OECD Studies on Water

Water Governance in Tunisia

OVERCOMING THE CHALLENGES TO PRIVATE SECTOR PARTICIPATION

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BETTER POLICIES FOR BETTER LIVES

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Foreword

The OECD has long been a strong advocate for water management that contributes to economic growth, environmental sustainability and social welfare. With a multi-disciplinary team drawn from across the organisation, the OECD provides analysis to improve the information base, identify good practice and provide a forum for exchanging country experiences. Specific areas of OECD expertise and tools of relevance to water involve financing, governance, regulatory policy and private sector participation. This report builds on this expertise to diagnose the main governance and financing challenges to private sector participation (PSP) in the water supply and wastewater sector of Tunisia, and provides ways forward to address these challenges.

The present report has been developed as part of a water policy dialogue conducted by the OECD jointly with the Global Water Partnership-Mediterranean (GWP-Med) in the context of the project labelled by the Union for the Mediterranean (UfM) "Governance and Financing for the Mediterranean Water Sector". The policy dialogue was carried out in Tunisia over 2013-14, in close co-operation with the Bureau de Planification et des Équilibres Hydrauliques (BPEH) as the main focal point. The dialogue involved a wide range of stakeholders from the government, donors, civil society and the private sector, who contributed through various means, including answering questionnaires, giving input during policy workshops and bilateral interviews held in Tunis in June and October 2013 and March 2014, as well as providing written comments.

The joint GWP-Med / OECD project aims to diagnose key governance bottlenecks to mobilising financing for the Mediterranean water sector and to support the development of consensual action plans based on international good practices. The process draws on established OECD and GWP-Med methodology and expertise in water planning and implementation and the facilitation of inclusive multi-stakeholder policy dialogues, as well as previous work undertaken by the two organisations in Egypt and Lebanon. It involves evidence-based policy dialogues at national and regional levels. Tunisia is one of the pilot countries in the implementation of this project.

This report was produced with the financial assistance of the FEMIP Trust Fund. The Fund was established in 2004 and has been financed, to date, by 16 EU member countries and the European Commission, and is managed by the European Investment Bank. The opinions expressed here do not necessarily reflect the views of the European Union or the European Investment Bank. The support of the Swedish International Development Cooperation Agency (Sida) has also been instrumental to the development of the policy dialogue in Tunisia.

This report is the result of work led by Céline Kauffmann from the Regulatory Policy Division, headed by Nick Malyshev, in the OECD Public Governance and Territorial Development Directorate, directed by Rolf Alter. The drafting team involved multi-disciplinary expertise, including on water governance (Aziza Akhmouch, Regional

Development Policy Division), PPPs and budget policy (Ian Hawkesworth and Ihssane Loudiyi, Budgeting and Public Expenditure Division) and regulatory policy (Céline Kauffmann, Dambudzo Muzenda and Carine Viac, Regulatory Policy Division). Sarra Touzi and Meriam Ben Zakour, GWP-Med were instrumental to the development and conduct of the policy dialogue on water in Tunisia. The OECD is also thankful to the European Investment Bank team (EIB), the Union for the Mediterranean Secretariat (UfM), and the many stakeholders that contributed throughout the policy dialogue process (a list of stakeholders is provided in Annex A). The report was submitted for comments to the OECD Regulatory Policy Committee and the Network of Economic Regulators, and discussed during the third meeting of the OECD Water Governance Initiative on 28-29 April 2014 in Madrid, Spain. Jennifer Stein prepared the manuscript for publication.

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Acronyms and abbreviations

AFD	French development agency (*Agence française de développement*)
AfDB	African Development Bank
ANEAS	National Association of Water and Sanitation Service Providers (*Association nationale des prestataires de services d'eau et d'assainissement*)
ANPE	National Environmental Protection Agency (*Agence Nationale de Protection de l'Environnement*)
BOT	Build-operate-transfer
BPEH	Office of Planning and Hydraulic Balance (*Bureau de Planification et des Équilibres Hydrauliques*)
BTS	Tunisian Solidarity Bank (*Banque Tunisienne de Solidarité*)
CAWTAR	Centre for Arab Women for Training and Research (*Centre des femmes arabes pour la recherche et la formation*)
CERTE	Water Research and Technology Centre (*Centre de Recherche et des Technologies des Eaux*)
CGF	Office of the Financial Comptroller General (*Contrôle Général des Finances*)
CGLU	United Cities and Local Governments (*Cités et Gouvernements Locaux Unis*)
COPEAU/STORE	Water pollution control network (*Réseau de Contrôle de la Pollution de l'Eau*)
CRDA	Regional agricultural development commission (*Commissariats régionaux au développement agricole*)
DGGREE	General Directorate of Rural Engineering and Water Use (*Direction générale du génie rural et de l'exploitation des eaux*)
DGP	General Directorate of Planning (*Direction générale de la planification*)
DGPPP	General Directorate of Public-Private Partnership (*Direction générale de partenariat public-privé*)
DGRE	General Directorate of Water Resources (*Direction générale des ressources en eau*)
EBRD	European Bank for Reconstruction and Development
EIB	European Investment Bank
GDA	Agricultural development group (*Groupement de développement agricole*)

GDP	Gross domestic product
GWP-Med	Global Water Partnership-Mediterranean
IBRD	International Bank for Reconstruction and Development (World Bank)
IFC	International Finance Corporation
INNORPI	National Standardization and Intellectual Property Institute (*Institut National de la Normalisation et de la Propriété Industrielle*)
ITES	Tunisian Institute for Strategic Studies (*Institut Tunisien des Etudes Stratégiques*)
IWA	International Water Association
KfW	German Development Bank (*Kreditanstalt für Wiederaufbau*)
MARH	Ministry of Agriculture and Water Resources (*Ministère de l'Agriculture et des Ressources hydrauliques*)
MDCI	Ministry of Development and International Cooperation (*Ministère du Développement et de la Coopération internationale*)
MDEAF	Government properties and land management secretariat (*Secrétariat d'état des domaines de l'état et des affaires foncières*)
MEE	Ministry of Equipment and the Environment (*Ministère de l'Équipement et de l'Environnement*)
MTEF	Medium-term expenditure framework
NGO	Non-governmental organisation
ODC	Tunisian Consumer Defence Organisation (*Organisation Tunisienne de Défense du Consommateur*)
OECD	Organisation for Economic Cooperation and Development
ONAS	National Sanitation Office (*Office National de l'Assainissement*)
PAGER	Rural collective water supply programme (*Programme d'approvisionnement groupé en eau potable des populations rurales*)
PND	National Development Plan (*Plan National de Développement*)
PPP	Public-private partnership
PSP	Private sector participation
SIAPS	Agri-food and Fisheries Information Service" (Mexico) (*Servicio de Información Agroalimentaria y Pesquera*)
Sida	Swedish International Development Agency
SINEAU	National Water Information System (*Système National d'Information sur l'Eau*)
SISOL	Soils Information System (*Système d'Information sur les Sols*)
SNCC	National Climate Change Strategy (*Stratégie nationale de changement climatique*)
SONEDE	National Water Supply and Distribution Company (*Société Nationale d'Exploitation et de Distribution des Eaux*)

STEP	Purification plant
SYGREAU	Water Resource Management System (*Système de Gestion des Ressources en Eau*)
TND	Tunisian dinar
UFC	Federal Union of Consumers (*Union fédérale des consommateurs*)
UGQ	Quality Management Unit (*Unité de la gestion qualité*)
UfM	*Union for the Mediterranean*
USC	Concessions Unit (*Unité des services de concessions*)
WHO	World Health Organization

Executive summary

Although it has performed remarkably well in the past, the water sector in Tunisia is now faced with deteriorating infrastructure and declining service quality, as well as increasingly severe financing difficulties. Governance of the sector, which is based on highly centralised responsibilities and decision-making powers, is also revealing its limitations.

In this situation, institutional inertia prevails and it is not clear that the Tunisian authorities appreciate the urgency of reform. Despite the transition to democracy, government instability has made it impossible to develop a strategic vision of water policies, and growing social pressure has evoked a management approach to the water sector that is reactive and crisis-driven rather than proactive and forward-looking.

The post-revolution reconstruction now under way, however, offers a unique opportunity to rethink the water governance framework and the potential role of private sector participation (PSP) in development of the water sector. With the recasting of the legislative framework and the consideration now being given to new models for the country's economic development, it is timely to engage in strategic thinking about the water sector and the private sector's role, and the institutional and regulatory implications of PSP, before choices are made.

If Tunisia is to give serious consideration to private sector involvement, there will have to be a change of administrative culture and of the approaches to delivering water and wastewater services in the country. The historic operators will have to be given greater financial and decision-making autonomy, and mechanisms will have to be developed to ensure transparency and integrity in the budgetary process and to guarantee value for money in government spending. Some regulatory functions will also need to be reconsidered with a view to rendering the existing tools more efficient, systematising procedures, and making service more customer-oriented.

The authorities should also take steps to reinforce the sector's financial viability. Operators are facing significant financial challenges because of rising costs, low water tariffs, and the insistent demand for high-quality services. This situation could discourage PSP and could even spark a vicious circle of service deterioration.

A participatory and territorially differentiated approach would seem to be needed, one in which water policy is geared in a more transparent manner to the various levels of government and non-governmental players. Stakeholders' engagement, and in particular that of users at the regional level, will be a critical dimension for the future development of the sector, whatever the modality chosen for managing water services. This is an essential factor for improving service performance, and for gaining public acceptance of the reforms underway and the potential resort to PSP.

This report offers considerations and recommendations on three specific themes, which the Tunisian authorities may wish to take into account in the course of their ongoing efforts:

1. Understanding the variety of PSP modalities, their objectives and conditions for success, and identifying those most appropriate to the Tunisian context;
2. Ensuring the financial and fiscal sustainability of PSP in the Tunisian water sector;
3. Improving the mechanisms for transparency and enhancing stakeholders' engagement in order to enlist greater public support.

The feasibility of PSP depends not only on the complexity of the manner in which it is envisioned, but also on the existence of a number of framework conditions and on the willingness of the private partners to assume the risks and commitments inherent in PSP, in a country the size of Tunisia.

Several possible forms of PSP are now under consideration in Tunisia. Provided certain conditions are met (in particular, the strengthening of capacities), the involvement of small-scale operators in pilot projects in rural areas could help to overcome the shortcomings of some of the *groupements de développement agricole* (GDA, "Agricultural development groups", essentially local water management associations or boards). Private operators working under management contracts with clear objectives in terms of improving technical and commercial performance could also help improve the quality of service. The Tunisian authorities could moreover sponsor a pilot project of the "build-operate-transfer" (BOT) type to develop a plant for water treatment (conventional or nonconventional water) or re-treatment, in order to test the applicability of such a solution and the private sector's willingness to commit to such a partnership in Tunisia. The country's ability to undertake more complex forms of PSP will depend on its capacity to implement the necessary framework conditions.

This report identifies financial viability and fiscal sustainability as the essential conditions for success with PSP, and more broadly for the sustainable management of public services in Tunisia. Such an outcome will require a combination of factors that includes greater autonomy for operators, more transparent budgetary processes, and the adoption of a financial planning tool that will allow strategic decisions to be taken with respect to alternative scenarios for financing the sector. An essential step to making the operators more viable will be to reconsider the service charges, but this is not the only issue at stake.

Adoption of the law on PPP and establishment of a PPP unit should go some way to addressing the legal and institutional shortcomings and establishing better co-ordination among the key players. Introduction of this institutional architecture should go hand-in-hand with the development of tools for ensuring value for money and strengthening capacities at the central level and in the line ministries for developing and monitoring projects.

This report proposes three pillars for strengthening stakeholders' engagement: better access to information, consolidation of the communications strategy, and activation of participatory platforms. A complete and broadly disseminated database on water and sanitation services, including service quality indicators, would help bring greater transparency to the water sector. To be effective, a solid information base should be accompanied by efforts to strengthen the communication capacities and tools of the government and the operators. At the same time, the reform process would be enhanced by strengthening the role of non-governmental organisations (NGOs) in the water sector, and that of the Tunisian consumer defence organisation (ODC).

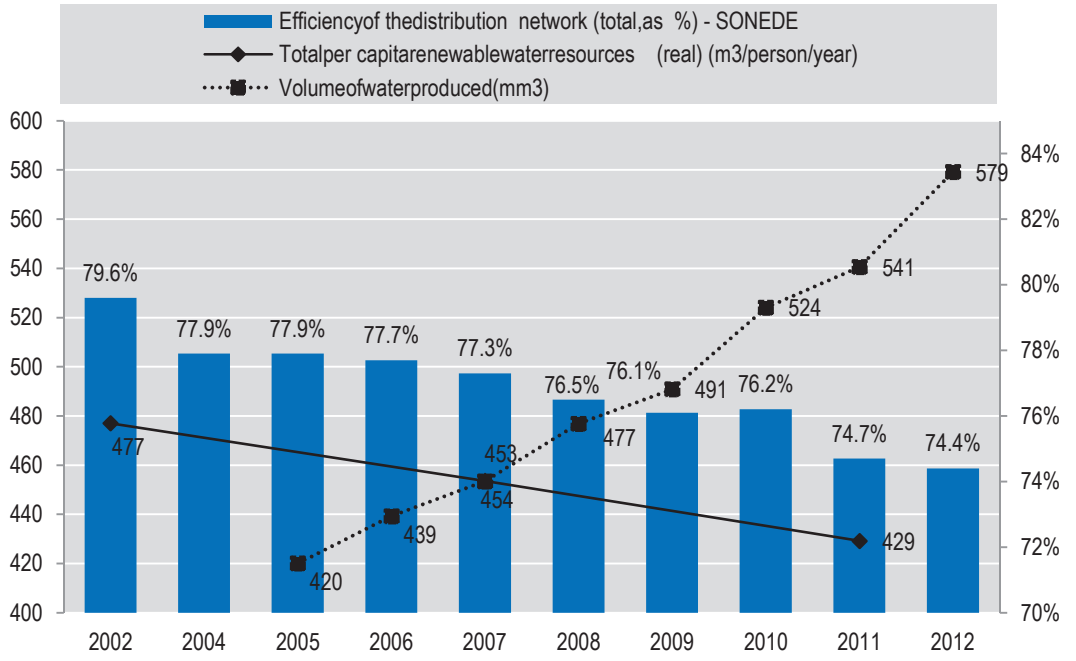
Assessment and recommendations

The water sector in Tunisia is faced with deteriorating infrastructure and declining service quality, as well as increasingly severe financing difficulties. These problems are exacerbated by the increasing scarcity of water resources and the fact that they are already heavily exploited, which makes further investment more costly. Transferring water from the north to the south has shown its limits. The technological solutions to which the country might turn, such as exploiting nonconventional sources, are expensive. Operators are showing signs of exhaustion and are facing significant financial challenges because of rising costs, low tariff levels, and the insistent demand for high-quality service. Governance of the sector, which is based on highly centralised responsibilities and decision-making powers, is also revealing its limitations.

In this situation, institutional inertia prevails and it is not clear that the Tunisian authorities appreciate the urgency of reform. Despite the transition to democracy, government instability has made it difficult to develop a strategic vision for development of the water sector, and at the same time growing social pressure has induced a management approach that is crisis-driven rather than forward-looking. There are a number of instruments, such as the 2050 Water Sector Strategy, the sector review, the five-year plans and the programme contracts, that could provide a medium- and long-term anchor for reform, but their development has been stymied or regularly interrupted by the economic and political setting. Moreover, while the Tunisian water sector's performance has far outstripped that of other countries in the region (with unmatched coverage and service quality at low prices), the prevailing attitude to date has been one of "wait and see". As capital depreciation is very slow in the water sector, and the degradation of buried infrastructure goes unnoticed until the situation becomes critical, it is easy to put off tough decisions, and leave them to a later legislature or another government.

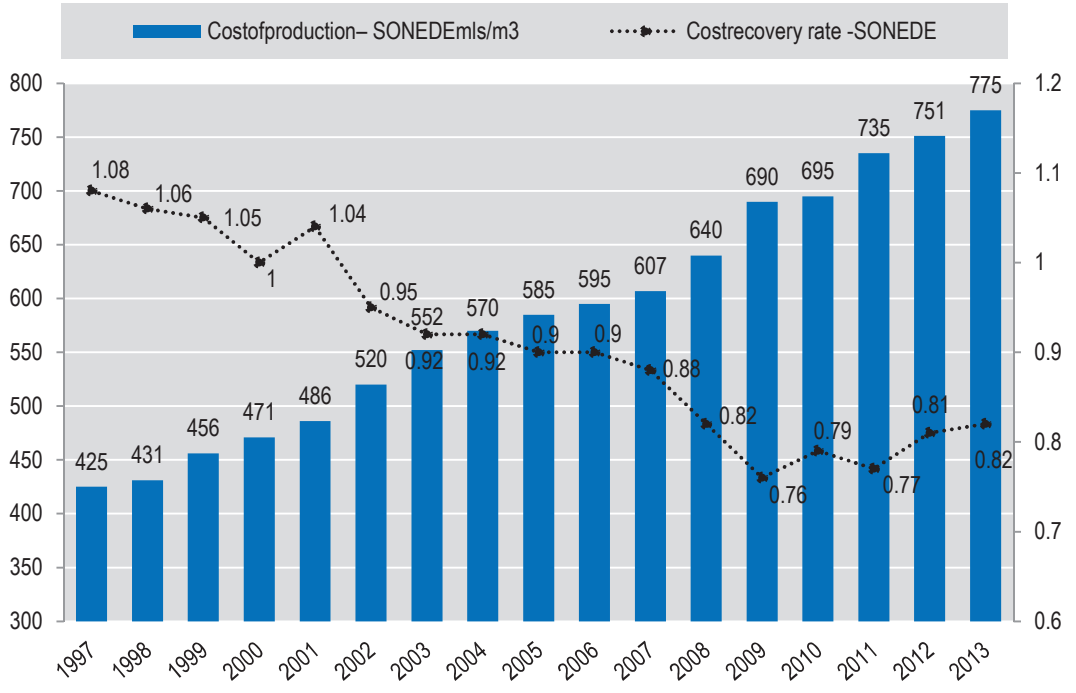
The post-revolution reconstruction now under way, however, offers – indeed imposes – a unique opportunity to rethink the water governance framework and the potential role of private sector participation (PSP) in development of the water sector. With the recasting of the legislative framework (most importantly the inclusion of a "right to water" clause in the new Constitution and the update of the Water Code) and imminent decisions on new economic development models for the country (based inter alia on greater private sector involvement in the Tunisian economy as a whole), now is the time to engage in strategic thinking about PSP in the water sector, and its institutional and regulatory implications, before choices are made. The question of PSP is now receiving greater attention in the country, as demonstrated by the current work on developing a law on public-private partnerships (PPP) and the support now accorded the PPP programme by senior government officials. A sound understanding of the different forms of PSP, their objectives and their potential benefits (given the sector's specific conditions and performance), their modes of application, their challenges and the conditions for their success would allow the water sector to respond fully to the fundamental choices that the country will have to make once the political conditions are in place.

Figure 0.1. **Demand indicators in the Tunisian drinking water sector**



Source: Aquastat, www.fao.org/nr/aquastat, accessed 4 February 2014; World Bank (2014) from the SONEDE database.

Figure 0.2. **Financial sustainability indicators in the Tunisian drinking water sector**



Source: Aquastat, www.fao.org/nr/aquastat, accessed 4 February 2014; World Bank (2014) from the SONEDE database.

Involving the private sector will require a profound change of administrative culture and of approaches to delivering water and sanitation services in the country. This does not mean down-playing the role of the public sector, but rather reallocating government functions and capacities towards the preparation of projects, negotiation of contracts, monitoring of performance, and regulation of services. It will require the development of mechanisms to ensure the transparency of information (as to costs, risks, service quality etc.) and to make it more accessible to the public, as well as mechanisms to ensure the integrity of the budgetary process, value for money in public expenditure, and the settlement of disputes. In particular, the specification and management of government financial obligations and the fiscal risks associated with private financing must follow a rigorous process of disclosure and accountability in order to anchor PSP solidly in the governance of public expenditure.

Some of the functions of regulating services will also have to be reconsidered with a view to making effective use of existing tools, systematising procedures, and ensuring greater customer orientation. In particular, the regulation of water pricing is highly dependent on political will. It should be more solidly institutionalised, with a better technical foundation and more input from users. The independence of operators should also be reinforced by making more strategic use of supervision and transparency mechanisms.

The weak financial viability of operators in the water sector is a major hindrance to involving the private sector, and more generally to the sound health of the sector. While the national water supply and distribution company (SONEDE) and the national sanitation office (ONAS) have experienced sound financial performances in the past, they are today in a tenuous situation: their operating costs have been rising steadily, while water billing rates were increased only sporadically between 1997 and 2010, and did not keep pace with inflation. The planned investments, particularly in developing nonconventional sources and wastewater treatment, are bound to make the financial situation of the operators even more precarious. This situation could discourage PSP, and could more generally induce a vicious circle of deteriorating infrastructure and service quality. To remedy this will require an approach that combines reconsideration of financing sources for the sector – in particular, the pricing and subsidy mechanisms – as well as steps to rationalise costs in the sector. It will also demand a more strategic approach to financial planning for the sector.

A participatory and territorially differentiated approach would seem to be needed, one in which water policy is geared in a more transparent manner to the various levels of government and non-governmental players. Stakeholders' engagement, and in particular that of users and the different regions, will be a critical dimension for the future development of the sector, whatever the modality (public, private, mixed) chosen for managing water services. This is an essential factor for improving service performance, and for gaining public acceptance of the reforms underway and the potential resort to PSP. The sector's financial difficulties demand in-depth consideration and some important decisions on future investments and their sources of financing (including a review of pricing structures) if service quality is to be preserved. In the current context of soaring social aspirations, maintaining support for reforms is crucial to their success. Discussions have shown that there is in fact a strong network of non-governmental organisations (NGOs) that it would be well to involve, directly or indirectly, in consultations with civil society, in addition to the formal mechanisms in place for fostering dialogue among stakeholders. The question of strengthening or adapting tools such as the National Water Board is another pressing issue.

Main recommendations

This report offers considerations and recommendations on three aspects for overcoming the governance obstacles to greater mobilisation of financing in the water sector and to beneficial involvement of private partners in managing water and sanitation services in Tunisia:

1. Understanding the variety of PSP modalities, their objectives and conditions for success, and identifying those most appropriate to the Tunisian context;
2. Ensuring the financial and fiscal sustainability of PSP in the water sector;
3. Improving the mechanisms for transparency and enhancing stakeholders' engagement in order to enlist greater public support.

Understanding the variety of PSP modalities, their objectives and conditions for success

Several possible forms of PSP are now under consideration in Tunisia:

- Involving small-scale private operators to support the *groupements de développement agricole* (GDAs) in rural areas.
- Task-specific service contracts to strengthen bill collection efforts or reduce water losses (or a pilot management contract for a municipality).
- A move to more complex PSP models for sanitation services (shifting from service contracts to "concessions").
- Participation in contracts of the "build-operate-transfer" (BOT) type for desalination or wastewater treatment plants.

