisit and adjust the partnership to meet their needs.

In 2009, the partners added themes to consider under this improvement track, focusing on quality in the context of sanitation operations at pumping stations, wastewater treatment, networks plans, and non-domestic wastewater.

The results of this improvement track are numerous, even though implementation is still underway. These highly interactive field visits have produced detailed reports with concrete recommendations that ONEE is directly applying to improve operations. The partners work in very similar laboratories that function based on international standards, they have therefore been able to easily compare their methods and procedures and learn from one another. ONEE has improved its technical and analytical capacity in wastewater quality control. For instance, technical staff now feel more confident to conduct sampling activities (e.g. organic micro-pollution, inter-laboratory sampling). The laboratory has made progress on measurement techniques to improve

the accuracy of analyses. In addition, ONEE has been able to transfer expertise and skills to regional laboratories and to delegate responsibilities, which has been very rewarding for regional staff. Finally, both partners recognise the boost to staff morale as a result of taking part in this international cooperation project.

Safety and hygiene

This second improvement track concerns the hygiene and safety department at ONEE, both at headquarter and regional levels. Following the signing of the second memorandum of understanding, the Chief of Sanitation Facilities identified safety and hygiene as an urgent priority for ONEE, given a number of accidents. Together with the Chief of Health and Environment at SIAAP, they decided to focus on capacity building in hygiene and safety management in the various regions. During a second visit, they identified specific objectives based on the needs of ONEE and the capacity of SIAAP to support them, at which point SIAAP initiated a selection process for experts on the matter. The Hygiene and Safety Manager at ONEE and the Head of Safety, Working Conditions and Health at SIAAP were brought on board and began liaising with the international relations office to secure the funding to get started.

The objectives of this improvement track were to:

- Assess the capacity of ONEE to manage the prevention of professional risk in sanitation activities
- Suggest appropriate improvement measures in terms of organisation, management, methodologies, monitoring and training
- Set up a monitoring framework to assess implementation progress and to jointly plan further knowledge exchanges

To reach these objectives, the improvement track was divided into three distinct stages: analysis, consolidation and finalisation. The analysis phase began with an exploratory field visit by SIAAP to Morocco in early 2012, in which experts prepared an analysis of the current safety area and made recommendations for regional restructuring along with actions to improve the hygiene and safety department itself. The analysis revealed that ONEE already had good methods in place and that its initial demands were too ambitious for the scope of the partnership, so the partners zeroed in on priority actions and planned more targeted activities. In June 2012, SIAAP received the safety committee of ONEE to further elaborate and approve the contents of the initial field report.

In March 2013, the SIAAP experts travelled to Morocco twice. They first undertook a mission to assess regional offices in Khourigba and Berrechid and to analyse relevant operational and technical documentation (e.g. guidebooks, manuals). One of the main issues they raised was the management of risk in relation to gas poisoning during sanitation network operations. The experts also gained greater insight into the organisational and safety culture of ONEE. In addition, they evaluated the adequacy of human and material resources with the level of safety needed. Such field visits allowed them to assess safety management during maintenance operations and at sanitation facilities, including work supervised by internal staff as well as work outsourced to other companies. They classified different types of situations in relation to their likelihood of occurrence, based on empirical facts. These analyses were summarised in graphs highlighting strengths and weaknesses, from which recommendations emerged and actions were proposed to improve safety.

These preliminary conclusions were reinforced when SIAAP experts returned to Morocco to complete the assessment with visits to two other cities (Nador and Echelallate) where they visited construction sites and sanitation facilities. In Nador, they visited a wastewater treatment plant built in 2010 where they reviewed all the measures undertaken to reduce industrial risks and toured a pumping station

and sanitation network site. In Echelallate, they visited another wastewater treatment plant and two pumping stations under construction.

Thereafter, they proposed a strategic work plan to be implemented with the support of SIAAP over the coming two years. The most important aspects were to set up a network of prevention staff, to provide equipment to technicians including gas sensors, and to strengthen contract specifications and work instructions. The next step was the presentation in March 2014 of the detailed action plan to ONEE staff which launched the implementation phase of the safety track.



Table 2:

Summary of objectives, activities and results for the two first improvement tracks of the second ONEE-SIAAP agreement

Phase II	Implementation tracks	
	Water quality control (2008-today)	Safety and hygiene (2012-today)
Objectives	Knowledge sharing on drinkable water and wastewater quality control.	Regional capacity building in hygiene and safety management
Activities	Analysis of needs followed by technical training sessions, short courses, information missions and remote exchanges between laboratory staff around nine jointly identified themes.	Field exploratory visit to map ONEE's organisation of the safety area, and four missions to assess regional offices' management of safety during maintenance operations and at sanitation facilities
Results	<ol style="list-style-type: none"> Improved technical and analytical capacity in wastewater quality control: <ul style="list-style-type: none"> skills and confidence gained in sampling activities (e.g. organic micro-pollution, inter-laboratory sampling). progress made on measurement techniques, improving the accuracy of analyses. Transfer of expertise and skills to regional laboratories and delegation of responsibilities. Increased staff motivation. 	<ol style="list-style-type: none"> Recommendations made for a regional reorganisation and proposed actions to improve the overall hygiene and safety department.