The feasibility of PSP depends not only on the complexity of the selected form of PSP, but also, and critically, on the existence of a number of framework conditions and on the willingness of the private partners to assume the risks and commitments inherent in PSP, in light of the return on investment in Tunisia.

To date there has been no in-depth analysis of the lessons from experience with PSP in Tunisia's water and sanitation sector. Such a study, which could be performed by researchers and academics, would provide a solid basis for guiding public action and making strategic choices in the future. Donors could provide support and coaching for such initiatives (for example through the funding of technical assistance programmes), which would make it possible to build upon past experience (successes and failures), to avoid the repetition of certain mistakes, and to provide substantiated and depoliticised responses in support of officials responsible for the sector's governance.

Involving small-scale operators in rural areas is one option that can be considered under certain conditions. The conclusions from ongoing studies of the GDA should offer a useful base for identifying cases where private enterprises could participate, those where the community GDA can be consolidated, and the areas where the SONEDE mandate could be reassessed and reinforced. Private partners could be involved through pilot projects, with the support of the public authorities (rural engineering) for reorganising microsystems. Those partners would in effect be small operators or individual firms whose capacities would have to be supported and their supervision instruments adapted.

The private sector could contribute to the country's strategy to make technical efficiency and service quality a central concern. International experience has shown that PSP can play a role in water service delivery by reorienting the culture of service toward greater technical and commercial efficiency and responding more closely to user demands. Management contracts with competent private sector firms can help achieve this objective. However, international experience shows that their success will demand realistic contract specifications and a common and agreed information base on the state of services and infrastructure against which the operator's performance and progress can be measured and evaluated.

With water and wastewater treatment needs in mind, Tunisia could test the "build-operate-transfer" (BOT) approach to build plants for water (conventional or non-conventional) or wastewater treatment. This could take the form of a pilot project, based on one of the projects already under discussion for testing the feasibility and acceptability of this type of arrangement in the water sector. International experience shows that such contracts can be useful for attracting the private sector and remedying the financing deficit that characterises infrastructure investment. Use of BOTs will require a proper needs assessment as well as parallel measures to strengthen the network so that the partnership will produce real improvements in service quality. The costs involved must be taken into account. Use of BOT arrangements demands both a proper consideration of sources for financing the project over the long term, and mechanisms for fiscal monitoring of the guarantees provided. Experience with the Djerba desalination plant offers a precedent to be considered in developing future projects.

The country's capacity to undertake more complex forms of PSP, involving a greater risks transfer to private partners, a longer term and a direct relationship between the private sector and users, will depend on its ability to implement the necessary framework conditions. In particular, issues with the sector's financial sustainability have recently emerged and if they are not addressed they could jeopardise future investments. These problems could discourage private partners from becoming involved in the Tunisian water sector. They could also become worse if PSP was undertaken without a clear perspective on cost recovery. Furthermore, a successful partnership with the private sector will depend on the country's capacity to guarantee transparency, value for money, and stakeholders' engagement.

Ensuring the financial and fiscal sustainability of PSP in the water sector

This report identifies four areas for strengthening the financial viability of water sector operators and for ensuring preservation of Tunisia's fiscal balance, especially after the introduction of PSP:

1. Strengthening the financial and decision-making autonomy of the historic operators so that they can function as utilities with an operational business model.
2. Ensuring the fiscal affordability of PSP through a transparent budget process that takes into account the subsidies granted to the water sector, and contingent liabilities.
3. Establishing an institutional structure conducive to sound management of PSP, based on a robust and coherent legislative framework, qualified public officials, and seamless co-ordination among key players.
4. Establishing mechanisms to ensure value for money in the public interest.

Strengthening the financial and decision-making autonomy of the historic operators

The transition from a culture of external controls to a culture of internal audit and financial management based on objectives should allow the water operators to function as efficient public institutions and to manage their businesses more effectively, particularly when it comes to decisions on staffing and investment.

However, public enterprises cannot become more autonomous unless water tariffs are commensurate with their real costs. There is sufficient scope for progress at present to encourage a technical approach to price setting. This could be done by developing a price setting methodology that clarifies the process and the criteria for updating water tariffs. Publication of this methodology, and of reports detailing the use of revenues, could foster a better understanding of the link between water tariffs and the sustainability and quality of water service. On the other hand, a study of the economic and social impact of tariffs and of national equalisation could lay the basis for reconsidering the present pricing schedule.

Tariff setting should be accompanied by measures to reduce costs so as to maximise its impact and pave the way for a virtuous circle that will improve public service and consumer satisfaction. Improving the bill collection rate and the capacity to manage funds properly will be essential for restoring the budgetary balance of operators and boosting the quality of their services. Efficiency gains are also needed to reduce water losses and to lower the costs of service. These conditions are essential for raising consumers' trust, which is a key element for the acceptance of price increases. The authorities also have an important role to play in encouraging bill collection rates, particularly those owed by government and public agencies, and in promoting regulation and measures conducive to billing and collection.

Ensuring the fiscal affordability of PSP

State subsidies to the water sector should be reflected in the budget and accounted for in a transparent manner. Cash transfers to water operators should be clearly identifiable in the Tunisian budget. OECD best practices for fiscal transparency stress the importance of providing explicit and detailed data on government expenditures and revenues.

The budget should specify all the contingent liabilities that could flow from commitments in the water sector, to ensure that the risks are managed in the public interest. Given the water sector's current dependence on subsidies and on loans from donors, the government should adopt measures to assess and disclose the contingent liabilities arising from its guarantees to the sector, so as to minimise fiscal risks. It is all the more important for Tunisia to quantify, record and disclose the risks arising from these liabilities, as the country plans to engage in an ambitious investment programme that relies significantly on PPP. Transparent reporting and accounting for these future obligations will allow for better management of the fiscal risks. One possibility would be to issue reports on the government's liabilities each year, in conjunction with the draft budget law.

A strategic planning tool specific to the water sector is needed to supplement the existing budgetary arsenal and the operators' investment programmes. Establishing a medium-term expenditure framework (MTEF), and implementing it in collaboration with all the public authorities concerned, should help the government in planning and applying a sustainable budgeting model. This would require the authorities to adopt a strategic,

long-term vision for the water sector, with a set of medium-term objectives, and to collect information on investment needs and on the costs and the financial resources available to meet those needs. This information could be used to determine whether investment projects are viable under the country's current fiscal constraint, along with alternative scenarios for achieving the sector's strategic objectives. A strategic financial planning exercise for the water sector would help in building a consensus on the required reforms and the selection of projects in the sector.

Establishing an institutional structure conducive to sound management of PSP

If Tunisia is to give serious consideration to the PSP option, the legal framework for PPP will have to be strengthened and made consistent with the existing legislation. The future law on PPP offers a unique opportunity to respond to the legal gaps in the PPP area. That law will also help to define the contractual relationships between public and private entities in a PPP, and will include clauses governing renegotiation and dispute settlement. Introducing the concept of "delegation of public service" into the law would open opportunities for the private sector to manage public services, especially in the water sector.

Immediately after adoption of the PPP law, it will be important to reinforce the administration's capacities in the area of PSP, and PPPs in particular. This could be done by establishing a PPP unit (called for in the draft law on PPP) endowed with appropriate technical, financial and legal expertise. That unit will need to draw upon the PPP skills already acquired within the Prime Minister's Office and the Ministry of Economy and Finance. It will also be necessary to co-ordinate this new institution's mandate with that of existing entities, and to ensure that competencies in the PSP field are relayed to the relevant line ministries and authorities.

A close link must be preserved between the budgetary and planning processes. Co-ordination among the planning and financing entities in the public sector is already well-established in Tunisia and should be retained, focused and clarified in the course of current institutional changes. Once in place, the PPP unit should serve as a "single window", supervising projects and verifying value for money. The Ministry of Economy and Finance should ensure that there is a close link with the budgetary process and verify that projects are affordable.

Ensuring value for money through public-private partnerships

In addition to a reinforced process for setting priorities, a list of investment projects in the water and sanitation sectors should be developed. A list of investment projects selected and endorsed at the highest political level should underpin the country's development strategy, respond to the needs of the various regions, and also be attractive from the viewpoint of the private sector.

There must be equitable rules of the game for selecting between the public option and the PSP option. From this viewpoint, a "public sector comparator" (or some other form of economic analysis for investment projects) should be instituted in order to compare the costs and advantages between PPP and traditional procurement, in a systematic and transparent way. To this end, Tunisia should begin by developing a strategy for gathering data on water and sanitation projects already under way, particularly with respect to the costs, as the first step towards constituting a comparative database.

A competent team must be in place for monitoring projects and engaging with the private partner during the operational phase of a project. This is an essential condition for ensuring value for money throughout the operating phase of the PPP project, and thereby avoiding costly renegotiation. In the case of complex projects, it could be useful in this regard to hire an external expert.

Establishing the conditions for greater transparency and stakeholders' engagement

Accountability is an essential factor if public policies and water projects are to produce the expected results and benefits. In Tunisia, it is the "external" responsibility of government and operators vis-à-vis citizens and users of water and sanitation services as much as the "internal" accountability of the various public agencies and enterprises that must be reinforced. Tunisia has several instruments for public participation, but their field of application and their scope need to be broadened to give civil society the keys to understanding and the levers for action necessary to play a relevant role and to communicate regularly and continuously with the operators. On the basis of OECD experience, there are several (nonexclusive) strategic orientations that could be pursued in Tunisia.

Wider dissemination of databases on water and sanitation services (relating to costs, operators' performance, access, quality etc.) could strengthen the transparency framework needed to involve users as well as promote better understanding of the reality of the water sector in Tunisia at various levels, in rural, urban and periurban zones. Updating the SINEAU water information system could represent a step towards the publication of more complete information on aspects of most direct concern to the public, such as consumption levels, uses, drinking water quality, the wastewater processing rate, trends in service performance, pricing, the results of household surveys and government expenditure reviews. This should also entail an assessment of the quality of the data collection systems throughout the country, and effective co-ordination between the responsible bodies (SONEDE, ONAS, GDA, private service providers, etc.) in order to harmonise existing information and that to come. There should be a system for regular monitoring of the SINEAU to ensure the necessary updates and the widest possible dissemination.

Performance indicators for water and sanitation services should be developed (disaggregated by region to allow local performance monitoring) and made public (through a single and readily accessible site) to encourage the collection of more complete, comparable and sustainable information. The efforts recently made to develop performance indicators need to be consolidated to ensure greater transparency and user involvement. In particular, the development of indicators on commercial performance or user satisfaction could provide backing for consolidating the efforts of the Quality Management Unit of SONEDE. Making those indicators available to the various stakeholders is a *sine qua non* condition for any significant improvement in service performance. In this context, one option that the authorities could consider is to assign the responsibility for monitoring performance to a third party, independent of the main operators.

Communication with users and stakeholders must be treated as a strategic and crosscutting activity on the Tunisian government's agenda, and a priority for operators to improve their customer relations. Dialogue with stakeholders should be a key feature of the new 2050 water sector strategy and it should be part of an annual sector review

framework, which is crucial for setting the direction and targets of water policy in Tunisia. That dialogue should be based on meaningful tools and financing, for example in the framework of donors' technical assistance programmes. Citizens are demanding stronger capacities and communication tools on the part of service providers and government, and this will require a series of specific actions and educational efforts to involve all stakeholders in water governance: policymakers, beneficiaries, users, civil society organisations, water experts and professionals. The first step must be to clarify the target audience in terms of issues and to understand better the expectations of stakeholders as well as how they are communicated (newspapers, the social media etc.) in order to develop proactive communication strategies and institute consultation and dialogue tailored to their needs. Strengthening the communication divisions of SONEDE and ONAS would enhance their capacity to respond to consumers' complaints, for which purpose they could establish a customer service department in order to better anticipate customer needs and to understand the evolving context.

NGOs have an important role to play in making the approach to water and sanitation services more open and inclusive in Tunisia. In fact, Tunisia has a highly developed fabric of NGOs, and although few of them are focused specifically on the water sector there are numerous working groups that, under the leadership of water sector experts, are coming up with some interesting ideas in support of the ongoing reform process. Structures of a more official nature, such as the Tunisian Consumer Defence Organisation (ODC) should also play a role as interfaces between consumers and service providers, including private ones, so as to ensure that users' complaints and concerns are taken into account and also to help service providers respond appropriately to these expectations. This is particularly important because operators such as SONEDE do not at this time have a customer service unit worthy of the name. Moreover, incentives are needed to encourage public and private agencies to conduct satisfaction polls and consumer surveys and to improve service delivery accordingly.

Specific territorial specificities need to be taken more carefully into account to ensure that water policies are in line with needs and capacities at the local and regional levels, now that the country is pondering further decentralisation. In Tunisia, the municipalities and *gouvernorats* are more attuned to the realities of their own territories, whether in terms of resource availability, climatic conditions, or the expectations of the local population. Subnational authorities offer a "window" for the central government on the territories, and as such they should be accorded prerogatives, together with the necessary human and financial resources, to play a more active role in defining water policies and in regulating water supply services, in addition to their current implementation role. The Tunisian government could consider boosting the representation of subnational authorities on the National Water Board and experimenting with pilot projects in a few selected cities, as ways of creating opportunities for intermediation, strengthening co-operation among public agencies, and engaging all levels of government in a common and shared approach to the water sector.

Chapter 1

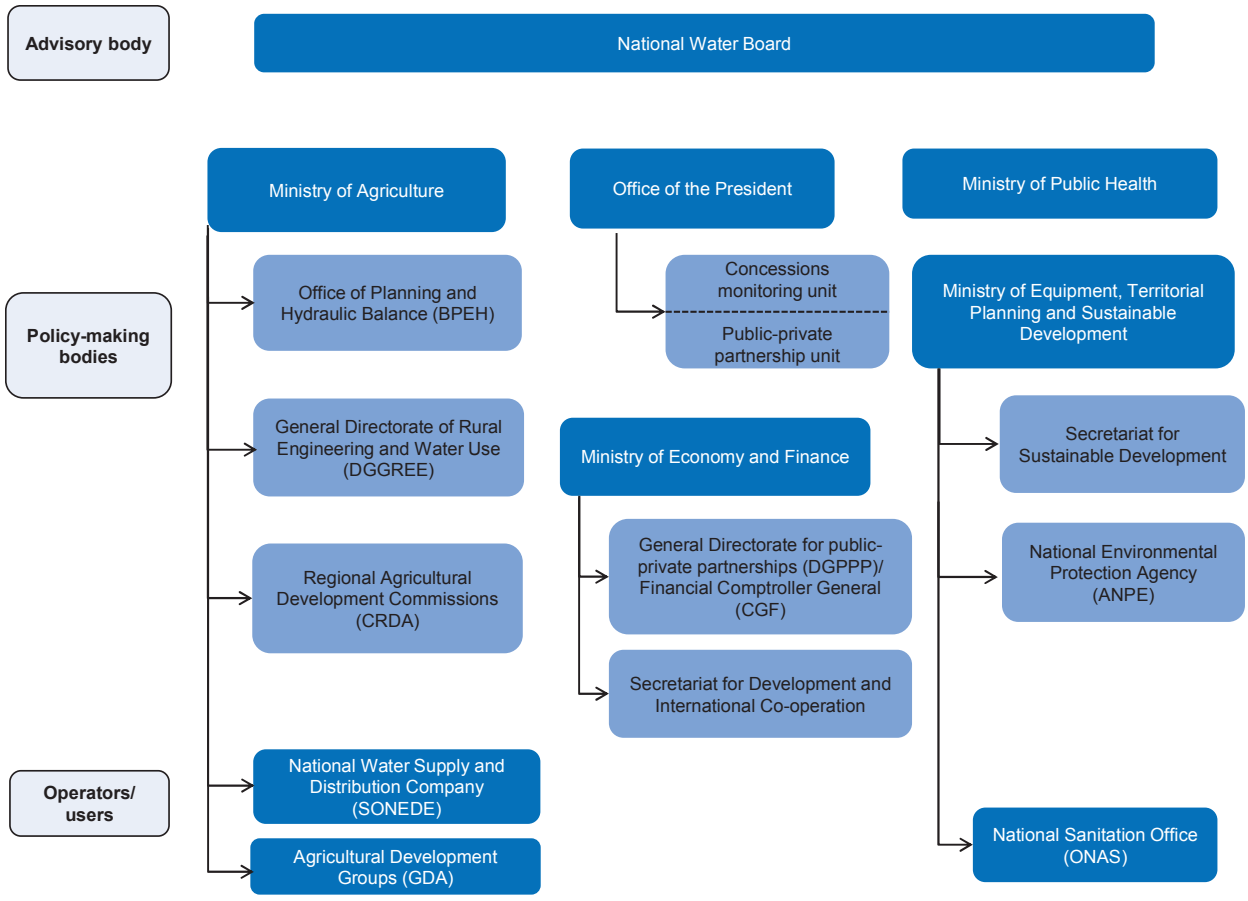
Governance challenges in Tunisia's water sector

This chapter examines the main governance challenges relating to private sector participation (PSP) in the water and sanitation sector in Tunisia. It focuses on five pillars. First, it presents an overview of the various institutions active in the water and sanitation sector and in the PSP field. The second section summarises the country's experience with PSP in the water and sanitation sector, and indicates areas where such participation could be considered in the future. The third section contains a description of the political, legislative and regulatory framework for the water and sanitation sector and for PSP in Tunisia. The fourth section discusses the financial sustainability of the sector. Finally, the last section analyses the mechanisms for transparency and accountability, as well as user involvement.

Institutional roles and capacities

The institutional framework, both for the water sector and for private sector participation, is in transition

Figure 1.1. **Institutional framework for PSP in Tunisia's water sector**



Source: Prepared by the authors on the basis of data in Annex 1.A1.

Since the creation of a national corporation in 1947, the water and sanitation sector has been highly centralised in Tunisia (Touzi et al., 2010). The institutional organisation for the sector is structured around the Ministry of Agriculture for water policy; the Ministry of Equipment, Territorial Planning and Sustainable Development for sanitation policy; and two historic public operators, *Société Nationale d'Exploitation et de Distribution des Eaux* (SONEDE), responsible for water services since 1968, and the *Office National de l'Assainissement* (ONAS), in charge of sanitation services since 1974 (see Annex 1.A1). The other public entities with responsibilities in the water and sanitation sector, including PPP, are the Ministry of Economy and Finance, with the General Directorate for Public-Private Partnership (together with the *Contrôle Général*

des Finances, CGF) and the Secretariat for Development and International Cooperation, the Prime Minister's Office, and the Ministry of Public Health. The subnational levels of administration, such as the *gouvernorats* and the elected local authorities such as the municipalities, have little responsibility either in terms of setting sector policies or regulating or delivering services (see Annex 1.A1 for a mapping of competent institutions and their principal functions in the sector).

However, a possible move to some form of decentralisation is currently under discussion in Tunisia, and this could have implications for the water sector. Given the sharp disparities among regions in terms of water resources (especially between the North and the South), levels of demand, population size, and quality and continuity of service, the question of whether some of these functions could be better handled at the local level has arisen in recent policy discussions. A move to decentralisation could certainly help to improve the attention paid to users in the delivery of services, and could enhance the autonomy of local governments as well as the management of PPP projects (EBRD, 2011b). The recent adoption of a chapter on local authorities in the Tunisian Constitution (articles 128-139) has laid the markers for a decentralisation process that will lead to a better distribution of responsibilities and resources among the different levels of government, namely the central government, the regions, the departments and the municipalities. It will guarantee the administrative and financial autonomy of the local authorities on the basis of the subsidiarity principle, which also encourages citizen participation. Yet, as the Constitution stipulates, the creation or transfer of responsibilities from the central authority to the local governments must in each case be accompanied by a commensurate transfer of resources. Thus, the management of water services in Tunisia, in the context of the ongoing reform, could provide an example of participatory democracy, based on the principles of open governance in order to ensure the broadest possible participation by citizens and civil society in the preparation of projects (including PPP projects) and their execution. Similarly, the comprehensive review of the legal framework for the water and sanitation sector provides an opportunity to discuss the scope of decentralisation and the level at which responsibilities should be assigned (for example, the *gouvernorats* or the municipalities).

At the national level, Tunisia's renewed interest in PSP, and in PPP in particular, has been accompanied by the introduction of a new institutional architecture that is not specific to the water sector. The Prime Minister's Office is leading the effort to adopt a legislative and institutional framework for PPP in Tunisia. It is still a work in progress. The main body responsible for co-ordinating PPP and concessions is the Concessions Unit (USC) established in November 2013. It is expected that the USC's principal duty will be to help the public authorities in preparing, tendering and monitoring concessions, and in particular to prepare guidelines and models, while strengthening the capacities of public officials and encouraging concession projects. The USC could be seen as the predecessor of the future PPP Unit, called for in the draft PPP law of 2013. However, the USC has only an advisory role, and this could compromise its influence on the tendering of projects. The Ministry of Finance also contains the General Directorate for Public-Private Partnership (DGPPP), the main role of which is to prepare legislation relating to the tax, accounting, financial and competition aspects of PPP and to monitor the preparation and negotiation of PPP projects (Ministry of Economy and Finance, undated). The role of the DGPPP will be defined in more detail with promulgation of the future PPP law.

Implementation of a PSP programme will require a review of the traditional tasks of the Tunisian administration and operators, as well as the development of new competencies. Generally speaking, there is a need to develop capacities for project preparation, contract award, performance monitoring and dispute settlement, and this is particularly true in the water sector, where there has been little experience to date with PSP. The areas that need reinforcement include the collection of information and the monitoring of service delivery using performance indicators. There is still a question as to which authority should be responsible for producing and disseminating this information. Planning capacities, particularly for investment, must also be reinforced. Weisenberger (2011) estimated that 47 of the 128 wastewater treatment plants were under- or over-dimensioned. In 2012, the ONAS reported that 25 wastewater treatment plants were hydraulically saturated throughout the year, and 14 purification plants (STEP) were periodically overloaded, either during the summer or during seasonal spikes in industrial activity because they had exceeded their life expectancy (their minimum age is 15 years) and their extension and rehabilitation were either programmed or under study (ONAS, 2013). Institution of the PPP programme also presupposes measures to ensure a shared understanding of what PPPs are all about and what they imply in terms of administration. Senior government officials (including the Prime Minister) have supported the PPP programme, but it remains to rally support at all levels of government in order to guarantee a common approach. Lastly, consideration needs to be given to the type of tools and government services best suited to building the necessary capacities.

It is still an open question as to whether the PPP capacities in place at the national level will complement existing capacities in the water sector. The legislation should be clarified with respect to the allocation of responsibilities among the institutional sectors for PPP functions such as project planning, project needs assessment, assessment of value for money in tendering, etc. As well, the tools for horizontal co-ordination, especially between the oversight ministries and the ministries responsible for PPPs, should be clarified. With respect to the Zaarat desalination project, it was planned to institute an inter-ministerial steering committee to evaluate and improve the documents and reports prepared by the engineering consultant of SONEDE responsible for monitoring the project (African Development Bank, 2009). That committee was to include a member from each of the following ministries: Ministry of Agriculture and Water Resources (MARH), Ministry of Equipment, Territorial Planning and Sustainable Development, Ministry of Economy and Finance, Secretariat of Development and International Cooperation, Secretariat for State Properties (MDEAF) and the Directorate General of Planning (DGP) in the Prime Minister's office. The idea was to facilitate co-ordination among the different public authorities, and it could constitute an interesting pilot experiment for future PSP ventures.

Public services are organised around two big operators, whose business model has reached its limits

Service delivery in Tunisia is organised around two big national operators, ONAS and SONEDE, and they have played key roles in ensuring the quality of coverage in the country. SONEDE was created by Law 68-22 of 2 July 1968 as a public enterprise, and ONAS was created by Law 73/74 of 3 August 1974 (amended by Law 93/41 of 19 April 1993). While SONEDE is theoretically responsible for the production, treatment and distribution of drinking water across the country, these activities are still limited in rural areas. In 2012, SONEDE was serving 49.7% of the rural population, and the General Directorate of Rural Engineering (within the Ministry of Agriculture), through

the local irrigation agriculture groups (GDA) was serving most of the remainder, or 43.7% of the rural population (SONEDE, 2013a).[1] SONEDE is responsible for operating and maintaining the water treatment stations as well as the water distribution and transportation networks as far as the final users. ONAS collects and treats wastewater and runs the sanitation network and installations. ONAS has no activities in rural areas, apart from one pilot project.

The national operators, and SONEDE in particular (World Bank, 2009), have performed well in the past, in both operational and financial terms, but since the beginning of the century their performance has deteriorated. In 2012, for example, there were water service interruptions in at least six *gouvernorats*. This situation is due in part to economic circumstances[2] and it applies to all Tunisian public enterprises because of the particular situation prevailing in the country since the revolution. However, there is a real risk of a more permanent deterioration in the water and sanitation systems, as evident in the recent worsening of SONEDE's performance indicators. For example, the rate of real (physical) losses[3] as a percentage of total water output rose from 17.7% in 2008 to 21.1% in 2012 (SONEDE, 2009; 2013a). Another revealing indicator, the number of leaks, more than doubled between 2008 and 2012 (31 leaks per 1000 inhabitants in 2008 versus 65 in 2012) (SONEDE, 2009; 2013a).

The bottlenecks holding back the efficiency and performance of the two operators can be traced to many factors, including the shortcomings of the financial and organisational model and the sector's traditional operating modalities. The two operators were instituted as autonomous public enterprises by the legislation creating them. Article 1 of Law 68-22 of 2 July 1968, in particular, gave SONEDE the status of "industrial and commercial-type public enterprise of a non-administrative character endowed with financial autonomy". Yet that financial autonomy has been progressively compromised. For example, the legislation requires approval by the Ministry of Agriculture before SONEDE can incur any debt, effectively giving the government administrative control over SONEDE's activities. Decree 2002-2197 of 7 October 2002 specifies the exercise of supervisory control over public enterprises, including SONEDE and ONAS, as follows: monitoring of the management and operations of these enterprises to ensure consistency with general government guidelines; approval of programme contracts and monitoring of their execution; approval of budgets and monitoring of their execution; approval of financial statements for public enterprises that do not have a general assembly of shareholders; approval of pay scales and salary increases awarded to agents of public enterprises; approval of arbitration agreements and transactions settling disputes. Consequently, all recruitment of staff requires ministerial approval (Water and Sanitation Programme, Africa Region, 2008) and operators cannot hire external consultants without the Ministry's approval (World Bank, 2009), a situation that can potentially lead to bottlenecks. Executive staff are appointed by the political level.

Capacity shortages in the rural water and sanitation sector

SONEDE's activities are supplemented by around 1 400 GDAs, responsible for operating rural water supply systems.[4] SONEDE serves 100% of urban zones and 49.7% of rural zones (SONEDE, 2013a). The General Directorate of Rural Engineering and Water Supply (DGGREE), within the Ministry of Agriculture, sees to the construction of infrastructure, the management and operation of which it then delegates to the GDAs (Touzi et al., 2010). The GDAs are staffed by volunteers, and not all are capable of providing the quality of service expected by users. For example, while the GDAs can handle small-scale systems, they are less efficient when it comes to more complex supply

systems. According to Gabbouj (2011),[5] only 20% of the GDAs are performing satisfactorily, while the remainder are ranked as average to weak. Although these boards have been in existence since 1999,[6] there is as yet no platform in place that would allow the GDAs to share their experience and practices in water and sanitation management and thereby strengthen their capacities. An attempt to this end is now under way in the irrigation sector, and it may yield some lessons. In addition, rural residents are increasingly demanding individual connections and a quality of service comparable to what SONEDE is offering in the cities, and there is now pressure to extend the SONEDE network in the countryside (SONEDE, 2013b). Yet SONEDE has little incentive to extend its drinking water network in rural areas because of the attendant high costs and low revenues (the price charged by SONEDE in rural areas fall short of real operating costs) (SONEDE, 2013b).

There is no entity responsible for rural sanitation services, and this leaves an institutional void for this subsector. Law 74-73 creating the National Sanitation Office (approved on 3 August 1974[7] and amended by Law 93-41 and 19 April 1993) confers upon ONAS the task of supervising sanitation "within all communal boundaries and in tourism and industrial development zones" (Article 7, Law 93-41), but the interpretation of the text remains ambiguous. In practice, ONAS is responsible only for collective sanitation, of which there is little in rural areas, and there is no public agency to oversee individual sanitation solutions (SONEDE, 2013b). ONAS has produced a strategic study for rural sanitation, and pilot projects have been financed by the World Bank (PISEAU I). The GDAs manage some shared communal installations and they connect households to the sanitation system, but these activities are limited and pursued in an ad hoc manner (Weisenberger, 2011). Some communes manage sanitation facilities, but this practice is arbitrary and haphazard.

The authorities have launched some initiatives, jointly with donors, to assess the strengths and weaknesses of the GDAs, to strengthen their capacities and to make them more professional. One of those initiatives involves the hiring of technical directors, often young graduates looking for employment, to run the GDA, and picking up the tab for half their salary. The German development bank (KfW) has conducted a study evaluating the legal status of the GDAs and ways of strengthening their autonomy in order to develop their capacities, and this led to development of a strategy for putting the GDAs on a permanent footing. The Ministry of Agriculture is planning to subcontract the drinking water feeder systems to private individuals or small enterprises, and this could encourage PSP in rural areas. An institutional study is also underway to clarify the problems in rural areas and to ensure the sustainability of the systems in place.[8] It includes a field survey to identify the operating and exploitation problems of SONEDE and the GDAs and to understand their expectations and their technical and financial capacities to guarantee water service.

Overview of Tunisian experience with private sector participation in the water and sanitation sector

Private sector participation is limited to service and management contracts

PSP in the water sector is still limited. In the 1920s and 1930s, four cities out of five with drinking water service were under a concession contract with private enterprises (Touzi et al., 2010). Such arrangements were however abandoned by mid-century, and reappeared only in the 1990s. Since that time, PSP in the water and sanitation sector in Tunisia has been restricted to management and service contracts and a few (aborted) BOT

projects for wastewater treatment plants (see Annex 1.A2). Although there are signs of political will to encourage greater PSP, especially in the water sector, there is no clearly defined strategy setting out the expected role of the private sector, nor any investment programme defining opportunities in the sector.

When it comes to sanitation services, PSP figures in the ONAS development strategy, but it has so far been confined to service contracts. In 1993 ONAS launched a series of studies on the potential Tunisian market for service delivery and the feasibility of different forms of PSP in Tunisia (Ghodbane, 2014). PSP in sanitation services really got underway in 1996, on the basis of the PSP strategy prepared by ONAS in 1995. By the end of 2013, the private sector was operating 18% of the ONAS distribution network, representing 2 647 kms of mains, 146 pumping stations, and 16 wastewater treatment plants (Ghodbane, 2014). If ONAS keeps to its objective of delegating 40% of the distribution network and 50% of the treatment stations to private enterprises by 2020, the private sector share in the sanitation sector should more than double in the coming years. The contractors may be local subsidiaries of foreign firms (Someden, for example, is a Tunisian subsidiary of a French firm, Eaux de Marseille) or local enterprises (SEGOR, Sté CHEBBI, Sté AMEUR PLASTIC, Vatech Wabag Tunisie, BONNA-GTCAB) (written contribution from ONAS, 2013). Table 1.A2 provides a list of PSP projects now underway. The private sector is today handling nearly all the studies (feasibility, environmental impact, execution, financial), engineering works such as construction of infrastructure, treatment station equipment and pumping stations, extension of networks and related works, home connections, and water conservation works and equipment supply (Gabbouj, 2011; Office National de l'Assainissement, 2013).

Following the revolution, the Tunisian government gave ONAS a clear mandate (approved by the Council of Ministers in September 2013) to pursue PSP in the sanitation sector. Since then, ONAS has taken a new approach to PSP, launching several PPP projects under the concessions regime (2008). In this context, ONAS was to sign an assistance contract in March 2014, financed by the Arab Financing Facility for Infrastructure (AFFI), to support implementation of new management mechanisms and the signature of operating concession contracts by the end of 2015. This approach involves regrouping some five-year subcontracts in place, with ONAS still operating the infrastructure, in order to transform them into "operating concession" contracts, a form of leasing arrangement (*affermage*) that would turn over the management of infrastructure to the private sector for average periods of around 10 years, without any investment obligation. This plan should allow the 21 existing contacts to be aggregated into 5 to 7 regional projects, with the expectation that their scale should be sufficient to permit *joint ventures* between local and international firms. It is estimated that 1.5 million people could benefit from these new projects, amounting to total annual turnover of some EUR 11 million. The first contract could be signed by the end of 2015, and would cover the creation of two network segments of 2 000 kms, a treatment plant and pumping stations.

By contrast, SONEDE and the DGGREE have not made any real attempt to date to use the private sector to supplement their activities (SONEDE, 2013b). When it comes to water supply, PSP has been used only on a small scale. SONEDE has ceded certain functions to the private sector, such as inspections for leaks (34% in 2011) (SONEDE, 2011). Subcontracting has been used particularly for new connections (74.9%) and the extension of distribution channels (99.6%). According to SONEDE, this small-scale experiment has not yielded the expected results (although there has been no cost-benefit evaluation with respect to the operating conditions of such subcontracting). Like ONAS, SONEDE also has spin-off programmes (*essaimage*) intended to encourage the start-up of

enterprises that will take responsibility for specific projects in the water sector. Most of these projects involve the maintenance of infrastructure and networks, and the installation of new home connections and distribution channels. SONEDE contributes to financing the enterprises created, along with the Banque Tunisienne de Solidarité (BTS) and other financial institutions. The spin-off approach was initially promoted by Law 2005-56 of 18 July 2005.[9] At the end of 2011, 18 projects had been launched under the spin-offs programme, with an investment envelope of TND 7 million (around EUR 3 million) (SONEDE, 2011).

The water and sanitation authorities have not made use of more complex PSP approaches, such as leases or concessions. Nor has there been any resort to contracts of the BOTT ("*build-operate-train-transfer*") type under which skills can be transferred. In 2010, for the first time, the government drew up and put to tender a plan to build a desalination plant under a BOT arrangement in Djerba. The 20-year contract, valued at EUR 70 million (Public-Private Infrastructure Advisory Facility, 2011) was awarded to a consortium formed by Baferi, a Spanish firm, and Princesse El-Materi Holding, a Tunisian firm headed by Sakher El-Materia, the son-in-law of then-President Ben Ali. The implementation agreement was to be signed on 17 January 2011. With the fall of the Ben Ali regime, the project was cancelled, thus cutting short any move toward new BOT contracts.[10] The project was then revised as a conventional public procurement contract. The present plan is that SONEDE will build and operate the station, with a loan of EUR 60 million from KfW. There are also signs that PSP is under consideration for the Zaarat plant (Box 1.1).

Opportunities for private sector participation in Tunisia's water and sanitation sector

There are numerous opportunities for involving the private sector in water services in Tunisia. More than 80% of the country's surface water is found in the North, and to enhance water security the government has promoted the development of water transfer infrastructure and nonconventional sources of supply, such as reusing wastewater and desalinating seawater and brackish water. In 2001, the Water Code was amended to allow PSP in the development of nonconventional water sources. SONEDE currently has a brackish water desalination capacity of 74 100 m³ per day,[11] while private operators (primarily hotels) have a capacity of 44 000 m³ per day (Bucknall and Louati, 2010). Desalinated brackish water now accounts for 2.2% of SONEDE's water production (SONEDE, 2013a). Private operators are running a few small facilities to meet private needs such as those of chemical groups, hotels and certain manufacturing industries as well as high-end agricultural production, in particular fresh produce destined for regional export markets (Gabes) (World Bank, 2004). According to SONEDE's national investment programme of January 2014, developed with World Bank support, the agency's strategic orientation for the coming years will focus on upgrading water quality, expanding production capacities, deploying water transfer projects among Tunisian regions, and building seawater desalination plants at Sfax, Kerkennah, Zaarat and Djerba (Annex 1.A2).

The government also has initiatives under way to involve the private sector in managing the water and sanitation system in rural areas. Although 93.4% of the rural population has access to the water supply system, only 45.5% of households have direct connections to the network (SONEDE, 2012). The government has expressed interest in using PSP in rural areas, but it has not moved beyond the exploratory phase in this regard. Three or four pilot projects for managing rural drinking water supply systems via the

private sector are planned for the period 2013-18. The estimated turnover for each project is in the order of TND 100 000 (around EUR 46 000, OECD questionnaire). The authorities have noted, however, that the success of such projects will require training for the enterprises concerned.

Box 1.1. **The seawater desalination plant at Zaarat**

SONEDE is conducting a study for the development of a seawater desalination station at Zaarat. The question of how it will be contracted (as a conventional government contract or BOT) is also under study. The plant will have a capacity of 50 000 m³ per day and will provide water with 0.5 g per litre of salinity, which would then be mixed with water currently distributed to provide drinking water that conforms to international salinity recommendations. The objectives of the project are: *i)* to boost the availability of water resources in the south of Tunisia, where groundwater is not renewable and current resources are limited; *ii*) to avoid the high costs associated with transferring water from the north of the country; *iii*) to improve know-how in the selection of concessionaires; and *iv*) to encourage private operators to invest in Tunisia. Work on the study, by the Eurostudios-Studi group, began in September 2012. As of March 2014, no decision had yet been taken on the form of contract.

Source: African Development Bank (2009), "Requête de finance, Projet de dessalement de l'eau de mer par voie de concession en Tunisie", Fund for African Private Sector Assistance (FAPA).

Lessons from Tunisia's experience with private sector participation: The pre-conditions for a successful partnership

According to ONAS, service quality in areas operated privately improved by 60% to 80% thanks to higher cleanout rates. The factors explaining this outcome include the observance of contractual clauses which require an annual infrastructure cleanout rate, periodic operational planning and maintenance of infrastructure, and the appropriate allocation of means and resources to projects and in the programming of contractual deliverables (Ghodbane, 2013). ONAS also estimates that the average operating cost of the distribution network is 40% lower with PSP.

However, PSP projects that require private investment are more difficult to implement in the Tunisian context. For example, there were a series of delays in starting work on the BOT contract for a new wastewater treatment facility in Tunis. The reasons cited include a change in the location of the project and an inappropriate legal framework (Ministry of Development and International Cooperation and World Bank, 2004). Prequalification for the project was completed in 2008, but there was a further delay of two years caused by problems related to the scope of the project. In the end, ONAS was still awaiting final proposals in 2010 (Global Water Intelligence, 2010). The BOT contract for the Djerba desalination plant also experienced delays when an inter-ministerial committee changed the proposed financing structure for bids, moving from a debt-to-equity ratio of 75/25 to a ratio of 50/50 (Global Water Intelligence, 2009).

So far, the Tunisian authorities and their development partners have concentrated on rehabilitation and expansion projects, but the efficiency of the system and the services as well as their maintenance also need to be strengthened. On the sanitation front, for example, priority has been given to expanding the coverage rate, and most of the funding has been allocated to the construction of new wastewater treatment plants, to the detriment of maintenance of the existing facilities. According to Weisenberger (2011), ONAS has taken a mechanical approach to the construction of treatment plants, without

systematically adapting the facilities to the geographic and climatic characteristics of each region. While the ONAS budget earmarked for rehabilitation is rising (from 28% of the total ONAS budget in 2013 to 30% in 2014), this does not really provide an indication of the portion allocated to maintenance. It will be important, then, to examine the extent to which the construction of new plants could be supplemented by better operation of existing facilities, and better adaptation to local conditions.

Moreover, there has not been any in-depth consideration of the lessons to be drawn from past successes and failures with PSP in the water sector in Tunisia, as a way of providing a neutral and independent factual basis for making future policy decisions. Given the mixed record of previous experiments with PSP and the current thinking about the direction to take in this area, an evaluation of the pros and cons of past experience could provide a more solid guide for future projects. Such an exercise should be undertaken by third-party stakeholders (academics, for example), and should offer an independent, fact-based analysis of past experience.

The political, legislative and regulatory framework

A strategic vision is needed for the years to come

Despite an apparent centralisation, the national authorities are finding it difficult to impose a strategic view in the water sector. At the present time there is no clear sector strategy regarding the supply of water and sanitation services (see Annex 1.A3). A water sector strategy to 2030 was formulated in 1998 (Ministry of Agriculture and Water Resources, 1998) and a new strategy to the horizon 2050 is now being developed, without any clear indication as to when it will be finalised and adopted. A previous study by the OECD and Global Water Partnership-Mediterranean (GWP-Med) identified the need for a clear, up-to-date and comprehensive strategy for the water sector, covering the pertinent subsectors and issues (water resource management, drinking water supply, sanitation, water quality and conservation), physical infrastructure (wastewater treatment plants, distribution systems, boreholes etc.) and non-material dimensions (establishment and implementation of an institutional policy, human resources etc.). This strategy should be accompanied by a concrete and time-bound action plan. Today, because of the country's political transition, the sector strategy is being reformulated. A strategy for a green economy, including the water sector, is also under development (OECD, 2012). A National Climate Change Strategy (SNCC) has been developed as well, and it provides a framework for considering the risks and challenges facing the water sector, and a context for the potential contribution of PPP, but it has not yet been adopted.

The water sector strategy to 2030 places the emphasis on long-term management of water resources (over the period 2010-30), an inventory of existing resources, and projections of future supply and demand. However, there is less attention to drinking water and sanitation services. The 12th National Development Plan (PND 2010-14) gives priority to sanitation projects such as networks, pumping stations, improved quality of sanitation services, and expanded wastewater treatment facilities in urban and rural areas. The 12th PND sets the twin objectives of expanding drinking water access in rural areas to 98.5% in 2014, and sanitation service coverage to 88.4% (Ministry of Development and International Cooperation, 2010). While this goal reflects the relatively low rate of access in rural areas, there is a risk that urban districts will not have the same incentive to improve services. In particular, in a context where urban areas already have nearly universal access, the specific objectives should relate to the cost/effectiveness ratio and the reliability of service delivery, as well as the quality of service.

A shifting legislative framework

The Water Code, first adopted in 1975 and amended in 1987, 1997 and 2001, is the principal legislative tool for the water and sanitation sector (Annex 1.84 offers an overview of the legislative framework). The Water Code is in need of further revision, but no timetable has been established for this task. The right to water has been officially recognised in the new Tunisian Constitution: Article 44 provides that "the right to water is guaranteed. It is the duty of the State and of society to preserve water and to rationalise its use." In fact, the emphasis is now on the responsibility of government and the components of society to preserve the country's water resources and to manage them properly.

The legislative framework for PPP is also in transition. A law on concessions, adopted in 2008, was the first attempt to define a policy for PSP in various sectors, but it focuses on a capital-intensive, high-risk concession model that is not necessarily suited to the Tunisia water sector. The concessions law was recently amended by Decree 2013-4631 of 18 November 2013, modifying and supplementing Decree 2010-1753 of 19 July 2010, which spelled out the conditions and procedures for granting concessions. Pending adoption of the PPP law, this decree broadens the scope of concessions and authorises a concessions monitoring unit to evaluate the financial, environmental, technical, legal and social aspects of projects, a role that will subsequently be assigned to the PPP Unit. At the same time, an advisory commission comprising members of various ministries, including the Ministry of Economy and Finance and the Ministry of Equipment, Territorial Planning and Sustainable Development, has been established. It is monitoring all the stages involved in concessions, from the reception of bids to the negotiation of contracts.

The draft PPP law, now under examination in Parliament, provides for the possibility of a broader range of modalities for involving the private sector. In particular, it foresees the delegation of public services, which is of direct relevance for the water sector.[12] The draft law provides for simplified PSP procedures for small-scale projects, but the actual thresholds are still under discussion. Energy, telecommunications and sanitation have been suggested as pilot sectors once the law is ratified. Although the PPP legislation represents in itself a strong signal of political commitment to PSP, the government will need to specify how the updated water sector strategy, the updated water code, the concessions law, the future PPP law and the proposed strategy for a green economy will complement each other and will help to clarify the framework for PSP in the water sector.

There are some gaps in the centralised regulatory framework

Tunisia is among those Middle Eastern countries that have done the most to strengthen the quality of regulatory policy as a whole (OECD, 2013b). For example, the country has decided to publish all new legislation at a public Internet site[13] within three days of promulgation. Prime Ministerial Circular No. 14, published on 27 May 2011, also includes provisions governing the procedures for preparing legislation. Its objective is to enhance the quality of legislation in all sectors, including water and sanitation, and to reduce administrative burdens for private enterprises. Although some elements of the regulatory framework for water and sanitation, such as drinking and wastewater treatment standards, are well defined,[14] there are still some gaps in this sector and shortcomings in the formulation and implementation of certain regulatory functions. These gaps relate in particular to technical grounding (notably for the tariff regulation function) and the transparency and accountability of services vis-à-vis users.

Pricing decisions are slow to be taken, and tariff setting rules lack transparency and stability. The pricing policy for water and sanitation services is based on the "polluter pays" principle and on solidarity across regions and consumption bands. Tariffs are set at the national level, and the Council of Ministers, chaired by the Prime Minister, has the final say on tariff amendments proposed by the companies. Water and sanitation charges are set by the government after reviewing requests for adjustment or restructuring of tariff schedules submitted by the operators. Operators must submit substantiated documentation for tariff revisions to their responsible ministry, which in turn present them to the Council of Ministers for discussion (World Bank, 2009). For example, SONEDE submits its proposed tariff amendments to the Ministry of Agriculture, which may accept or reject the proposal. For validation, the Ministry may call a meeting of the Council of Ministers, which will take the final decision by issuing a decree co-signed by the Minister of Agriculture and the Minister of Finance, and approved by the Prime Minister (Touzi et al., 2010). According to its programme contract with the government, ONAS can update the sanitation charge periodically and recalculate the connection fee in light of the trend in the general price index. In effect, it seems that the government never agrees to a simultaneous increase in sanitation and water service charges, a situation that generates a degree of competition between SONEDE and ONAS in making their submissions (World Bank, 2009).