OUTCOMES

Following ONEE's take-over of the sanitation service and investments in expanding coverage, access rose significantly. While these performance improvements are attributable largely to the major investments made at the time, the technical support ONEE received through this WOP made an important contribution to its smooth takeover of the new service area. In 12 years of cooperation, SIAAP's expertise contributed to ONEE creating a highly competent and effective sanitation service, and despite strong initial resistance by its drinking water staff to being redeployed in what it considered to be an undesirable service area.

New skills for redeployment

In 2000, when ONEE took over sanitation services, there were virtually no skilled staff to undertake such activities. The first phase of the WOP raised awareness of regional staff who visited sanitation facilities in France with the financial support of SIAAP. The partnership became a valuable vehicle to motivate staff and redeploy them from drinking water supply to sanitation services, and to train them in using new types of technologies and facilities.

SIAAP formalized the issuing of course certificates following successful completion of each training programme. This allowed participants to improve their curriculum vitae, and offered an additional source of motivation.

Decentralisation of skills

With many staff at headquarters and regional centres now equipped with new skills through the WOP, trainees contribute to the decentralisation of skills by spreading their knowledge within smaller branches of ONEE. This process has been particularly useful as part of the water quality control improvement track. The six central laboratory operators gained technical skills on wastewater sampling with SIAAP and later trained more technicians in Morocco. Gaining new knowledge has been very valuable for regional staff and has increased their motivation to take on new responsibilities.

SUCCESS FACTORS

Building trust

A climate of genuine confidence and trust has been the key success factor in this WOP. But building trust takes time as this partnership has shown, and transparency is essential. Establishing foundational partnership principles from the onset can allow for the structured elaboration of operational activities. According to SIAAP, adopting an honest and self-critical attitude is essential to making real improvements.

Solidarity

Both partners considered that the not-for-profit aspect of the WOP was essential in allowing them to pursue mutual benefits in an atmosphere of openness and trust. The employees of both utilities expressed their conviction that the absence of commercial objectives allowed for the free, transparent flow of information, as well as for the emergence of the strong solidarity that underlies this partnership.



Conducting Analysis at ONEE's water quality laboratory

Partner readiness

In this WOP, ONEE managers were originally driven by an imperative to build capacity to take on the new sanitation service, and a conviction that working closely with SIAAP would help make this possible. Yet throughout, the partnership has been shaped largely by ONEE managerial awareness of their needs and clarity about what they wanted to gain from the partnership. ONEE's self-awareness, combined with its financial commitment to the partnership has allowed both mentor and mentee to take ownership in the process and to collaborate as equals.

Flexibility within a clear Framework

Another critical factor in the partnership's effectiveness was its governance. Clear targets defined through a formal agreement provided direction for the collaboration while leaving vital space for spontaneity, flexibility and adaptability. In this WOP, the international relations offices of each utility served important roles as catalysers and facilitators. This support allowed the technical counterpoints to avoid bureaucratic procedures and focus on content.

External assessment of needs by professional peers

ONEE had good knowledge of its performance deficiencies and capacity gaps, but needs were not always formulated explicitly. During the second phase of the partnership, the analysis made by experts from SIAAP helped ONEE to better identify priorities. By widening exchanges from WOP managers exclusively to direct contact between technical counterparts, dealings became more efficient and strengthened confidence between the partners. Their experiences in different contexts enabled them to look at their working methods and organisation with a critical eye.

CHALLENGES

Experts' availability

The mentor's ability to release its staff is a constraint for the WOP. For the most part, the time that SIAAP experts committed to the WOP was in addition to their own workloads. SIAAP managers reported that it was difficult to release staff to spend time on the partnership, conversely, mentor experts expressed frustration at not being able to spend more time in the field to better understand the context and offer appropriate support. Experts felt that tight schedules limited their ability to analyse problems and design appropriate solutions.

Cultural awareness

Lack of awareness of embedded cultural differences sometimes led to the suggestion of unfit solutions. For instance, in a management culture where there is reluctance to delegate responsibility, an intervention focused on building the capacity of managers might not make its way down the ranks and so will have a more limited impact than expected. Material factors, if not taken into account, can also lead to the suggestion of inappropriate solutions. The identification of realistic responses depends on the

involvement of both partners, not only at managerial but also at operational levels.

Keeping on Track

The self-funded nature of this WOP lent it many advantages, such as strong ownership and demand drive. However, without an external donor, the utilities were only accountable to one another for reporting and respecting planned timelines. In several of the improvement tracks, this lack of pressure meant that start-up took longer than planned.



International Institute for Water and Sanitation (ONEE headquarter, Rabat)

WHAT THE PARTNERS SAY

"We all have the same requirements and play by the same rules of the game, but we do not have the same constraints."

Jean-François Moisan, Laboratory Assistant Manager, SIAAP

"We also reinforce inter-professional ties. We renew our approach within SIAAP as we learn from our own mistakes."

Max Devreker, Head of Safety, Working Conditions and Health, SIAAP

"The impact of such partnerships is sometimes hard to isolate, but the sustainability of the relationship, the continued requests by the mentee for new forms of support, and the frequency of interaction are clear signs of its success ..."

Jawad Hilali, Manager of the Cooperation Department, ONEE

"Our approach is learning from the North and opening to the South."

Abdelillah Belhaj, Director of the Quality Department, ONEE