Quality standards should be updated and enforced more effectively. Drinking water standards need to be adjusted to cover all sources of water and to reflect current conditions in the sector.[15] To guarantee the quality of drinking water distributed and to ensure more ecologically sound treatment processes, SONEDE has implemented an integrated management system following the benchmark standards ISO 9001-2008 and ISO 14001-2004.[16] However, SONEDE has drawn criticism from the *Cour des comptes* (the national audit office) because it was applying only 30% of the standards concerning control of toxic substances in drinking water, thus posing a risk to public health.[17] Moreover, in the *gouvernorats* of Tozeur and Medenine, 6.3% and 9.5%, respectively, of water samples subjected to bacteriological analysis were found unfit in 2012, above the limit authorised by the Tunisian standard and the 5% threshold tolerated by the World Health Organisation (SONEDE, 2013a). There seem to be problems in enforcing quality standards with respect to wastewater treatment and discharge: in fact, the majority of polluters may be State-owned companies that are difficult to prosecute (Global Water Intelligence, 2012). Quality standards relating to wastewater treatment and discharge are established by the Ministry of Equipment, Territorial Planning and Sustainable Development. In all, there are 10 distinct legislative sources dealing with effluents, sludge reuse, control, sampling and compliance.[18] The National Environmental Protection Agency (ANPE) is responsible for enforcing laws governing the discharge of wastewater, while the Ministry of Equipment, Territorial Planning and Sustainable Development deals with violations, together with the line ministry concerned.

A database, known as SINEAU, is being developed, but it relates only to surface and groundwater resources, control of water pollution, and soil resources and their degradation. At the present time there is no equivalent database for water supply and sanitation (SEMIDE, 2013). SONEDE has called for proposals for a geographic information system that would handle the technical aspects of the drinking water system (SONEDE, 2011). ONAS and SONEDE both have their own information systems for basic management purposes such as accounting, procurement and inventories, but they are not well integrated (World Bank, 2009). These institutions are now in the course of preparing a pooled business information system. According to SONEDE, an initial

version containing the detailed design of this new system was submitted in June 2013, and finalised in October 2013. To date, there is no authority responsible for assembling and managing information on PSP in the water sector (OECD questionnaire).

The monitoring of operators' performance needs to be strengthened with more transparent information. In Tunisia, five-year programme contracts signed by ONAS and SONEDE and their responsible Ministry have traditionally been the main mechanism for determining performance objectives and mutual obligations between operators and government. These programmes do not actually constitute incentives to improve the quality of service and they do not contain any performance indicators. They set objectives, such as rates of coverage and productivity, and they determine the obligations both of SONEDE and ONAS and of the government. These programme contracts represent a framework for facilitating discussion and negotiation between the operators and the government, rather than a legally binding commitment (World Bank, 2009). For example, in the ONAS programme contract (2007-11), one of the objectives for the operator is to broaden PSP in operating the sanitation infrastructure as well as to implement BOT projects (Box 1.2). In addition to the objectives, the programme contract specifies: *i)* commercial conditions; *ii)* organisational conditions; *iii*) human resource management; and *iv*) financial conditions.

Box 1.2. **Objectives of the National Sanitation Office in the programme contract 2007-11**

The objectives of the National Sanitation Office in the Programme Contract between the State and ONAS 2007-2011 are:

- Number of customers ("subscribers").
- Rate of service connections.
- Water volumes consumed and treated.
- Maintenance of sanitation infrastructure.
- Reuse of treated water.
- Management of sludge from treatment stations.
- Strengthening PSP in the operation of sanitation works.
- Research and development and pursuit of BOT projects.
- Inputs consumed (raw materials and consumables).
- Energy savings programme.

Source: Office National de l'Assainissement (ONAS), "Contrat programme entre l'État et l'ONAS 2007-2011", ONAS, Tunis.

The government is committed to take certain steps that will help the operators achieve their objectives. In the case of ONAS, for example, the government has agreed to cover the operating costs of sanitation infrastructure built as part of the rural sanitation pilot project.[19] However, some government responsibilities remain vague and are not associated with any concrete indicators. For example, the government's obligation to "improve the regulatory and institutional framework of the spin-off (*essaimage*) programme" says nothing about how that improvement is to be achieved. Moreover, the consequences of the government's default on its obligations are not clearly spelled out.

Since 2011, no programme contract has been signed between the government and the two historic operators. A study is now under way within the *Bureau de Planification des Équilibres Hydrauliques* ("Office of Planning and Hydraulic Balance", BPEH) to define a strategy with SONEDE, but signature of such a framework agreement will not be easy during the current political transition.

SONEDE has developed several performance indicators in order to improve its management methods and strengthen its leadership tools. These indicators are based on the work of the International Water Association, and include system efficiency (input and output), the number of ruptures, the number of leaks, mains length, number of service connections, number of permanent staff and their ratio to customers. On the basis of these indicators, SONEDE collects data for each district (38 districts grouped within four regional directorates) so as to compare performance of the different regions in its annual report (Table 1.1). However, these indicators essentially cover the technical aspects of drinking water supply, and not the quality of service, the business performance of the system in terms of bill collection, or user satisfaction. To remedy this weakness, SONEDE has instituted a quality management unit (UGQ) to oversee and measure the quality of service provided. This unit conducts diagnostic assessments and prepares policies for improving service quality. In 2005-2006, SONEDE hired an outside consultant to conduct a quality study, called *écoute clients* ("listening to customers"), of a nationwide sample of households, communities and businesses. That study revealed that 43% of customers were fully satisfied, 43% were moderately satisfied, and 14% were unsatisfied. However, the study has not been repeated. Customer satisfaction surveys have also been conducted each year in the 13 districts certified ISO 9001.[20] The accounting and financial statements of SONEDE are published annually in the Official Gazette (*Journal Officiel de la République tunisienne*), but they are not publicly accessible at the operator's website. Nor are the results of the customer satisfaction surveys available at the SONEDE website.

The supervision of contracts with the private sector needs to be clarified. PSP is regulated essentially by contract (OECD questionnaire). According to the concessions Law 2008-23 and Decree 2010-1753 on the granting of concessions, the contracting authorities are responsible for formulating the project and awarding contracts to private firms, on the basis of a competitive tendering system. They are responsible for all subsequent negotiations and for any amendments to the contracts. Decree 2008-2965 established a unit responsible for monitoring concessions, attached to the office of the Prime Minister. Its role is to examine any issue related to negotiations for the granting of concessions and their implementation at all stages. The Prime Minister has the final say. According to article 18 of the draft law on PPP, the contract between the public authority and the private partner must specify the partner's expected performance, the degree of service quality, and the way performance is to be measured. It also specifies that the public contracting entity is responsible for monitoring and supervising the private sector's performance, particularly when it comes to meeting quality objectives. The law does not however specify the tools available to the responsible authorities for ensuring such compliance.

With respect to service access for disadvantaged groups, the operators are supposed to apply the principle of "solidarity" among users, as reflected in the tariff structure: low-consumption customers pay much less than high-consumption ones. However, customers in rural areas not served by SONEDE do not benefit from these favourable tariffs. There has as yet been no evaluation of the system's social performance.

Table 1.1. **Performance indicators for SONEDE and the regions concerned**

Indicators	Regions
–lengthof thedistribution network(mains)	–Nord
–number ofleaksin mains	–Centre
–number ofrupturesin mains	–Sud
–number ofcustomers	–GrandTunis
–distribution volume in millionsof m^3	
–consumption volume in millionsof m^3	
–apparentlosses	
–real losses	
–efficiencyofdistribution	

Source: SONEDE (2013), *Rapport des Statistiques 2012*, SONEDE, Tunis.

Customers' involvement is the direct responsibility of ONAS and SONEDE, although there is no formal mechanism. Interaction with customers seems confined to addressing demands relating to connections, invoices and dispute settlement. Nevertheless, the UGQ established by SONEDE makes it possible to evaluate the quality of service offered by the operator. Apart from the 2005 satisfaction survey, the UGQ has delivered quality certification in accordance with the ISO 9001:2008 standard for 13 districts (of the 38 districts in the SONEDE network).[21] The UGQ conducts annual satisfaction surveys for these 13 certified districts in order to identify and monitor customer expectations in each district.[22] There are still 25 districts, then, that have no certification, and no user satisfaction surveys. This represents a gap that SONEDE should resolve in order to ensure a uniform quality of service throughout the country. For its part, ONAS has instituted a quality management system on a pilot basis in the district of Ariana, based on the 2001 version of the ISO 9001 benchmark. Despite obtaining certification in 2011 by the National Institute of Standardisation and Industrial Property (INNORPI), this system still represents only a pilot experiment. On the other hand, in the case of disputes between operators and customers, the latter have no recourse but to approach the public relations office of the oversight ministries. If no solution is forthcoming, the case is put to an administrative mediator or an administrative tribunal. In practice, these routes of recourse involve time-consuming procedures that are likely to discourage the customer.

The financial viability of the water and sanitation sector

The traditional combination of government and donor financing is revealing its limitations

Traditionally, the government and its multilateral and bilateral donors have been the main sources of financing for infrastructure in Tunisia. The government has been subsidising the financing of water and sanitation infrastructure heavily through direct contributions from the national budget. According to available information, in the context of the Ninth Development Plan (1997-2001) as well as the 10th Plan (2002-06), the government earmarked TND 2.1 billion for the water sector: 76% of that amount went to water resources alone, and the remainder to SONEDE and other sector expenses. Sanitation, which includes subsidies to ONAS and other sanitation expenses, received TND 391.5 million under the 9th plan and TND 592.5 million under the 10th plan.

Government financing for sanitation is explicitly guaranteed by law. Article 12 of Law 73/74 of 3 August 1974, creating the National Sanitation Office, provides that if the operator cannot balance its expenses and revenues, the State must fill the gap through subsidies. Subsidies, then, have been an important part of the ONAS operating and investment budget. In 2011, for example, State contributions represented 39% of the operating expenses of ONAS, while user-supported costs and other resources represented respectively 59% and 2% (ONAS, 2011). By contrast, SONEDE is not subsidised for its operating and maintenance expenses, which are borne by users.

SONEDE and ONAS also depend on concessional loans from international financial institutions and bilateral donors to finance a large part of their capital investments. In 2012, for example, the bulk of financing for sanitation infrastructure (TND 88.7 million) came from loans and grants (60%), and the remainder from the State budget (40%).[23] The State provides guarantees for the loans (World Bank, 2009). Of the 27 sanitation projects planned between 2013 and 2016, 23 are expected to be financed by donors.

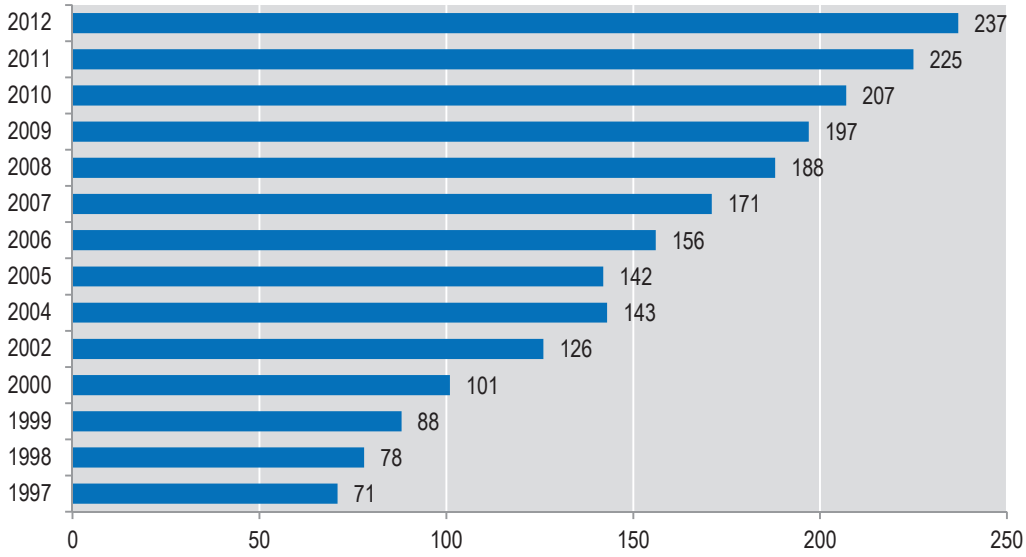
Donor loans and grants are likely to remain an important source of project financing in the water and sanitation sector. The political turmoil that has affected Tunisia since 2011, combined with the international crisis, has had severe consequences for the country's economy and has increased its dependence on external financing. The fiscal deficit reached 7.7% of GDP in 2013, government borrowing amounted to nearly 45% of GDP in that same year, and the fiscal situation poses a constraint on capital spending (International Monetary Fund, 2014). The IMF has approved *a standby arrangement* of US$1.7 billion for Tunisia, but the economic situation remains precarious. Tunisia is also eligible for the Transition Fund established under the Deauville Partnership with Arab countries, and this includes specific financing in support of the PPP programme. These sources of finance do not however obviate the need for the country to strengthen the financial basis of the water and sanitation sector in order to ensure its long-term sustainability, and indeed those sources are likely to dwindle unless such sustainability can be assured.

The operators are facing financial difficulties

Although SONEDE and ONAS were until recently reporting solid financial performances, the operators are today in a delicate situation. In the past, SONEDE's revenues were adequate to cover its operating and maintenance costs and a small portion of capital spending, bit its situation has deteriorated progressively to the point where the deficit stood at TND 80 million (nearly EUR 37 million) in 2013.[24] These financial problems are the result of unpaid user invoices (domestic and government), salary increases and higher production costs reflecting rising costs of energy, raw materials and chemical inputs as well as tariffs that between 1997 and 2010 saw only sporadic and nominal increases that were below inflation. While ONAS receives subsidies from the central budget, its operating costs have soared in recent years (Figure 1.2).[25] In 2013, the coverage rate of operating costs was 67% (including depreciation), thanks to the proceeds from the sanitation charge (85% of coverage) and other income (technical assistance, service connections etc.), as well as the common fund for local governments (4% of coverage) (Ghodbane, 2014).

Figure 1.2. **Operating costs of ONAS**

TND millions, 1997-2012



Source: Office National de l'Assainissement (ONAS) (n.d.), "Moyens et ressources financières", ONAS, Tunis, www.onas.nat.tn/En/page.php?code=9, accessed 15 December 2013.

It has become more difficult to collect payment of invoices in recent years. Traditionally, the bill collection rate for SONEDE was 99% (Pérard, 2008) but that rate is now declining. Residential users are becoming increasingly negligent about paying their water bills, while public institutions' arrears in fact now account for a quarter of the operators' deficit. The head of SONEDE reports that the company has TND 200 million (around EUR 92 million) in outstanding invoices owed by private consumers as well as by government departments and local authorities, thus exacerbating its deficit. Payment discipline is lax, and many institutions are up to a year in arrears. Article 13 of the water service connection regulations (Decree 73-515 of 30 October 1973) stipulates that "in the absence of payment by the customer within the time limits indicated on the invoice, SONEDE shall be entitled to cancel the service without prejudice to legal action". And while the Agriculture Ministry lends its political support to SONEDE in cutting off service to non-paying customers, including government departments, the ministry is not sufficiently well armed to cope with the political ramifications of this approach.

The challenges of tariff setting

In 2013, the Council of Ministers approved two increases of 7% in the drinking water tariff: they came into effect, respectively, in July 2013 and in December 2013. These increases are to be followed by further annual hikes until 2016. Increases in the volume-related charge (i.e. the tariff applied per unit of water consumed over a given period) should represent an annual gain of TND 16 million (around EUR 7 million) (Global Water Intelligence, 2013a). Fixed charges will be systematically calculated and are supposed to generate TND 2 million (around EUR 900 000) per year. The sharpest increase will apply to users who consume more than 40 m³ over three months. While the 2013 tariff increase spared 71.5% of SONEDE's customers, the 2014 increase and upcoming tariff revisions will affect all classes of consumers.

These increases are supposed to curb SONEDE's indebtedness problems, but they are still insufficient to address the long-term financing problem. If they are applied, the increases planned over the next five years should enable SONEDE to plan better for its financing needs and its expenses. SONEDE estimates that these increases will be adequate to restore its financial balance by 2016. Nevertheless, the expected gain from the volume tariff increases and the fixed charges is TND 18 million (around EUR 8 million) a year, suggesting that other measures will be needed to overcome a SONEDE's budgetary deficit. In fact, in 2012 SONEDE spent on average 740 millimes per cubic meter of water, but sold it at 600 mils, enough to cover only 81% of production costs (African Manager, 2012). Moreover, in light of the projects to build large-scale desalination plants (50 000 m³ and more), SONEDE's production costs are likely to increase. The cost of energy is also rising, while SONEDE's operating costs, of which salaries represent 43%, remain high and there is no prospect that they will drop in the near term.[26]

The upward trend in the ONAS tariff schedule in recent years has not been enough to restore financial equilibrium. After rising by 5.7% in 2003, sanitation charges were frozen until 2010. The July 2010 tariff review confirmed the "polluter pays" principle by opting for a variable tariff schedule for the industrial and commercial sector, as a function of the pollution load and in accordance with the standards governing discharge into the public sanitation network (Kapitalis, 2010). In the course of that tariff revision, sanitation rates both for households and for hotels and industries were revised upwards (+5%) except for the first consumption band, which remained unchanged (Kapitalis, 2010). Subsequently, tariffs underwent further increases of 3.7% in 2011 and 7% in 2013. With respect to the flat-rate sanitation charge, this was revised on 15 August, 2013 by decree of the Minister of Economy and Finance and the Minister of Equipment and the Environment (Annex 1.A5). Further increases of the order of 7% are now under discussion for 2014, 2015 and 2016.

The scope for using cross-subsidies is uncertain. Traditionally, bulk consumers such as factories and hotels accounted for the majority of SONEDE revenues. According to Pérard (2008), the 3% of bulk consumers account for around 65% of SONEDE revenues, while 92% of the Tunisian population pays less than TND 17 per month (contribution from SONEDE, 2014).[27] Moreover, the ratio between the highest and the lowest tariffs on the schedule has increased, rising from 1:6 in 2009 (Touzi et al., 2010) to 1:7 currently (SONEDE, 2013). In this context, bulk consumers could find it to their advantage to supply themselves from other sources and to disconnect from the SONEDE network, a move that would compromise its financial stability. At the same time, this heavy dependence makes the water sector sensitive to the economic cycle. Between 2010 and 2011, the volume of water consumed by industry dropped by 12%, while tourism consumption fell by 24% (SONEDE, 2011), reflecting the decline in economic activity in these two sectors. A more in-depth analysis (focusing in particular on the price elasticity of consumption by industry and tourism) would show whether this decline is due to current economic difficulties or to a structural trend among these two user groups to consume less and to opt for private supply arrangements.

Tunisia is the only country in the Mediterranean region to apply a single tariff. Consistent with the principle of solidarity, a single increasing tariff for drinking water is applied in all *gouvernorats* served by SONEDE (see Annex 1.A5 for the 2012 tariffs). A similar equalisation arrangement exists for sanitation tariffs. The adoption of regional equalisation is supposed to result in the delivery of a minimum level of service that is virtually equivalent at the same tariff for all citizens, regardless of their geographic

location (Touzi et al., 2010). The intention is to help the low-income population to pay its water bills (through the progressivity of tariffs) and to equalise infrastructure investment charges across the entire territory. This system has benefited the coastal cities, where water resources are scarcer and where the cost of transfer facilities would be too heavy for them to bear. That said, in a context of heavy financial pressures, the principle is reaching its limits.

Water tariff equalisation should be reviewed. Equalisation has the effect of blurring the tariff's ability to reflect the scarcity of water resources and the cost of delivering service (Pérard, 2008). On the other hand, this system means that the cost of water is not properly taken into account by investors when choosing the location for their activity, and this generates doubts about the utility of this approach for economic uses of water (industry, tourism, commerce etc.) (Touzi et al., 2010). Moreover, it does not necessarily meet the social objective of equalisation, as it is poorly targeted: households that consume water in small quantities are not always low-income. Then again, the tariff schedule applied to water does not distinguish between private consumption by households and commercial and industrial use by businesses. Lastly, as equalisation does nothing for the rural population served by the GDAs, its social character is debatable

Levers for strengthening the financial viability of the water sector

A number of studies now under way could lay the basis for redefining the tariff schedule for water and sanitation services, and could establish a more solid foundation for the financial sustainability of the operators. The drinking water tariff study now in progress with the World Bank is analysing the current status of water tariffs in Tunisia and the issues relating to SONEDE's financial viability over the period 2016-25, in order to propose reform scenarios and tariff adjustments. Recognising that SONEDE collects production cost data by district, this should allow analysis of the impact of tariff equalisation on the economic efficiency of the system. In the sanitation area, the European Bank for Reconstruction and Development (EBRD) and the European Investment Bank (EID) are working with ONAS and the environment and finance ministries to assess the financial sustainability of the operator. That study will be performed over four years and should produce possible options for improving the financial situation of ONAS.

To reinforce the water sector's financial viability, tariff increases must be accompanied by a concomitant effort to reduce the costs and boost the technical efficiency of the service. Water losses amounted to 21.1% in 2012, and 68.2% of them were attributable to losses from the distribution networks and 31.8% to losses in the production networks (SONEDE, 2013), leaving some room for progress. Without such an effort, the gains resulting from the tariff increases could prove ephemeral, and the improvement in service quality might not be adequate in the eyes of users. A more efficient system is also needed from the viewpoint of bill-paying discipline.

The water sector would benefit from strategic financial planning. In fact, the financial sustainability of investment projects (capital outlays and operating expenses) is a dimension that must be considered over the medium and long terms. The process for deciding to develop such projects must include a medium-term forecast of the revenues to be generated and the expenses to be incurred by the project, as well as an analysis of the fiscal risks. This decision should be part of a broader analysis of the sector's needs, the projects to be developed, and the potential sources and levers of financing. However, with the suspension of five-year planning and programme contracts in 2011, the absence of a

long-term strategic vision, and the uncertainties surrounding a possible sector review, the tools and mechanisms in place in Tunisia for ensuring the financial coherence of projects in the water sector are limited. The recent introduction of a programme of results-based budgeting and a medium-term expenditure framework (MTEF) is nevertheless a positive development that should help to align investment projects and the budget process more closely. SONEDE's effort to prepare a national investment programme with World Bank support (presented to donors in February 2014 at Marseilles) also represents an important contribution to this strategic financial planning.

At the present time there is no clear government strategy (nor is there adequate information) concerning mobilisation of investments and support for PSP through specific financial mechanisms. There is no dedicated public fund that could facilitate PPP project development through mixed public-private financing arrangements, nor is there any fund to encourage PSP in the rural areas or under-serviced *gouvernorats*. Subsidies seem to have been granted to the private sector to invest in desalination, but there is no available information on the level of subsidies to date and on the reiteration of incentives of this type (Bucknall and Louati, 2010). It appears that steps have been taken as well to grant bonuses in favour of investments by small and medium-sized enterprises (SMEs) in the prospecting, production and marketing of nonconventional water resources in the context of integrated projects for tourism and industrial zones. There are also subsidies in favour of water-saving investments.[28]

Value for money and stakeholders' engagement

Mechanisms are being developed to ensure a solid cost/benefit ratio in public-private partnerships through the procurement process

At this time, the mechanisms and tools for analysing the costs and benefits of private sector participation and for ensuring value for money are still embryonic. To make procurement processes more transparent, the government has introduced an online procurement management system known as TUNEPS, and it is now in use by a few pilot institutions including SONEDE and ONAS.[29] The launch of this web portal is one of the government's initiatives to strengthen the process of awarding contracts in Tunisia, after several setbacks in the pre-revolutionary period (Web Manager Center, 2013). If adequately utilised, it could contribute to bringing greater transparency to the PPP process. Moreover, the law calls for PSP contracts to be awarded on the basis of competition. However, lessons will have to be drawn from the decree on the granting of concessions, which has been criticised for the importance it gave to the "lowest price" criterion in selecting the winning bid (BEI-FEMIP, 2011b). More broadly, the current legislative framework still fails to clarify the tools and mechanisms for taking into account the cost-benefit ratio in the choice between conventional and PPP procurement contracts.

The proposed law on PPP includes provisions that could enhance value for money and clarify existing mechanisms. Article 12 provides that if the contracting authority wishes to define a project as PPP it must submit a draft proposal to the PPP unit, together with an evaluation of alternative forms of contract, cost details, allocation of risks among partners, and the expected outcomes of the PPP. The PPP unit is to evaluate the proposal and render an opinion on the merits of the PPP approach for the project. The draft law does not detail the way in which the PPP unit is to render its decision – application decrees will have to clarify this point. Although the PPP unit's opinion is required before tenders are called for a PPP project, the unit has no enforcement powers, and

consequently the contracting authority might take little account of its opinion. Article 15 of the draft PPP law establishes the criteria for a winning bid: the contract is to be awarded to the bid that is most advantageous economically, on the basis of criteria set by the contracting authority, taking due account of the total cost of the project and its job creating capacity. These aspects would seem generally equivalent to the practices adopted in other countries. However, more information will be needed to analyse the points of similarity and divergence in detail. Effective implementation of these mechanisms will also be an essential element for their success.

The need for interfaces with users

Since the "Arab Spring", civil society has been seeking greater involvement in the formulation of public policies in all fields, including water and sanitation services. Citizens are today demanding a greater role in the decision-making process, and they are exerting heavy pressure on the political authorities to strengthen user involvement in all fields of public life, including water policy and service delivery. So far, the formal mechanisms for user participation have essentially relied on water user associations (the GDAs), but their mandate covers only irrigation and drinking water in rural areas.

Mechanisms for civil society involvement are being developed. Since 2004, the Tunisian Consumer Defence Organisation (ODC) has had a co-operation agreement with SONEDE designed to raise public awareness about saving water and to enhance the response to users' needs. However, the scope of the agreement seems limited and its effectiveness in communicating with users about the issues involved, such as water pricing and service quality, is not yet proven. Although various associations exist (such as the Water Desalination Association), they are focused primarily on raising public awareness about the scarcity of water resources and about the management and conservation of those resources (Hamza, 2009). While a number of working groups (*Eau et développement*, *Eau dans la Constitution*, ENIT, CERTE, ITES, etc.) have been created in recent years, led by independent water experts or representatives of civil society, there is still no all-embracing platform for dealing squarely with governance issues. In particular, sensitive questions relating to user charges, the level of subsidies and the cost of service should be communicated more thoroughly, as should issues of access to basic information and transparency in the decision-making process. The number of NGOs in Tunisia has jumped sharply, from 8 000 under the Ben Ali regime to 10 000 according to official figures (or 20 000 according to unofficial estimates) (Khatib, 2013), and this opens a window of opportunity for mobilising citizens on water issues. Civil society has also been active in advocating an amendment to the Constitution to include a right to water and sanitation.[30]

The risk of public opposition to PPP should also be taken into account, given the allegations of corruption and nepotism surrounding the award of certain contracts.[31] In this context, a debate about the advantages and risks of PPP in water and sanitation services would seem timely, in order to ensure its political and social acceptance. Civil society's involvement is essential for understanding people's aspirations and for explaining the objectives and the expected benefits of private sector participation, while clarifying the remaining prerogatives of the public authorities for delegating service, particularly in terms of regulation and balancing the interests of different stakeholders. The ongoing debates about PPP, legislation and strategies in the water sector offer an opportunity to involve the public in drafting laws and in planning for the sector, and in making strategic choices for the future. The recent tariff increases and their introduction over the next five years will also require a serious effort to communicate the inherent

issues and modalities to different stakeholders, especially the citizens. Explaining the reasons and the objectives for the tariff reform and articulating this with efforts to improve service delivery could give users a better understanding of the expected benefits from higher tariffs.

Operators should not see dialogue with stakeholders as a constraint but rather as an effective means for preventing disputes and explaining the thrust of selected public policies, with the objective of ensuring the widest possible understanding and support. At the present time, there are few mechanisms for dialogue with consumers. There is little effort devoted to consumer relations: for example, ONAS responded to 77% of complaints in 2010, but it handled only 47% of them itself and passed off the remaining 30% to another agency (ONAS, 2010). Systematic evaluation of user satisfaction with the services offered is another aspect that is largely overlooked. Users perceive SONEDE and ONAS as an arm of government rather than as separate commercial institutions (World Bank, 2009) and therefore they do not have the same expectations and demands that they would have of the private sector in terms of transparency, commitment and dialogue.

Attention should be drawn, however, to some promising efforts undertaken by ONAS in recent years. Since 2010, for example, public consultations of the local population and civil society have been organised for introducing new wastewater purification plants (STEPs). The notice of consultation is posted in the municipality concerned (as was the case with the STEPs for Menzel Temime and Tazrka/Somaa/Maamoura). ONAS has also prepared terms of reference for a communication study and it has launched a quality initiative with the citizens' bureau, certified with the "*Marhaba*" label since 2011 by INNORPI (the Standardisation and Industrial Property Institute). An action plan has been drawn up to extend this reception system to the 24 regional directorates of ONAS. Responses to customer complaints are now estimated to come within 24 hours by telephone, 48 hours by e-mail, and 21 days by post, complaint statistics are being monitored, and the annual report transmitted to the head of ONAS presents data by region and by type of complaint.

Notes

1. The rural coverage rate for water service is 93.4% (SONEDE, 2013a).
2. Report of the technical commission of inquiry on the circumstances and causes of disruptions to water distribution, July 2012.
3. Real or physical losses include leaks on mains, leaks and overflows on reservoirs, and leaks on service connections up to the customer metering point.
4. According to SONEDE (2013b): "in 2011, there were 1 327 GPAs devoted to drinking water distribution."
5. *ibid*.
6. Law 99-43 of 10 May 1999 concerning development associations in the agriculture and fisheries sector.
7. Law 74-73 creating the *Office National de l'Assainissement* of 3 August 1974, www.faolex.fao.org/docs/pdf/tun3245.pdf, accessed on 24 March 2014 and Law 93-41 of 19 April 1993 on the ONAS, www.faolex.fao.org/docs/pdf/tun62475.pdf, accessed on 24 March 2014.
8. The terms of reference for the study were prepared in February 2013
9. Article 1 of Law 2005-56 defines *essaimage* as "any encouragement or assistance that a business corporation provides to promoters from among its personnel or from outside to encourage them to create independent enterprises or to pursue an activity that the corporation itself previously performed."
10. Various newspaper stories suggest that the initial contract was awarded to Ben Ali's son-in-law, but when the regime was deposed the project was cancelled. See for example Web Manager Center (2013).
11. Information provided by SONEDE in October 2013.
12. Article 2 of the draft law on PPP contracts provides that "the partnership contract may, in a subsidiary manner, authorise the private partner to deliver services and to receive consideration from users, provided this does not affect the proper running of the public service and respect for its contractual obligations."
13. Website: www.iort.gov.tn.
14. The OECD document, "Applying Better Regulation to the Water Sector" (forthcoming) defines a typology of regulatory functions in relation to water and sanitation services that has served as a benchmark for reviewing regulatory functions in this section.
15. Quality standards for drinking water are set by the Ministry of Public Health. Standard NT 09-13 covers the production of drinking water, but relates only to surface water. Another standard, NT 09-14, applies to drinking water, but it is based on a WHO standard from 1972, and the 1980 European standard.

16. www.sonede.com.tn/index.php?id=101.

17. The report of the *Cour des Comptes* is available in Arabic at: www.courdescomptes.nat.tn/rapport_details.php?rapport=1.

18. These sources include Decree 79-768 (8 September 1979), amended by Decree 94-2050 (3 October 1994) and Decree 2001-1534 (25 June 2001) for domestic effluents; Decree 94-1885 (12 September 1994) authorising non domestic effluent discharge; standard NT 106.02 (1989) for quality standards for the discharge of wastewater; Decree 85-56 (2 January 1985) on the discharge of emissions in zones not served by ONAS, standard NT 106.20 (2002) on the use and application of sludge derived from wastewater treatment; Decree 94-1885 (1994) and Law 93-41 of 19 April 1993 setting penalties for violators; Decree 89-1047 of 28 July 1989 on the reuse of treated effluent for agricultural purposes; and standard NT 106.03 (1989) on the physical, chemical and biological qualities required of the treated effluents to be used for agricultural purposes (Global Water Intelligence, 2012).

19. Programme contract between the State and ONAS 2007-2011.

20. www.sonede.com.tn/index.php?id=101&L=0.

21. ISO 9001 contains eight basic principles: *i)* customer focus; *ii)* leadership; *iii)* involvement of people; *iv)* process approach; *v)* systems approach to management; *vi)* continual improvement; *vii)* factual approach to decision-making; *viii)* mutually beneficial supplier relationships.

22. www.sonede.com.tn/index.php?id=101.

23. ONAS Internet site, www.onas.nat.tn, accessed 24 March 2014.

24. SONEDE "Revue de Presse" www.sonede.com.tn/index.php?id=71 (original source: www.radioexpressfm.com/lire/hedi-belhaj-les-impayes-de-la-sonede-se-chiffrent-a-215-mdt).

25. The structure for financing the operating costs of ONAS includes payments by users, government subsidies, and works and services, in decreasing order of importance. Decree 75-492 of 26 July 1975 (amended by Decree 2002-524 of 27 February 2002) made SONEDE responsible for invoicing and collecting sanitation charges for the account of ONAS. ONAS and SONEDE signed a contract in 1995 whereby billing, collection and recovery as well as the management of customer files would be handled by SONEDE (GKW, 2006). This service costs ONAS around TND 2 million (close to EUR 1 million) a year (Weisenberger, 2011).

26. Presentation by Abdelazis Limam, GWP-Med Conference, Tunis, 21 June 2012.

27. According to SONEDE, 40% of Tunisians pay less than TND 3 per month, 30% pay less than TND 7 per month, and 22% pay less than TND 17 per month.

28. www.sonede.com.tn/index.php?id=44.

29. www.tuneps.tn/index.do.

30. http://initiativeeau.blogspot.fr.

31. See for example: "Le dessalement de l'eau de mer: Panacée ou machine à faire du fric ?", www.acme-eau.org/Articles-de-M-Larbi-Bouguerra-sur-la-crise-de-l-eau-en-Tunisie_a3237.html. This article is critical of private sector participation.

Annex 1.A1

Institutional organisation of the water sector in Tunisia

Name of institution	Role and functions in the water sector
Ministerof Agriculture	Historically, the Minister of Agriculture has been responsible for water resource management and water supply. He establishes policies for the sector, prepares plans for the sector's development, oversees the preparation and follow-up of studies, directs the planning of investment, and exercises oversight authority over institutions involved in carrying out the missions within his purview (including the Société Nationale d'Exploitation et de Distribution des Eaux, SONEDE).
Office of Planning and Hydraulic Balance (*Bureau de Planification et des Équilibres Hydrauliques, BPEH*)	The BPEH is the agency responsible for co-ordinating the various players in the water system, planning the mobilisation of water resources, allocating water among uses, and monitoring the water system's functioning. The BPEH is in charge of developing the water strategy to 2050. It reports to the Ministerof Agriculture.
General Directorate of Rural Engineering and Water Use (*Direction générale du génie rural et de l'exploitation des eaux, DGGREE*)	Under the authority of the Ministry of Agriculture, the DGGREE is responsible for supplying water in rural areas that are not served by SONEDE. It also conducts strategic studies relating to rural engineering and water use in the agricultural sector; it monitors and evaluates irrigation and agricultural sanitation projects; and it co-ordinates drinking water programmes in urban and rural areas, co-ordinates water supply programmes in rural areas, and monitors and evaluates projects.
Regional agricultural development commissions (CRDA)	The CRDA are the regional directorates of the Ministry of Agriculture in each *gouvernorat*. They are in charge of implementing government agricultural policy, they oversee water and soil conservation, they manage hydraulic equipment and they oversee distribution of agricultural water to farmers. They recover wastewater and transport it to irrigated agricultural zones.
Ministry of Equipment, Territorial Planning and Sustainable Development (*ministère de l'Équipement, de l'Aménagement du territoire et du Développement durable*)	Within this Ministry, the Secretariat for Sustainable Development is responsible for sanitation. It exercises oversight authority over public institutions within its purview such as the National Sanitation Office (ONAS). Under the transition government, these powers have been transferred to the Ministry of Agriculture
National Environmental Protection Agency (ANPE)	The ANPE is involved in preparing and implementing general government policies for combating pollution and protecting the environment. It oversees the integrity of the process for preparing, monitoring and improving environmental assessments and practices in Tunisia. It has been the focal point for all activities relating to the environmental aspect of PISEAU II.
Ministry of Public Health	Within the Ministry of Health, the Directorate of Local Hygiene and Environmental Protection exercises sanitary control of water (drinking water, mineral water, raw and treated wastewater, bathing water) and environmental health. It oversees water quality for SONEDE and controls water pollution
Prime Minister's Office (*Présidence du gouvernement*)	The Prime Minister's Office is responsible for regulatory reform and quality. Its principal missionis to centralise all laws proposed by the various ministries, to ensure their conformity with legislation, to compile all legal texts that are to be published in the official Gazette (*Journal officiel de la République tunisienne*) and to approve their publication. Reporting to the chief of staff of the head of government since 2002, the General Directorate of Privatisation supervises privatisation operations in co-operation with the other public entities concerned.

Nameof institution	Roleandfunctions in the watersector
ConcessionsUnit (*Unitéde suivi desconcessions*)	Createdby DecreeNo.2013-4630of 18November2013withinthePrimeMinister's Office,this advisory unit provides supportforgovernmentagencies inthepreparation, tenderingand monitoringof concessionprojects.Inparticular,it is responsiblefor: –national co-ordinationof concessions – helping to prepare and oversee the execution of concessions, and in general the negotiation of investments requiring the use of new forms of partnership between thepublic andprivate sectors –helpingtobuild the capacities of governmentemployees inthe areaof concessions –promotingregional concession projects – helping the government to prepare its strategy on new forms of co-operation betweenthe public and privatesectors, andpublic-private partnerships in particular
PPPunit	Thisunit will provideadvicetothecontractingauthoritiesandtheoversight ministries. It will be responsible for approving and monitoring contracts between public and privateparties.
Ministryof Economy and Finance/GeneralDirectorateof Public-PrivatePartnership (DGPPP)	Within the Ministry of Economy and Finance, the DGPPP has the following responsibilities: –developmentoflegislation inthetaxation,accountingandfinancial areas andin the competitivetenderingofpublic-private partnerships –strengthening international and regional co-operation in public-private partnerships totake advantageoffinancingmechanisms inthis area – monitoring and guiding the preparation and award of projects between the public andprivate sectors –creatingadatabase.
OfficeoftheFinancial ComptrollerGeneral(*Contrôle Généraldes Finances,CGF*)	The CGF, acting under the authority of the Minister of Economy and Finance, overseas the conformity and regularity of public agencies and institutions. It also evaluatespublic projects andprogrammes toassess theperformanceofthevarious partiesinvolvedandtoidentify theimpacts.
SecretariatforDevelopmentand InternationalCooperation (*Secrétariatd'Étatdu développementetdela coopérationinternationale*)	ThisofficewasplacedwithintheMinistry ofEconomy andFinanceinJanuary 2014. Itis responsibleforquestions relatedtoplanning.
GeneralCommitteeforState BudgetAdministration	Within the Ministry of Economy and Finance, this committee considers the budgets allocated to the Ministry of Agriculture and the Ministry of Equipment, Territorial PlanningandSustainableDevelopment.
NationalSanitation Office (*ONAS*)	ONASis a"public industrial andcommercial establishment" (EPIC)withits ownlegal personalityandfinancial autonomy. Pursuanttothelawof1993,ithas responsibilities fortheprotectionof waterresources andthe environment: –combating all sources of water pollution inthe areas withinits purview. –management, operation, renovation and construction of all urban sanitation works suchas treatmentplants,pumping stations,networks andmarineoutfalls –promoting the distribution and sale of treated water, sludge from treatment plants, andall otherproducts –planning, preparation and execution of projects on behalf of the State and local authorities.
NationalWaterSupply and DistributionCompany (*SONEDE*)	Created in 1968, SONEDE is an EPIC responsible for water production, treatment and transfer, water distribution (management and maintenance of the drinking water network and equipment and management of customers) and development (studies, works).SONEDEcovers only 50% of rural areas.

Name of institution	Role and functions in the water sector
Agricultural development groups (Groupements de développement agricole, GDA)	Established by Law 99-43 of 10 May 1999 on development associations in the agriculture and fisheries sector in rural areas, the GDA are responsible for managing water supply systems installed by the Directorate of Rural Engineering within the Ministry of Agriculture in areas where the SONEDE-managed networks are not available. They have a management contract with the government
National water council (*Conseil National de l'Eau*)	Created in 2010, the Conseil National de l'Eau assists the Minister of Agriculture in defining the general principles for mobilising and enhancing the use of water resources. Chaired by the Minister of Agriculture, it is a strategic advisory body comprising representatives of several ministries, enterprises and national organisations.

Sources: Tunisian government portal, www.tunisie.gov.tn/index.php?option=com_ministeres&Itemid=382&Itemid=382; Finance Ministry, www.finances.gov.tn/index.php?lang=fr; Agriculture Ministry, www.tunisie.gov.tn/index.php?option=com_ministeres&Itemid=382&task=view&id=23&lang=french; Environment Ministry, www.environnement.gov.tn/index.php?id=60&L=0#.Uvzh6KlDuLE; DGGREE, www.semide.tn/DGGR.htm; Office National de l'Assainissement, www.onas.nat.tn/Fr/page.php?code=58; SONEDE, www.sonede.com.tn/index.php?id=12; Ministry of Public Health, www.santetunisie.rns.tn/fr/index.php?option=com_content&view=article&id=273&Itemid=146&lang=fr; Contrôle Général des Finances, www.portail.finances.gov.tn/presentationdirection.php?id=CGF&menu=present; site de l'Agence Nationale de Protection de l'Environnement, www.anpe.nat.tn/; CRDA, www.semide.tn/CRDA.htm; accessed 11 February 2014; Decree 2010-407 of 9 March 2010, establishing a Conseil National de l'Eau and defining its missions, composition and operating modalities, http://faolex.fao.org/docs/pdf/tun96882.pdf.

Annex 1.A2

List of water sector projects in Tunisia

Table 1.A2.1. **Investment projects in the water sector under way or planned by the Société Nationale d'Exploitation et de Distribution des Eaux (SONEDE)**

Projectdescription	Modeoffinancing	Currentstatus
Strengtheningwater transfer systemsin thenorthern	**ProjectcostTND 211.5M**	
ConstructionoftheSaida dam	Financingsought (TND 121.3M)	DPDcompleted/EIA not completed
Watertransfer system from Saida to ElKhouine (near Belli)	Financingsought (TND 90.2 M)	Feasibilitystudyunder way
Strengtheningwaterresources in the northernregions (Sahel andSfax)	**Projectcost TND 224.9 M**	
Constructionofadam atKalaaKebira	Financingsought (TND 113.6M)	DPDunderway
Strengtheningwaterproduction capacitiesattheBellicomplex	Financingsought (TND38.2 M)	Feasibilitystudyunderway
Constructionofawater treatmentplant(KalaaKebira)	Financingsought (TND 69.2 M)	Feasibilitystudyunder way
Rehabilitationof thewatertreatmentplantat theBellicomplex	Agreementin principle(WB) (TND4M)	Feasibilitystudyunderway
Strengtheningproductioncapacities inGreaterTunis	**ProjectcostTND 184.4M**	
Expansionand rehabilitationof the treatmentplant atGhdirElGolla(Grand Tunis)	Agreementin principle(BM) (TND25 M)	Feasibilitystudyunder way
Constructionofanew treatment plantat Bejoua(GrandTunis)	Financingsought (TND 159.4M)	Feasibilitystudyunder way
Capacitybuilding in ruralzones	**ProjectcostTND 438.7M**	
Gouvernoratof Biserte	Financingsought (TND 103.4M)	DPDunderway
Gouvernoratof Bejà	Anagreementinprinciple(KfW)(TND 76.3M)	DPDunderway
Gouvernoratof Jendouba	Agreementin principle(JICA) (TND 69M)	Underconstruction
Gouvernoratof Kef	Financingsought (TND 100 M)	…
Gouvernoratof Siliana	Financingsought (TND 90M)	…

Table 1.A2.1. **Investment projects in the water sector under way or planned by the Société Nationale d'Exploitation et de Distribution des Eaux (SONEDE)** (*cont.*)

Projectdescription	Modeof financing	Currentstatus
Rehabilitationand strengthening of urban infrastructure	**ProjectcostTND340.5M**	
Rehabilitationandstrengtheningofdrinking waterproductioninfrastructure	AFDfinancing(TND 85M)	Underconstruction
Infrastructureimprovementin urbancentres(Phases 1and2)		
Phase1(32projects)	JICAfinancing (TND 90M)	Underconstruction
Phase2	Financingsought (TND35 M)	Feasibilitystudyunder way
23waterinfrastructureimprovementprojectsin 10 *gouvernorats*	FinancementKfW (TND 50M)	Underconstruction
Rehabilitationof watersupplysystemsintheNorthwest	Financingsought (TND180 M)	Tenderingdocumentsinpreparation
Rehabilitationof waterdistributionsinGreaterTunis	Financingsought (TND 20M)	
ReplacementofaqueductsbetweenZaghouanandEl Jebel Ouest	Financingsought (TND 20M)	
Reinforcingwaterdistributioninfrastructurein GrandSousse	Financingsought (TND 22.5 M)	Tendersin preparation
Constructionof 16brackish water desalination plants	**ProjectcostTND 224M**	
Phase1with 10 desalinationplants	KfWfinancing (TND 84M)	Underconstruction
Phase2 with 6 desalination plants	Anagreement in principle (KfW) (TND140 M)	Feasibilitystudycompleted
Constructionof seawater desalination plants	**ProjectcostTND 620M**	
Djerbadesalinationplant	KfW/AFDfinancing(TND 130M)	Tenderingunderway
Sfaxdesalination plant	Agreementinprinciple(JICA)(TND 300M)	Preliminarystudyunderway
Zaratdesalinationplant	Agreementin principle(KfW)(TND 160 M)	DPDunderway
Kerkennahdesalinationplant	Financingsought (TND 30M)	…

Notes: DPD: Detailed project design; EIA: Environmental impact study.

Source: SONEDE with support and technical assistance from the World Bank (2014), *National Potable Water Security Investment Programme*, 25 January.

Table 1.A2.2. **Investment projects in the water sector under way or planned by the Office National de l'Assainissement (ONAS)**

Projectdescription	Modeoffinancing
Sanitationprojectfor11 citiesin the MedjerdahValley: involvescreationof307 kilometresofmains, 14470connectorjunctions and 11treatmentplants(3tranches)	KfW CostTND115 million Constructionperiod:1990-2014
SousseIIsanitationproject: involvescreationof135 kilometresofmains,3150connectorjunctionsandone treatmentplant	KfW CostTND112 million Constructionperiod:2009-16
Sanitationprojectforsmall andmedium-sizedtownsII: involvescreationof60kilometresof mains,6600connectorjunctionsand6treatment plants	KfW CostTND65 million Constructionperiod:2006-16
TunisNordsanitationproject: involvescreationof14kilometresof mains	WorldBank CostTND78 million Constructionperiod:2010-15
Expansionand rehabilitation of 13 treatmentplantsand 130 pumping stations	AFD/KfW/EuropeanCommission CostTND450 million Constructionperiod:2010-15
Programmefor rehabilitation and expansion of sewer networksand capacitybuilding forONAS(PRERERC): involvescreationof1480kilometresofsewerlines and24 700 connectorjunctions	EIB/AFD CostTND170 million Constructionperiod:2007-14
ElAttartreatmentplantandwastewater transfersystems: involvescreationof31kilometresof sewerlineandatreatmentplant	WorldBank CostTND114 million Constructionperiod:2006-15
ONASIV sanitation project: involvescreation of 173 kilometresof sewer line, rehabilitation and reinforcementof 4 kilometresofconduits,creationof 10922connectorjunctions, constructionof 3 treatmentplants	EuropeanInvestmentBank(EIB) CostTND123 million Constructionperiod:2007-14
Sludgetreatment andevacuation(TR2)	KfW CostTND85 million Constructionperiod:2011-16
Projectto improvethequalityoftreated water	AfricanDevelopmentBank CostTND98 million Constructionperiod:2012-17
Thefollowingprojectsareunderstudy: –Financing, construction and operation of the El Alleftreatment plant, with a capacity of 60000 m ^{3}/day and its transfer system and related works. –Financing, construction and operation of the second tranche Tunis Ouest, El Attar II treatment plant, with a capacity of 50000 m ^{3}/day and reinforcement of two pumping stations. The investment needed for these two components is estimated at TND130 million (estimate from 2008)withoutconsideringoperating costs.	
Projects: –operationoftheSudMelianeIIandChoutranaIItreatment plants; –operation oftheEt AllarItreatment plant,with acapacityof60 000m ^{3}/dayanditssystemsfortransferringrawandtreatedwastewater. Theseprojectsare to be builtin the contextof a concession thatwillrun for 26 years,including the construction phase. Currentstatus: –pre qualification phasecompleted; –threegroupsoffirmshave beenselected,with expertisein projectsofthis kind; –the initialconsultation file iscomplete; –therestrictedconsultation phasebetweenthethreegroupshasnottakenplace	

Source: Office National de l'Assainissement, www.onas.nat.tn/Fr/page.php?code=43, accessed 6 February 2014; Ghodbane, Sadok (2013), "Participation du secteur privé, expérience de l'ONAS", presentation to the advisory workshop on governance and financing in the water sector, Tunis, 1st October.

Table 1.A2.3. **Experience with private sector participation in sanitation**

Gouvernorat	Numberof contracts	Operator	Dateofcontract signature	Startingdateof contract	Sanitationnetworks (km)	Connectorjunctions	Pumpingstations	Treatmentplants
Ariana	1	SEGOR	April2008	June2008	225	19326	1	0
Tunis	2	SEGOR	April2008	June2008	248	8100	14	0
		CHEBBI	May2008	June2008	368	22700	0	0
BenArous	1	SOMEDEN	June2006	October2006	448	31300	11	1
Biserte	1	SEGOR	April2005	September2005	180	13287	13	2
Tozeur	1	Polyservice– former contractwith SEGOR	January2004	April2004	0	0	11	2
Kebili	1	AmeurPlastic	February2007	July2007	83	4389	8	2
Tataouine	1	SEGOR	January2008	March2008	153	9913	3	0
Djerba	2	SEGOR	June2006	September2006	51	1360	16	1
		SITI	January2007	July2007	0	0	2	1
Sfax	1	SOMEDEN	May2008	September2008	183	11563	6	2
Kairouan	1	SEGOR	July2009	November2009	100	16400	0	4
Manouba	1	SEGOR	April2009	July2009	124	10643	15	2

Source: Written contribution from ONAS, December 2013.

Annex 1.A3

Strategies in the Tunisian water and sanitation sector

The "Water Economy 2000" study was prepared during the years 1990-95 under the supervision of the General Directorate of Research and Hydraulic Works of the Ministry of Agriculture. It proposes a water management strategy that would meet water demand at the national level over the coming decades. That study involved the collection, analysis and synthesis of all significant data and information concerning water resources and needs, in both qualitative and quantitative terms, and the identification of all water resources (conventional and nonconventional) at the regional and national levels.

The ten-year strategy for mobilisation of water resources (1990-2000) was intended, first, to mobilise all the country's water resources so as to meet drinking water needs as well as the water needs of agriculture, industry and tourism over the coming decade. Water resources were to be mobilised through construction of infrastructure comprising large-scale dams, boreholes, floodwater spreading and groundwater recharge systems, and water and soil conservation works. The strategy was designed to provide drinking water to all Tunisians, to expand the area under irrigation, and to protect water resources from pollution, flooding and the effects of drought.

The 1997 water sector study sought to answer the questions raised during preparation of the "Water Economy 2000" study, and to analyse key problems in water resource management and offer technical, economic, institutional and legislative options for building a long-term water resource management strategy. The study also proposed short and medium-term measures to reinforce the means available to water management agencies, as well as priority action programmes and organisational and regulatory measures to improve water management. Ten themes were identified as priorities for examination and treatment in that study. The themes relate to controlling water pollution, strengthening legislative frameworks, institution building, reuse of treated wastewater for agriculture, and the development of model approaches for forecasting demand.

The water sector strategy to 2030 was prepared in 1998, taking into account earlier strategies and studies prepared for the sector. The strategy takes stock of the quantity and quality of the country's water resources as well as the state of water infrastructure such as dams and canals. It assesses the country's potential conventional and nonconventional water resources, with an indication of how far those resources could be exploited in the future. The strategy also considers the technical, economic, institutional and legislative factors involved in water management, and the risks associated with flooding and droughts. It takes into account water conservation strategies, the growth of agricultural demand for water, and the trend in demand for drinking water on the basis of population forecasts. The strategy envisages a more important role for the private sector in the construction of public works (dams, reservoirs and wells) and in the maintenance of drinking water and irrigation systems, through subcontracting.

The 12th rural water supply plan initially covered the years from 2010 to 2014, and was then extended to 2015-16.

This Annex is based on information from the Ministry of Agriculture and Water Resources (1998).

Annex 1.A4

Overview of existing legislation

Referencedocument	Year	Mainpoints
Law68-22of 2July 1968	1968	Creates the National Water Supply and Distribution Company (SONEDE),theoperatorof the public drinkingwaterservice
Law19/9/74	1974	Creates the National Sanitation (ONAS) as a public commercial corporation supervised by the Ministry of Environment. Its functions includeconnecting users to thenetwork, transportingand processingof wastewater,andpurificationofwastes
WaterCode 1975	1975	TheWaterCodespells out userrightstopublic waterresources
Decreen°81-793(9January1981)	1981	Makes the Direction de l'hygiène du milieu et de la protection de l'environnement (DHMPE) responsible for monitoring the quality of drinkingwater,protectingtheenvironment,andpreventing pollution.
Law88-91of 2August1988	1988	Establishes the National Environmental Protection Agency (ANPE) and makes environmental impact assessments mandatory for industrial, commercialand economic projects.
Law88-91of2August1988	1992	Expandsthemandate ofANPE toinclude protection oftheenvironment andtheprovision ofpolicyadvice
Law93-41-1993of19April 1993	1993	Amendsthe law creating ONAS, broadening itsmandatefrom manager of the sanitation network to that of lead institution for protecting water resourcesandcombatingall sourcesof pollution
AmendmenttotheWaterCode	2001	Emphasises improving the availability of water resources through the development of nonconventional sources such as desalination. The amendmentalsointroducestheconceptofwatersavingsandmaximising thevalueof waterproduction.
Law70-2004of2August2004 (supplementingLaw 41-1993of19April 1993)	2004	Makes provision for BOT (build-operate-transfer) contracts in the water andsanitationsector.Authorisesthegovernmenttograntconcessionsto private persons for financing, construction and operation of sanitation works.
Decree2005-3280of19December 2005onsanitationt	2005	Determines the conditions and procedures for granting concessions for financing,constructingandoperatingsanitation infrastructure.
Law2007-35of 4June2007 supplementingLaw 93-41of19April 1993concerning the Office National de l'Assainissement	2007	AuthorisesONAS to grantconcessionstoprivatepersonsfor operationof itssanitationworksandofcertainservicesthatit providesin thecontext ofitsmandates.
Decree2008-2268of9June 2008	2008	Identifiesthe listofONAS servicesthatmaybeletunderconcession

Sources: Gabbouj, R. (2011), "L'expérience tunisienne en matière de PPP dans le domaine de l'eau", presentation at the Second Arab Water Forum, Cairo 20-23 November, www.arabwatercouncil.org/AWF/Downloads/Sessions/Special7/1-Ridha_Public-Private-Participation-Tunisia.pdf; Ministry of Agriculture and Water Resources (2008), "Cadre pour la mise en œuvre des mesures de protection environnementale et sociale (DCPES) pour le deuxième projet d'investissement dans le secteur de l'eau PISEAU II", 18 November; ONAS, written contribution, December 2013.

Annex 1.A5

Water tariffs and sanitation charges

Table 1.A5.1. **Average price of water (without sanitation charge), 2012**

Mls/m3

Watertariffs		July2010	July2013	December2013	Change2013/2010
Standpipes		145	145	155	6.9%
Tourism		890	1 110	1 190	33.7%
Otheruses	0-20m ^{3}/quarter	145	145	155	6.9%
	21-40m ^{3}/quarter	250	250	270	8.0%
	41-70m ^{3}/quarter	315	340	365	15.9%
	71-100m ^{3}/quarter	575	620	665	15.7%
	101-150m ^{3}/quarter	575	760	815	41.7%
	151-500m ^{3}/quarter	890	1060	1 135	27.5%
	501m^3 andmore/quarte r	890	1110	1 190	33.7%

Source: SONEDE (2013), *Rapport des Statistiques 2012*, SONEDE, Tunis.

Table 1.A5.2. **Amount of sanitation charge**

Tariff Code	Levelof consumptionperquarter	Fixedchargeper quarterand dwelling(TND)	Variablechargepervolumeofwaterconsumed
Domesticuse			
	Drinkingwatervolume notexceeding 20m ^{3}perquarter	1310	17millimes per m ^{3}
	Morethan20m ^{3}and not exceeding 40 m ^{3}	1310	28millimes per m ^{3}forthefirst20 m ^{3} and170 millimes per additional m ^{3}consumed
	Morethan40m ^{3}and not exceeding 70 m ^{3}	4095	180millimes per m ^{3}forthefirst20 m ^{3} and285 millimes per additional m ^{3}consumed
	Morethan70m ^{3}and not exceeding 100 m^{3}perquarter	8055	285millimes per m ^{3}forthefirst70 m ^{3} and472 millimes per additional m ^{3}consumed
	Morethan 100m ^{3}andnotexceeding150 m^{3}perquarter	8460	300millimes per m ^{3}forthefirst70 m ^{3} and490 millimes per additional m ^{3}consumed
	Morethan 150m ^{3}perquarter	8705	300millimes per m ^{3}forthefirst70 m ^{3} and606 millimes per additional m ^{3}consumed
Tourismuse			
4		8 688	1 080millimesper m ^{3}
Industrialuse			
2	Industrialuseaccordingtostandards for dischargeintotheenvironment	8688	+617 millimes per m ^{3}
3	Industrialuseaccordingtostandards for dischargeinto thepublic sanitation network	8688	+845 millimes per m ^{3}
5	Industrialuseandpollutingactivities exceedingthestandardsfordischargeinto thepublicsanitation network	8688	+845 +(Q*410)**millimesper m ^{3}
6	Industrialuseandpollutingactivities,not connectedtothenetwork	8688	+617 millimes per m ^{3}

Table 1.A5.2. **Amount of sanitation charge** (*cont.*)

Tariff Code	Levelof consumptionperquarter	Fixedchargeper quarterand dwelling(TND)	Variablechargepervolumeofwaterconsumed
8	Industrialuseaccordingtostandards for dischargeinto thepublic sanitation network,eligiblefor a50% reduction in charges	4344	+423 millimes per m^3
9	Industrialuseaccordingtostandards for dischargeintotheenvironment,eligible for a50% reductionincharges	4344	+309 millimes per m^3
Administrativeuse			
A		8688	+845 millimes per m^3
Commercial,professionalor other use			
C		8688	+574 millimes per m^3 upto10m^3 plus 717 millimes peradditional m^3consumed

1. Domestic use: user connected to the public water supply system and to the public sanitation system.

2. *Q* is a pollution coefficient set by the Office National de l'Assainissement (ONAS).

Source: Ministerial decree of August 2013.

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Chapter 2

The potential for private sector participation in Tunisia's water sector

This chapter identifies recommendations relating to three themes for overcoming the governance obstacles to private sector participation in the management of water and sanitation services in Tunisia. The first aspect has to do with the variety of private sector participation modes and their conditions for success. The second relates to the financial viability and fiscal sustainability of private sector participation in the water sector. The third concerns ways of improving the mechanisms for transparency and stakeholders' engagement.

Private sector participation (PSP) is still limited in the Tunisian water and sanitation sector, but it has recently attracted renewed interest through a variety of experiments. The limited and small-scale approaches to PSP to date have given the authorities an initial exposure to the concept and have revealed shortcomings in governance of the sector. The transition to more complex forms of PSP, with potentially higher benefits in terms of efficiency, investment and transfer of knowledge, will require a better understanding of the available PSP options as well as an improved institutional, legislative and regulatory framework. Three years after the revolution, public acceptance of PSP is still an essential condition for its success. This chapter presents the various opportunities for PSP in the Tunisian water sector, and emphasises three fundamental conditions for their success: greater financial sustainability, value for money in public expenditure, and stakeholders' engagement.

Understanding the varied forms of private sector participation

International experience reveals many forms of PSP. Generally speaking, PSP differs from traditional procurement contracts in that it involves the transfer of certain risks to the private partner. Within this broader context, the public authorities have available a wide range of risk-sharing approaches, covering virtually all possible shadings between situations in which the public sector assumes the majority of risks and those where the bulk of risk is transferred to the private sector. Table 2.1 summarises international experience under selected forms of PSP contracts, illustrating their features, advantages and limitations.

The feasibility of PSP depends on the complexity of the arrangement, the establishment of certain framework conditions, and the private partners' appetite for assuming the risks and demands inherent in PSP. Figure 2.1 summarises the dimensions that affect a country's capacity, and that of the sector in question, to manage increasingly complex forms of PSP (as the transfer of responsibilities and risks to the private partner rises). These dimensions have to do with the sector's financial sustainability (the extent to which the sector can ultimately cover its costs, and the role of pricing), its financing needs, and the public's perception (in particular, its willingness to pay for service).

Tunisia presents a mixed picture with respect to these three dimensions:

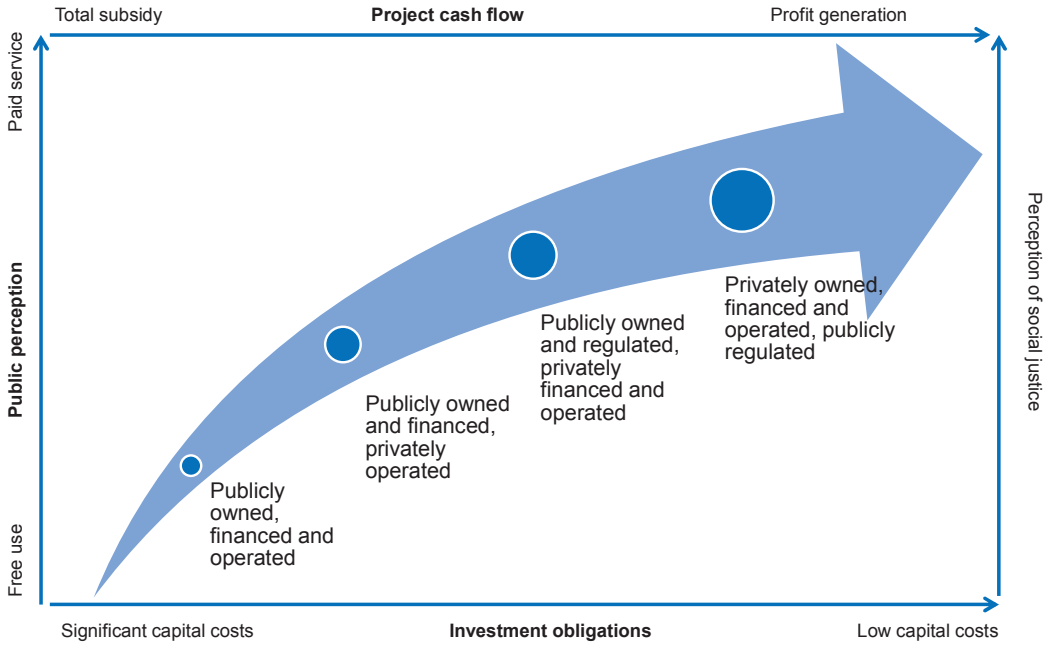
- The water sector has already been largely upgraded in terms of infrastructure investment. Additional facilities are needed, including the development of new water resources (from non-conventional sources) and water treatment plants, but the domestic network is fairly well-developed. This places the Tunisian water sector in a favourable position for involving the private sector with a view to making more efficient use of the existing infrastructure (typically through management contracts) and developing clearly defined additional facilities to supplement the existing network (typically in the form of "build-operate-transfer" or BOT arrangements).

Table 2.1. **Forms, characteristics and strengths and weaknesses of selected PSP contracts**

Form	Features	Strengths	Weaknesses
Subcontracting (Mexico,Tunisia)	–short-term contracts(typically 1-2years). –clearly definedobjectives,e.g. installationofwatermeters. –the risksand responsibilities transferredtothe private sectorarelimited.	Thisis alow-riskwayofgaining familiaritywith PSP.	Becauseofitsshortduration, the impact is limitedto thedemandsof the contract.
Delegated managementin smalltowns (Ghana,Morocco, Mauritania)	Theresponsible ministryor authoritysignscontracts with smalllocalenterprises to provideservicesin areaswhere thedominantoperator is absent.	–networkandservicescanbe readilyexpanded in rural areas. –fosterslocalinitiative. –fostersbetteradaptationto local needsand greaterstakeholders' engagementin servicequality.	–it canbedifficult to monitorandsupervisesmall enterprises. –thereis a riskof rent-seeking orcapturebyspecific groups. –operational conflicts,especially betweensmall operatorsand the historic operator,can emergeif theconditions arenotclearlydefinedat theoutset
Management contract (Amman,Tripoli, Yarmouk)	Governmentappoints aprivate firmtomanage andprovide service,typically for3-5years, forafixedfee.Remunerationof theprivateoperatormaybe set atthe outset,inwhichcasethe commercialrisksofthe operationareborneentirelyby thepublic sector,orit maybe linkedto theperformanceofthe utility,in which case the private operatorbearssome oftherisk.	–thistype of contractfacilitates knowledgetransferand understandingof PSP implications. –canconstituteanincentive throughperformance-linked remuneration.	–some objectives (e.g. reducing unbilled water) may requireadditional supportmeasures(especially investment)onthepartofgovernment. –assessingprogressdemandsrealistic contract specificationsandan unquestionably sound databaseonthestatusof the system.
Affermage (Armenia,Senegal)	Thegovernmentgives operatingrights toaprivate operatorforaspecifiedperiod (typically8-15 years);the operatorcollectsrevenues from usersandpaysa fee tothe governmentfortheoperating rights.The government is generallyresponsibleforthe investment.	Assumptionofthecommercial risk bytheprivateoperatorconstitutes anincentiveto performanceand qualityof service	–suchcontractsdonotresolvetheproblemsthat operatorsand governments mayencounterin comingupwith infrastructure financing. –thecontractdemandscloseco-ordinationbetween thegovernmentandtheprivateoperator:asthe contractingauthorityretainsresponsibilityfor capital costs,improving service willdepend on itscapacity tomakethenecessary investment.
Concession (BuenosAires, Jakarta,Manila)	Theprivatepartneris responsiblefortheinvestment andassumesthe project's commercialriskfor a fairlylong time(typically25-30years).The concessionaireis responsible formaintenance,andis paid directlyfrom user charges.	–thegovernment'sonly responsibilityisto monitor the contract,anditis relievedof any involvementin service delivery andinvestment. –theprofitsfrom asuccessful partnershipcan behigh.	–Privatefinancingdependsontariffrevenues, and thisposesahighriskfor the partnerin caseof politicalinterference. –this model hasexperiencedsomefailuresin emergingcountries.
BOT(build-operate-transfer) (Egypt,Mexico)	Constructionandoperation ofa newfacility(such asa purificationor desalination plant)over afairly long time (20-30years).When the contractexpires,theassets reverttothegovernment.	–BOT projects areclearly delimited,thus confining the risksincurred bytheprivate sector. –financial arrangements combininggovernmentor donor contributionsand private financinghaveproven successful.	–theprivatepartneris notgenerally responsible for connectingtheplantto thenetworks,andthis can beaproblem in some countries. –BOThasalimitedimpact(intermsofefficiency gainsandimprovedservice) onthenetworkandthe watersector asa whole. –thefirstBOTs failedtomaterialiseinTunisia(e.g. theDjerbaBOT).

Source: OECD (2009b), *Private Sector Participation in Water Infrastructure: OECD Checklist for Public Action*, OECD Studies on Water, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264059221-en; OCDE (2013), *Making Water Reform Happen in Mexico, OECD Studies on Water*, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264187894-en; OECD (2014b), *Water Governance in Jordan: Overcoming the Challenges to Private Sector Participation*, OECD Studies on Water, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264213753-en.

Figure 2.1. **Key factors for PSP in the water sector**



Source: Based on Streeter, William (2011), "The quest for sustainable infrastructure finance: Long-term private and public capital is growing, so why are we seeing so little of it?", World Bank, Washington, DC, 22-23 June, http://siteresources.worldbank.org/INTEASTASIAPACIFIC/Resources/226262-1309540769401/Session5_Streeter.pdf.

- The sector has run into problems of financial sustainability in recent years which, if not addressed, could become more severe in the future, given the volume of investment that will be required to continue developing water resources. The levers for improving the financial situation must be handled very carefully. In a setting where the demand for service is not expected to rise, revenues can only be boosted by raising tariffs (together with improvements in technical and commercial efficiency), in a social and political context where tariff setting is sensitive.
- The issues of public perception and social cross-subsidies are harder to assess. The events of the "Arab Spring" have made social concerns the focus of attention at a time when, despite the vigour of civil society and the increased number of expert working groups, fora for effective engagement are still in their infancy. This poses a potentially high risk for PSP. The last section of this chapter looks at ways of strengthening stakeholders' engagement.

Beyond these three dimensions, the small scale of the Tunisian water sector may have implications for its ability to attract private sector interest. The narrowness of the Tunisian market, in comparison to its Mediterranean neighbours, raises questions about the private sector's appetite for committing itself to infrastructure projects where transaction costs could in the end be too heavy in light of the expected return.

Under these circumstances, PSP in Tunisia should be considered from the four following angles:

- Involving small private operators to support the agricultural development groups (GDA) in rural areas.

- Task-specific service contracts to strengthen bill collection efforts or to address water losses (or a pilot management contract for a municipality).
- Transition to more complex PSP models for sanitation services (moving from service contracts to concessions).
- Employing BOT-type contracts for desalination or water treatment plants.

The involvement of small-scale operators in rural areas is one option that could be considered, based on the results of studies now underway on the GDAs. The conclusions of the studies could provide a useful basis for identifying ways of improving the quality of rural service, including cases where private enterprises could intervene, cases where the community-based GDA could be consolidated, and areas where the mandate of SONEDE could be reassessed and reinforced. Given the presently perilous state of most GDAs, PSP should be envisioned only on a pilot basis, with support from the public authorities (Rural Engineering) for reorganising the microsystems. Moreover, given the small scale of the GDAs, private participants would have to be small-scale operators or individual enterprises whose capacities would need considerable strengthening, with suitable supervisory instruments. Countries such as Morocco, where small private operators have taken over service in rural areas, offer examples of the pros and cons of this option and successful ways of involving private operators (Box 2.1).

Box 2.1. **Creating and supporting micro-enterprises and SMEs in rural Morocco**

In Morocco, the ONEE-Water Branch has encouraged the creation of a network of private micro-enterprises to give the operator the option for local and competitive subcontracting in rural areas. Launched in 1996, this initiative has led to the creation of nearly 800 very small firms created by young entrepreneurs and established for the most part (nearly 85%) in the water sector, while others provide sanitation services and miscellaneous activities. The advantages of this programme have been clearly identified by the ONEE, which counts on these many structures to make up for the lack of interest on the part of large and medium-sized enterprises in delivering day-to-day services that are regarded as unprofitable. This initiative has also allowed the operator to optimise its human resource policy by relying on subcontracting rather than on direct recruitment, and thus to achieve payroll savings.

In return, ONAS offers free training to future micro-enterprises selected under this programme and also provides assistance and supervision for its structures (in accordance with contractual and regulatory requirements). The micro-enterprise has the potential to become an SME five years after start-up. Moroccan experience shows, however, that the creation and operation of these micro-enterprises must be sufficiently supervised to ensure that the supply of micro-enterprises meets the needs identified and that they have the means to operate efficiently.

Apart from the micro-enterprises, the Moroccan operator has also supported the involvement of SMEs for outsourcing and managing water delivery in rural areas. To date the ONAS has signed seven contracts with local SMEs, for periods running from 5 to 10 years (with transfer of the commercial risk to the SME).

Source: Benaddou, Ahmed (2014), presentation during the workshop on "*Gouvernance et financement de la PSP dans le secteur de l'eau en Tunisie*", session presenting the Moroccan experience, Tunis, 5 March.

In line with Tunisia's need to redefine priorities and objectives for the water sector, the private sector could contribute to the country's strategy of focusing on technical efficiency and service quality. International experience shows that these two dimensions

represent the most tangible contribution that private operators can make in delivering water and sanitation services (Annex 2.A1 summarises the results of the World Bank study, the most thorough study to date of the record of PSP in developing and emerging countries). OECD studies have shown the role that PSP in water distribution can play in redirecting the culture of service delivery towards greater efficiency and enhanced responsiveness to customer demands. Typically, this can be done through management contracts with a competent private firm, provided a number of prerequisites are in place. Experience in Jordan, where management contracts were introduced in the municipalities of Amman and Yarmouk, as well as in Lebanon, where a similar arrangement was implemented in Tripoli, demonstrates the importance of realistic contract specifications and a common and agreed information base on the state of services and infrastructure, on which to evaluate the operator's performance and the progress achieved (see Annex 2.A1 for a review of this experience).

Given the needs, Tunisia could test the use of BOT for constructing water (conventional and non-conventional) and wastewater treatment plants. This could take the form of a pilot experiment using one of the projects already under discussion to test the feasibility and acceptability of arrangements of this kind in the water sector. Some countries have successfully engaged the private sector in the construction and management of water or wastewater treatment plants. BOT contracts, which are typically used in this context, have been found most effective (i.e. fewer risks and better assurance of revenues) for the private sector, as they are confined to a unique and defined facility, they generally include turnkey conditions, and they do not entail direct interface with users. Mexico provides a good example of such experience (as described in Annex 2.A1). The Mexican case also illustrates the limitations of the BOT system. While it can make up for a shortage of infrastructure financing, the signature of BOT contracts has not improved the efficiency of water suppliers, and service costs have gone up.

The country's capacity to commit itself to more complex forms of PSP will depend on its ability to institute the framework conditions necessary for their success. In Tunisia, the diagnostic assessment shows the need for reforms in the water sector in order to attract private sector interest, but also the need that the partnership be beneficial for all stakeholders. International experience reveals the potential gains as well as the problems inherent in more complex forms of PSP, and the critical importance of framework conditions (contractual, but especially non-contractual) governing the partnership's viability. In the case of Tunisia, given the financial problems facing the water sector authorities, PSP is seen primarily as a way of overcoming the sector's financial deficit and alleviating the fiscal burden it generates. Success with this objective (and with the forms of PSP it implies) will however require a number of preconditions that are not necessarily in place at the present time, as well as some reforms to enhance the governance of the water sector.

Ensuring the financial and fiscal sustainability of private sector participation

Strengthening the autonomy of the water operators

SONEDE and ONAS are supposed to operate as private enterprises, but they lack autonomy, a fact that is reflected in their economic model and which casts doubt on their sustainability. The two operators have accounting and financial processes that are comparable to those of private corporations, such as the publication of an annual financial report. Nevertheless, their autonomy is often compromised by the number of controls to which they are subject and by the political and social obligations imposed on them.

- Raising investment capital can be a difficult and time-consuming process. Beyond the "programme contracts" that define their performance and establish their production objectives, SONEDE and ONAS are largely dependent for their investment budget on a number of ministries. SONEDE and ONAS are required to negotiate most of their investment budget allocation with the Ministry of Finance, on the basis of projects and plans worked out in advance with their oversight ministries. In the case of SONEDE, this process begins with the preparation of a five-year plan covering investment projects in order to establish an overall budget planning framework. SONEDE must then present to the Ministry of Economy and Finance an annual set of investment project proposals consistent with the plan or accompanied by a justification. At that point, the Ministry of Finance and the Ministry of Regional Development and Planning, which were recently merged, undertake budgetary consultations to decide which projects will be pursued, based on Tunisian priorities and the budget for the current year. In fact, public enterprises in the water sector are neither authorised nor encouraged to operate as commercial enterprises when it comes to meeting their investment needs, and as a result they lack financial autonomy with respect to their investment projects.
- The operators are subject to many financial and administrative controls. A board of directors comprising representatives of the key ministries (such as the Ministry of Economy and Finance and the Ministry of Equipment) oversees the management of the public enterprise. SONEDE and ONAS both have an internal audit office and other management controls; the Board of Directors is also empowered to create, as necessary, an additional permanent audit body. External auditors, who are appointed every three years, and the national audit office (*Cour des Comptes*) constitute an additional level of control. In the end, there are several public agencies that monitor the budget and the management of SONEDE and ONAS, independent of their own internal controls. This may indeed guarantee strict observance of rules and the legality of procedures, but is also a means of exerting political pressure on the day-to-day activities of Tunisian operators, and it increases administrative costs.

With more autonomy in their financial management, SONEDE and ONAS could function as efficient public institutions. The controls currently in place, both internal and external, guarantee strict execution of the SONEDE and ONAS budgets. The fact remains, however, that the management of these public enterprises could be made more fluid and responsive if, instead of subjecting them to multiple external controls, they were imbued with a stronger culture of internal control and audit, in accordance with good international practice. Moreover, the move from a set of budgetary and control mechanisms to an approach based on results rather than on inputs would give them greater financial autonomy, particularly for meeting their investment needs and for complying with the indicators in their "programme contracts". Under the leadership of the Ministry of Economy and Finance, the Tunisian government has already launched some pilot initiatives for results-based budgeting: these began with five ministries in 2012, and will be extended to all ministries by 2015. This approach should inspire a budgetary and financial culture focused on outcomes rather than on inputs.

Public enterprises will never become autonomous unless they are allowed to charge tariffs that cover their real costs. Tariffs are not being used today as an instrument to secure the financial viability of operators. There is currently an opportunity to depoliticise the setting of tariffs and to undertake a technical discussion on their calculation and

approval. First, international experience shows the importance of developing a pricing methodology that clarifies the process and the criteria for updating tariffs. Such a methodology would make the pricing process (calculation, adjustment and approval) more transparent and would allow input costs, such as inflation or the electricity price, to be taken automatically into account. Publication of the tariff-setting methodology and related technical reports, as well as those concerning the use of revenues, would promote a better understanding of the links between tariffs and the sustainability and quality of public services. Yet it will still be important to ensure that tariffs are set with a clear understanding of the constraints imposed by consumers' purchasing power and their capacity and willingness to pay, as well as their satisfaction with the level of service. Such an understanding must be based on an evaluation of the economic and social impacts of the tariff schedule and the current system of cross-subsidies, and of alternative scenarios or tools (such as targeting the poor population).

A pricing policy must be accompanied by measures to reduce costs in order to maximise its impact and institute a virtuous circle that will enhance public services and consumer satisfaction. International experience shows that, without strict cost controls and incentives for efficiency, raising prices will not by itself improve cost recovery. A better bill collection rate and proper resource management capacities are also preconditions. A study of water pricing in the Russian Federation, for example, showed that although the tariff schedule rose at more than three times the inflation index, operating and maintenance cost recovery still fell short of 100%. These conditions are also essential for boosting consumer trust, a key element for gaining acceptance of price increases. The authorities also have an important role to play in encouraging higher bill collection rates, by seeing to it that government agencies settle their utility bills promptly and ensuring that regulations and political actions do not affect invoicing and collection. The private sector can also help to boost operating efficiency and thereby reduce the costs of water service delivery.

Ensuring the fiscal affordability of PSP

Budget transparency in terms of the subsidies and contingent liabilities associated with the water sector is today a concern for SONEDE and ONAS, but it will also be a concern for PPPs in the future. The budget is the most important operational document available to governments for setting out and achieving policy objectives. The budgeting and accounting system adopted by the government must provide a clear, transparent and realistic picture of all activities, whether they include PSP or not. PPPs can entail future fiscal consequences, such as contingent liabilities, and these need to be monitored in the budgetary process. The current situation raises a number of questions:

- Current reporting to the public and to stakeholders on the state of the water sector is inadequate. There are deeply anchored management controls in place, and they have been further strengthened since the revolution. Yet there is no comprehensive information available on the extent and the breakdown of subsidies granted by the State, nor on the deterioration of infrastructure. ONAS has always received subsidies from the State, and SONEDE has also been subsidised for several years. Although these operating subsidies appear in the government's budget, loan guarantees are not specifically mentioned there, nor are the growing deficits of the water and sanitation utilities.

- When the central government issues a loan guarantee for a public enterprise, it runs the risk of default as well as an exchange rate risk if the loan is denominated in foreign currency. The International Monetary Fund (IMF) estimates that the external debt of public enterprises guaranteed by the Tunisian government amounts to 10% of gross domestic product. There is currently a lack of transparency and information on the type of contingent liabilities accumulated by Tunisia in support of public enterprises.[1]
- Given the deteriorating state of water infrastructure, a number of risks could materialise in the short term and could have an impact on the government's budget. The situation calls for introducing a robust structure for identifying and managing risks.

A medium-term expenditure framework (MTEF) can boost the collective capacity of the government and that of the Finance Ministry in particular, to programme and implement a sustainable budgetary process. Tunisia's Ministry of Economy and Finance is currently working on the gradual adoption of a results-based budget, which would include indicators on the estimated cost of investments. In parallel, a pilot MTEF project was initiated in five ministries in 2012, including the agriculture ministry. Work is underway to adopt this system in all Tunisian ministries. Together with more effective information collection and management, this new budget management system should do much to improve policy planning, by bringing greater visibility to budgetary commitments for future years.

State subsidies to the water sector should be budgeted and recorded in the accounts in a transparent manner. Cash transfers to water operators should be clearly identifiable in the Tunisian budget. These subsidies could be shown in the form of a lump-sum payment, but specific details on the grounds for disbursement and the results achieved should be spelled out. OECD best practices on budgetary transparency (OECD, 2002) stress the importance of providing detailed explanatory data on government expenses and revenues. For example, if a subsidy is used primarily to compensate for deficiencies in water service in disadvantaged regions, the reasons and the objectives for that transfer should be justified and specified in the budget, and they should be explained in an annual report containing non-financial performance information.

A strategic financial planning tool specific to the water sector is needed to supplement the existing budgetary arsenal and the operators' investment programmes. The introduction of an MTEF, in collaboration with all public authorities concerned, should help the government in planning and applying a sustainable budgetary model. To this end, water operators will need to compile information on investment needs, costs and available financial resources for meeting their needs. This information would serve as the basis for determining whether investment projects are viable under the government budget. Additionally, a strategic financial planning exercise for the water sector would help to achieve consensus on the needed reforms and on the choice of projects in the sector. International experience shows that such an exercise can stimulate debate on the feasibility of the objectives and policies adopted in the sector (thus helping to eliminate nonviable practices over time). It encourages a more realistic approach to investments in the sector, and offers a basis for discussion and co-ordination among potential donors (OECD, 2011). It could contribute to the preparation of a solid pipeline of projects as an incentive for private sector participation in the water and sanitation sector.

The budget should specify all the contingent liabilities that could arise from government commitments in the water sector, so as to manage risks in the public interest. Given the sector's current dependency on subsidies and loans from donors, the government should take steps to evaluate and disclose the contingent liabilities and the debt guarantees issued, so as to minimise fiscal risks. According to OECD best practices for budgetary transparency (OECD, 2002), all contingent liabilities, regardless of their amount, should be indicated in the budget, in the midyear report, and in the annual financial statements. Whenever possible, the total amount of contingent liabilities should be indicated, with their distribution among broad categories, according to the nature of the commitments. Retrospective information on payment defaults should also be provided whenever they occur. If Tunisia decides to undertake an ambitious PPP programme, it will be all the more important to quantify, publish and monitor closely the risks that could give rise to liabilities associated with guarantees granted for infrastructure investment projects. With transparent reporting and proper accounting for these future obligations, fiscal risk management could be improved. One possibility would be to prepare reports on government obligations each year in parallel with the draft budget law, as is done in Chile, where the Finance Ministry submits an annual report to Parliament on contingent liabilities. This allows for close monitoring of government liabilities, whether current or contingent, by both the executive and the legislative branches.

Establishing the institutional foundation for sound management of PSP

Tunisia's institutional framework is currently in transition, now that the new constitution has been adopted. With the merger of certain ministries and the reorganisation of others, institutional responsibilities should be reinforced and clarified in order to ensure value for money in public expenditure. The Recommendation of the Council on principles for public governance of public-private partnerships (OECD, 2012c) stresses the need for a clear, predictable and legitimate institutional structure as an essential condition for the success of PPPs.

- An institutional structure conducive to sound management of PSP requires authorities with clear responsibilities so that projects will be undertaken with a view to maximising value for money. Tunisia has experienced public enterprises in the water sector, a strong administration, and a well-established structure for interministerial co-ordination in selecting investment projects. While the ministries of finance and regional development were recently merged, their responsibilities for planning investment projects have not changed. The administrative process in place is however cumbersome and time-consuming, and these drawbacks may be exacerbated with the proliferation of control levels, especially during tendering procedures.
- Recognising the complexity of PPP, it is important to strengthen government competencies in achieving value for money. These include better preparation of projects, and especially of the mechanisms for identifying and mitigating risks. The Concessions Unit (*Unité de suivi des concessions – USC*) created within the Prime Minister's Office by Decree 2013-4630 of 18 November 2013 may be considered as the precursor of a PPP unit. It is typically responsible for equipping the authorities concerned with the capacities they will need them in light of the law now in preparation. The draft law on PPPs introduces the notion of a PPP unit that would alleviate administrative tasks during the procurement phase for PPP concessions and projects.

If the PSP option is to be seriously considered, the legislative framework for PPPs will have to be strengthened and brought into line with existing laws. The draft law on PPPs, now under review in Parliament, offers a unique opportunity to address the critical gaps in the area of PPPs. The law will also help to define more carefully the contractual relationships between public and private entities within a PPP, and it will include clauses on renegotiation and dispute settlement. The concept of "delegation of public service", which will give the private sector a broader scope of action in the water sector in particular, is another key element of this law. In light of the new elements that will have to be established by the future law on PPPs, it would be well to ensure that these provisions are in line with those contained in sector legislation, in the law on concessions, and in the new investment code.

Following the adoption of the PPP law it will be important to reinforce the administration's capacities in the PSP area, particularly as they relate to PPPs. This could be done by instituting a PPP unit (which is called for in the draft PPP law), endowed with technical, financial and legal expertise to guide public policies, and tasked with the mandate to decide which projects should be pursued as PPPs, to ensure co-ordination among stakeholders, and to equip the administration with the necessary skills. The unit will need to draw upon the PPP expertise already acquired within the Prime Minister's Office and the Ministry of Economy and Finance. Moreover, this new institution's mandate will have to be co-ordinated with that of existing entities, such as the USC and its advisory commission, in order to clarify the responsibilities of each and, if necessary, arrange for the transfer of responsibilities. In order to establish suitable capacity at the sector level, the future PPP unit could be supported by PPP units or competencies within the line ministries or the oversight authorities (in particular the Ministry of Agriculture or the Ministry of Equipment). In line with the 18 OECD countries that have established one or more PPP units in their central administration, the unit should address three key issues: *i)* how to institute a procedure to ensure that projects maximise value for money? *ii)* how to verify systematically that projects are providing affordable services, both for users and from the budgetary viewpoint, and to ensure that the budget envelope as a whole will be sustainable over time? *iii)* how can these two issues be combined to prepare a pipeline of viable projects?

A close link must be preserved between the budget and planning processes. The linkages and dealings between public enterprises in the water sector, the oversight ministries (Ministry of Agriculture and Ministry of Equipment, Territorial Planning and Sustainable Development), and the newly merged ministries of regional development and finance represent a coherent structure for the seamless sharing of information on the country's priorities. The recent merger of these two last ministries could make for closer co-ordination, provided the roles and responsibilities of each are clearly identified. Tunisia has a robust administration with controls at several levels over the delivery of public services. Once the PPP unit is in place within the Prime Minister's Office, it should serve as a "single window", supervising projects and verifying value for money. The Ministry of Economy and Finance should ensure that there is a close link with the budgetary process and verify that projects are affordable. Within this institutional framework, the contracting authority should be responsible for tendering and monitoring PPP projects.

Ensuring value for money through public-private partnerships

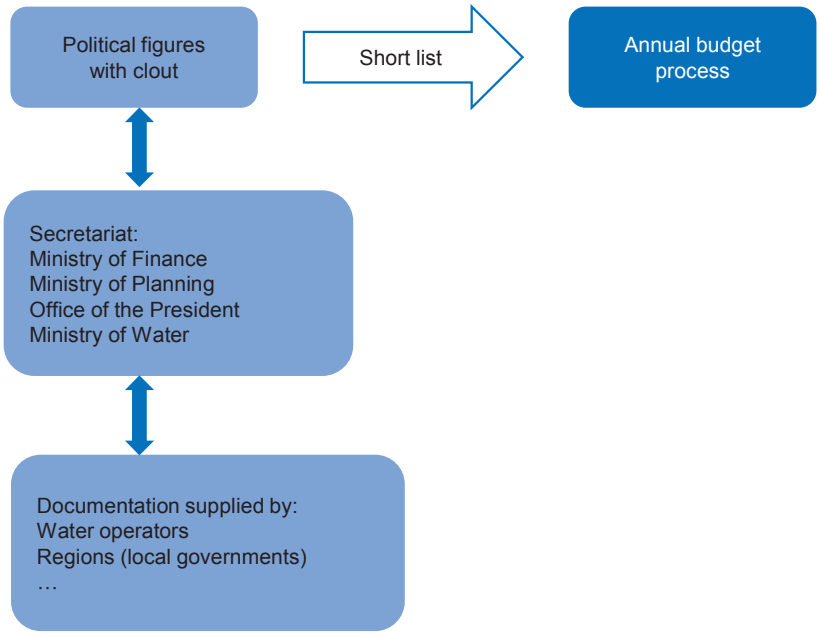
Given the complexity of PPP, the public authorities will need a solid mechanism for assessing value for money, based on a reliable public-sector comparator and on transparent and consistent directives relating to the non-quantifiable elements that must be taken into account. Annex 2.A2 provides a definition of value for money in contracts of the PPP type, and reviews the various methods adopted by OECD countries in this area.

- The multi-player co-ordination process within the Tunisian administration provides a solid basis for prioritising projects in light of the national political strategy. The Secretary of State for development and international co-operation must verify that major investment projects are consistent with that strategy. It determines the order of priority among the different sectors of the economy as input to the selection of investment projects. The Ministry of Agriculture and the Ministry of Equipment, Territorial Planning and Sustainable Development play an advisory role in project planning by water operators. The Ministry of Economy and Finance then decides on the annual budget allocation for the selected projects, taking into account fiscal constraints. Sectoral strategies, which include indicative targets, are defined with input from the regions and the competent ministries as a function of the national priorities.
- Since the revolution, there has been greater emphasis on consulting the de-concentrated levels of government with respect to the selection of projects and the order of priority that they should be given. Despite the suspension of five-year plans since 2011, the regional development offices and their directors are supposed to co-operate closely with the Secretariat of State for development and international co-operation in the setting of priorities and the planning and monitoring of regional programmes. Regional development commissions have also been created within each *gouvernorat*, and they include representatives of the National Constituent Assembly, political parties, business and labour, and the private sector, among others. These commissions have an advisory role and are expected to make the regional development process more inclusive and dynamic. In this way, various qualitative considerations are taken into account in the selection of investment projects in Tunisia. Moreover, technical and socioeconomic feasibility studies are conducted for most investment projects. The fact remains, however, that cost-benefit analysis could be more thorough and more systematically applied to take into account quantitative as well as qualitative aspects in examining projects for implementation at the national and regional levels.
- As in many other countries, there is no specific criterion to guide the choice between PPP and conventional procurement in Tunisia. As its experience has been essentially confined to subcontracting, the government has not yet prepared a public-sector comparator or any other tool capable of determining comparative advantages, beyond construction costs, when it comes to public tendering for a project.

In addition to a reinforced process of priority setting, a list of investment projects in the water and sanitation sectors should be drawn up. The governments of several OECD member countries have investment plans that are approved in their totality at the highest political level (for example, the National Infrastructure Plan in the United Kingdom or the

"Investing for France" plan). The basic principle of such a priority setting process is recognised to some extent in Tunisia, but it will have to be reaffirmed in light of the ongoing political and institutional changes. Moreover, it would be useful to select a shortlist of essential projects in the water sector, drawn from the longer list adopted by the government. If this list carries the support of figures with real political clout it will have the visibility and the credibility needed for attracting investors. To create an attractive pipeline of projects in Tunisia's post-revolutionary setting will require a renewed political commitment to specific projects. This shortlist of investment projects will become meaningful once it is included in the national budget, taking into account the payments or subsidies needed for each of these projects. Figure 2.2 shows the inputs needed for an effective planning and priority setting process. A long list of projects with substantiating documentation is submitted by stakeholders in the water sector to a "Secretariat" comprising the key ministries. Those ministries discuss that list among themselves and with the stakeholders to decide which projects should be included in the shortlist. That list is finalised at the highest political level before being entered into the budgetary process.

Figure 2.2. **Setting priorities in the water sector at the highest political level**



A comparative database will be needed for introducing equitable rules of the game for selecting between the public option and the PSP option. A key element for successful collaboration with the private sector is to ensure that the two options are compared without bias. To this end, a "public sector comparator", or some other means of testing value for money, should be instituted. From this viewpoint, Tunisia should begin by developing a strategy for gathering data on water and sanitation projects already under way. An estimate of the real costs of a conventional project throughout its lifecycle is needed in order to make a comparison among the different types of service delivery in the water sector. The fact is that, in contrast to construction costs, the operating costs of investment projects are usually unknown, and there is no tool for calculating them. Starting from the analyses already performed by the Tunisian authorities, it would be well to develop an analytical framework for investment projects that takes into account both quantitative and qualitative considerations.

Box 2.2. Criteria that should be considered in a procurement option test

- Can risk be clearly defined, identified and measured?
- Can the right type of risk be transferred?
- Is the size of risk large enough to serve as an incentive towards value for money?
- Are private partners willing to accept the risk to be transferred to them?
- How much competition is there for the market?
- How large are the benefits from combining the construction phase and the operational phase of the project in a whole-of-life contract?
- Can the quality and quantity of service output that the private partner must deliver be clearly measured so as to deal with possible cost and quality trade-offs?
- How much innovation is required?
- What is the availability in the public sector of the skills needed to operate the asset?
- How rapidly and significantly does the technology needed for the project change?
- How much flexibility does the government want to change the output specifications of the service to be delivered?

The choice between a pure PPP (depending on the government for its revenue stream) and a concession (depending on user charges levied directly on the beneficiaries of the service) adds further criteria:

- Is demand sufficient to render the levying of user charges a viable source of income for a concessionaire?
- Does the service create externalities that might give rise to a free-rider problem and hence lead to demand not being revealed by beneficiaries?
- To what extent is there a need/desire by the government to subsidise all or part of the beneficiaries of a service?

Source: Burger, Philippe and Ian Hawkesworth (2011), "How to attain value for money: Comparing PPP and traditional infrastructure public procurement", *OECD Journal on Budgeting*, Vol. 11/1, OECD, Paris, http://dx.doi.org/10.1787/budget-11-5kg9zc0pvq6j.

It is important to note that there is no need to create a new methodology "from scratch" for calculating value for money. The basic methodologies used in South Africa, in France or in the United Kingdom offer a good point of departure. In the United Kingdom, before proceeding with any infrastructure project a full economic analysis is conducted, comparing the value for money that is expected to be achieved through each of the available procurement options (described in the "HM Treasury Green Book"). An ex-ante test prior to tendering can help the government decide whether a project should be considered for PPP. Box 2.2 presents the key issues to be considered in making this choice.

A competent team must be in place to monitor the projects and to engage with the private partner during the operational phase of a PSP project. This is an essential condition (with the inclusion of performance objectives in the contract) to preserve value

for money throughout the operational phase of a project, and thus to avoid costly renegotiation. Tunisia has had problems because of its lack of experience in negotiating concessions, and the absence of clearly defined contractual renegotiation clauses. These shortcomings have in fact "tilted the playing field" to the benefit of the private sector in the past, such as in the energy sector. A 2010 study by the United Kingdom's National Audit Office of 76 projects in the operational phase showed that having proper skills for the specification, negotiation and management of project monitoring was essential in maximising value for money. From this perspective, it may be appropriate to hire an external expert for complex projects. The study also underlines the importance of retaining institutional memory through proper knowledge management.

Enhancing transparency mechanisms and strengthening stakeholders' engagement

In the wake of the "Arab spring" and the profound political, economic and social upheavals it sparked, Tunisian citizens are demanding a more important role in decisions concerning essential services such as water and sanitation. The political and social crisis gripping Tunisia demands the immediate implementation (or strengthening) of tools for information, consultation, dialogue and joint decision-making in order to win general public acceptance of water policy objectives, which have yet to be strategically defined, as well as the means for implementing them. Following a decade of top-down reforms in the water sector in Tunisia, it is urgent today to involve all stakeholders, in particular civil society and the sub-national authorities (*gouvernorat*s and municipalities) in a dialogue to define guidelines for the country in the management of water and sanitation services. With the recent adoption of the Constitution, with heavy input from civil society, there are good prospects for a democratic and participatory republican regime under the rule of law. The water sector could in this way become a symbol of a government that is more open and more attentive to citizens' expectations.

At a time when everyone is looking to government to lay the basis for consolidating the democratic transition, the risk of resistance or even of radical social opposition to private sector participation cannot be dismissed. The tumultuous experiments with PSP and the PPPs that were cancelled in the face of popular outrage in Latin America (Argentina and Bolivia) provide evidence. In the absence of smooth and instructive communication between the governing elites and the citizens, hostile reactions (perhaps but not necessarily ideological at root) can overwhelm economic considerations and rational factors. The recent development of social engineering programmes by private operators (for example Suez Environnement) in the context of the new business model for water in developing countries testifies to the importance of dialogue with stakeholders before choices are made as to the mode of management. The forms of PSP practiced by multinational enterprises have also changed as a result of feedback from experience, shifting from a "contract" focus (a 20 or 30-year concession) to a "process" focus based on transferring know-how and technical skills through management contracts that are more flexible, less risky and less demanding in terms of investment.

Work at the OECD has shown that stakeholder engagement is not an end in itself, but rather an instrument of governance that can help achieve better outcomes in terms of efficiency, transparency, participation and equity in the management of water and sanitation services. Stakeholder engagement is an effective tool for addressing territorial and institutional fragmentation in the water sector, aligning divergent objectives, empowering decision-makers and service providers, and supporting results-oriented

activities (OECD, 2009b). Strengthening stakeholder engagement (between the public, private and non-profit sectors) can help governments to:

- raise awareness about the challenges in the water sector, in particular the growing water scarcity and its inevitable impact on the availability and quality of water resources;
- avoid conflicts over water allocation between final users, and make the necessary trade-offs;
- ensure the political acceptability of private sector participation, where it is being considered, through better communication of the ins and outs of different management modes, as well as their limitations;
- increase citizens' willingness to pay for a service, by providing better information about the economic value of water as a resource and about the costs of water production, treatment and management.

This section proposes options for reinforcing dialogue with stakeholders in the water and sanitation sector in Tunisia, and in particular for securing greater participation by civil society and the sub-national authorities in order to empower the various players at all levels and achieve greater transparency.

Engaging the public on a broader scale

Social forces can have a real influence on water policies in Tunisia and can in fact drive reforms if the dialogue fora in place are consolidated and strengthened and if new mechanisms are introduced. When service providers are judged by the quality of service they provide, when information is available to everyone, and when stakeholders are able to use this information to influence policy choices, new interests can emerge and create a consensus needed to support the reform process.

Accountability is a key factor if public policies and water projects are to produce the expected results and benefits. In Tunisia, it is the "external" accountability of government and operators vis-à-vis citizens and users of water and sanitation services as much as the "internal" accountability of the various public agencies and enterprises that must be strengthened (World Bank, 2007).

There are several degrees of citizen engagement, ranging from information sharing to various consultative arrangements leading to a more significant input into the decision-making process. Dialogue with stakeholders must be based on the principles of clarity of focus, representativeness and transparency. This process takes time and resources, and should therefore be organised strategically at important stages of policymaking and should preferably start at the early stage of the projects (OECD, 2009a).

Tunisia has several instruments for public participation, but their field of application and their scope need to be broadened to give civil society the keys to understanding and the levers for action necessary to play a relevant role and to communicate regularly and continuously with the operators.

Access to information and accountability to users in the water sector

The availability of information, if it is used advisedly, can be an important lever for improving service quality, especially in Tunisia, where the operators are in a monopolistic position. Decree Law 41 on the right of access to administrative documents

of public agencies – to be replaced shortly by a law on the right of access to information (HuffPost Maghreb, 2013) – gave a strong signal for involving citizens in the government decision-making process in Tunisia. Free access to information in the administrative and financial fields, in particular, is an important step towards ensuring accountability and transparency vis-à-vis the citizens. At the present time, while information on service performance exists, it is communicated in a format that makes it difficult for stakeholders to use. The legal arsenal governing the communication of information is being expanded with respect both to the consultation dimension and to the obligation of ministries and public enterprises to publish their reports online.

The efforts recently undertaken to develop performance indicators need to be consolidated and their results published. Making those indicators available to stakeholders is an essential condition for improving local service. The programme contracts already in place between the government and the operators provide a solid basis for collecting information and monitoring performance in terms of service quality. The indicators developed by SONEDE (based on work of the International Water Association, IWA) and collected for each of the 38 districts, grouped into four regional directorates, cover essentially the technical aspects of water supply, and not the quality of service. Work has recently been done on the possibility of extending those indicators, and that work should be pursued, for indicators of commercial performance and user satisfaction are necessary and could reinforce the efforts of the SONEDE quality management unit, with more thorough user satisfaction surveys, among other things. Since 2007, studies have been conducted to define the indicators, the method and the authorities responsible for producing them (for example concerning operations, human resources for measuring personnel productivity, indicators of equipment, financial service, and deadlines). SONEDE has also established a water balance (non-revenue water), but other indicators are still pending (in particular those relating to service quality), although the bases (including satisfaction surveys) exist. It is important that these indicators should be defined over the medium term: the information collected should be disaggregated by region in order to allow local performance monitoring, and it should be published (at a single, readily accessible website) to encourage improvements in performance and service quality.

The credibility of information will depend both on the importance that operators attach to it (and hence on the use of these data for strategic measures – establishing tariffs or penalties in case of poor performance, for example) and on the confidence that sector stakeholders have in it. Meeting information needs will also require producing data beyond those supplied by the two principal operators, and to do so in line with the policy objectives that these same operators are supposed to observe. In this context, one option that the authorities could consider is to assign the responsibility for monitoring and validating performance to an independent third party, particularly as the contacts between the operators and the oversight authorities also entail obligations for the latter, who are consequently stakeholders. In many countries, this "third party" takes the form of an independent observatory, often headed by academic researchers, as in the case of Mexico (Box 2.3).

Tunisia's national water information system (SINEAU) could be improved by including dimensions relating to "services" such as consumption or tariffs, and by communicating it to the citizenry to reinforce transparency. At the present time, it responds in part to users' data needs, but its scope of application is restricted. For the time being, it concerns essentially water resources (SYGREAU, which is headed by the General Directorate of Water Resources, DGRE), water pollution (the COPEAU/SPORE control system) and soil quality (the SISOL monitoring system). International experience in this area could provide input for expanding the system.

Box 2.3. The SIAPS information system in Mexico

The water and sanitation information system in Mexico, SIAPS (*Sistema de Información de Agua Potable y Saneamiento*) is a technological platform created by researchers at the University of Mexico (COLMEX, Colegio de México) which runs a geographic information system in support of decision-making and enhanced water management.

For the short term, the objectives of SIAPS are to map the available information on water, which has hitherto been scattered among several government institutions, to analyse the data on the basis of requests by the users, to develop data management functions and produce results useful to consumers, and to make the SIAPS an interactive tool.

For the medium and long run, the plan is that SIAPS will develop an environmental dimension at the river basin level. The system will provide an accurate analysis of water resource management, in particular as it relates to conflicting water and sanitation uses. The system is also expected to develop performance indicators that could be used as a tool by consumers, municipalities and civil society organisations for a co-ordinated approach to water problems, and the identification of sustainable solutions.

Source: OECD (2013b), *Making Water Reform Happen in Mexico*, OECD Studies on Water, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264187894-en.

A new version (2.0) of the Tunisian information system could enhance transparency and broaden access to information. Wider dissemination of more complete data is an important factor in improving the performance of water and sanitation services. It also helps to improve understanding of the situation in the Tunisian water sector in different settings – rural, urban and peri-urban – and will make for more informed public input into the decision-making process.

- It should serve to integrate sub-national data for a better reflection of territorial disparities, reflecting for example consumption levels in various cities and for various uses (domestic, agriculture, industry, tourism etc.), the quality of drinking water, the rate of wastewater treatment, the performance of water and sanitation services, and production costs.
- It should lead to an assessment of the quality of data collection systems throughout the country, and effective co-ordination among the responsible bodies (SONEDE, ONAS, GDAs, private service providers etc.) in order to harmonise information. This information would serve as a basis for considering the differentiated impacts across the political (centralised) service management territories of SONEDE and ONAS and the specific measures they might take to improve performance and remedy the observed shortcomings (in terms of coverage, quality, complaint handling etc.), for example in rural and peri-urban areas.
- It should also allow a general broadening of access to information technology and the public availability of official data. The new SINEAU will need to have a regular monitoring system for making the necessary updates.

While a new version of the SIAPS may overcome part of the water information deficit, however, it will not solve the problem fully or integrate all the missing information. To do so will require more attention to economic and pricing aspects (who pays for what) and a political will to establish a reliable and transparent database, two

conditions for the success of private sector involvement and of the infrastructure project pipeline. In addition, the information systems already available show a number of weaknesses. Requests by various donors for information relating to project monitoring have led to different systems and indicators, and information has to be gathered for each of them. A degree of harmonisation is needed, notwithstanding the operating rules specific to each donor.

Communication as a strategic consideration for government and operators

The water sector in Tunisia also suffers from a dearth of communication between government and service providers, and more broadly among the various stakeholders. There is a lack of awareness about environmental problems, and communication with users is not always seen as a priority by government bodies and operators, including the Communication Divisions within SONEDE and ONAS, which often lack qualified personnel for pursuing true public communication campaigns. At the present time, the communication divisions of the two operators have no real communication plans, nor do they have the financial resources needed for effective communication activities. In 2004-2005, SONEDE attempted a water awareness campaign through spot advertisements and training sessions, but that strategy did not achieve the expected results. There may be a role here for donors, whose technical assistance programmes could include components for encouraging Tunisian businesses and government authorities to make communication a strategic activity in the future. The authorities also have trouble identifying the target audience, and this diminishes the return on the purchase of often costly advertising space in the media.

Experience in OECD countries has shown that water communication campaigns can be effective in transmitting clear and understandable messages to the general public, establishing dialogue, and encouraging a shift in water consumption habits. Similarly, increasing numbers of countries in the Middle East and North Africa are investing in the media. In Egypt, for example, all the major dailies publish weekly stories on environmental activities and they report the more serious violations of environmental legislation. Since 2000, the government has had in place an environmental information programme for journalists, and has been conducting a public awareness campaign (World Bank, 2005).

Objectives could be set for encouraging the development of communication and media plans geared specifically to large consumers (businesses, hotels etc.), consumer associations, households etc., and at the same time for strengthening operators' communication skills. For example, the "2030 Water Agenda" adopted in Mexico in 2011 calls for water-related communication campaigns as an economic and social development tool, together with information dissemination programmes in co-operation with the education and industrial sectors to make the public aware of the challenges in the regions where they live, and ways of addressing them (OECD, 2013b).

Strengthening the communication capacities of service providers is essential for achieving greater user involvement, starting with clarification of the target audience. A mapping and analysis of stakeholder expectations as well as their mode of communication (newspapers, social networking etc.) could contribute to the development of effective media strategies. Strengthening the communication divisions of SONEDE and ONAS and creating true customer service units would improve their capacity to respond to complaints from consumers, to anticipate their needs, and to understand the evolving context. The new 2050 water strategy now being developed is an opportunity to

make communication a cross-cutting activity as part of a water sector review. Today there are no plans to celebrate World Water Day, although this could be an opportunity to disseminate messages about the value of water in the context of water scarcity.

Strengthening and stimulating the existing participatory and consultative forums

The existing participatory and consultative forums could be improved by systematising them and broadening them to deal with questions concerning the delivery of water and sanitation services, as a means of engaging consumers. Ensuring public access to information about water and sanitation is an essential step toward effectively engaging the public, and consumers in particular, in the decision-making process. But it will have little impact unless it is handled through fora where citizens can express themselves and take action. This will require some kind of institutionalised participatory mechanism in Tunisia, beyond informal processes and occasional initiatives, in order to ensure real consultation and input for projects and reforms in the water sector.

Groupements de développement agricole

The "agricultural development groups" (Groupements de développement agricole, GDA)[2] are today the main formal mechanisms for user participation in water management in Tunisia, but they are involved only in the supply and management of drinking water systems in rural areas. The GDAs are responsible for water quality and conservation, and they have a management contract with the government.

However, the GDAs often face serious financial difficulties – their revenues and their recovery rates are relatively low – as well as management problems, as they rely primarily on volunteers who do not always have the required skills to make repairs to the networks or to handle complex accounting matters (World Bank, 2005). Moreover, they have few available tools for dealing with customer complaints or communicating with rural people about their expectations. The province of Taroudant in Morocco (Box 2.4) illustrates the positive impact of greater local involvement at the different stages of a water project, particularly when it comes to social acceptance and payment of bills.

Making the GDAs more professional by strengthening their technical and administrative skills is a first step toward ensuring effective stakeholder participation, and this holds as well for projects involving the private sector in rural areas. Training workshops could be organised on priority topics such as maintenance of water networks so as to avoid breaks that disrupt service delivery. This will also require better horizontal co-ordination among the GDAs. Sharing experience and transferring knowledge among peers are useful tools for learning from past mistakes and for reproducing good practices on a larger scale. An annual meeting of the GDAs could be considered, or even the creation of a national association of GDAs, with a view to compiling experience and providing feedback, conveying regional concerns to the central level, and playing a representative role with government bodies in the decision-making process. The National Association of Water and Sanitation Service Providers (ANEAS) in Mexico illustrates how a federation of this kind can add value by disseminating know-how and knowledge and drawing lessons from the experience of sister organisations.

Box 2.4. **User participation in drinking water supply: The province of Taroudant in Morocco**

The rural collective water supply programme (PAGER) was launched in 1995 to expand access to drinking water in the countryside. In all, 74 water supply systems were constructed between 2002 and 2008 in the province of Taroudant, in southern Morocco, serving a population of 86 000.

The conditions set for the construction of these systems included management by a users' association, application of water tariffs that cover management and maintenance costs, as well as a 5% financial participation by users in the investment costs. Consulting firms worked with the communities to create users' associations, whose members were elected at a general meeting. Under the supervision of the consultants, technical studies were performed and validated by the local population at each phase of the project. It was only after this validation process that people made their financial contribution.

The consultants provided training to the users' associations during project construction, and then offered ongoing coaching during the initial years of operation. The users established their own pricing structure, based on a dual tariff that involved a fixed charge and a volume-related charge, covering in principle all fixed costs, including renewal of the electromechanical equipment, as well as the variable costs.

In 2008, 99% of users were paying their bills, even though the price per cubic meter was higher than in the cities. The average bill was 45 dirhams (EUR 4.5) per month per connection in 2008. The maintenance and replacement funds created by the users' associations had a total available balance of 7.3 million dirhams in 2008, or 150% of annual outlays. Distribution losses averaged 13%.

Source: Office National de l'Eau Potable(2009), "Programme d'approvisionnement en eau potable des populations rurales dans la province de Taroudant et de Tisnit", Rapport d'exploitation des SAEP, 2008, KfW, IGIP/Beller.

Non-governmental organisations

The Tunisian revolution sparked increased involvement by civil society in various fields of public life, including the water sector. As part of a post-revolution humanitarian initiative, many NGOs were established in this sector, which had previously been almost entirely in the hands of the State. As early as 2004 a survey by the Ministry of Agriculture had underlined the important role of NGOs in setting objectives for the country's sustainable development and in implementing selected programmes (World Bank, 2004). Since the revolution, however, these NGOs have played a growing role in the countryside, where the government presence is sometimes limited, although there is as yet little information on the scope of their activity in the water sector.

The *Portail Humanitaire* ("Humanitarian Portal"), an interactive platform listing NGOs engaged in all fields throughout the country, covers only a fraction of Tunisian organisations working for access to water and sanitation services. Among them, *TunisiEntraide* has established a solidarity network among Tunisians to raise funds and help finance various initiatives for improving living conditions in the country's most disadvantaged regions, with a particular emphasis on water and sanitation projects (Box 2.5).

Box 2.5. **Examples of water and sanitation projects sponsored by TunisiEntraide**

In 2011, TunisiEntraide sponsored a project[1] for drilling wells in the locality of Nebeur, gouvernorat of Kef, in partnership with ATTAC [association for the taxation of financial transactions and citizens' action]. As a first step, a feasibility study was conducted to determine the need for wells, their costs and the advantages they would yield. The second phase involved the drilling of a 6-metre well producing a fairly significant volume of water, installation of a submersible pump with an electrical connection, and construction of a reservoir and a livestock watering facility. Thanks to this project, more than 150 families and their livestock should have access to drinking water, and any surplus can be sold.

In 2012, TunisiEntraide completed a project called "L'eau, c'est la vie" ["Water is life"] for upgrading the sanitation system in the village of Dhouaouda, gouvernorat of Kasserine. Until then, water was available in the village only one day in three, as the conveyance system depended on a manually-activated pump. The project installed a remotely-triggered device that automatically starts the pump and tops up the reservoir as needed, with no human intervention.

Note: www.tunisientraide.org/tunisie-sans-eau-sous-le-soleil-a-175-km-de-tunis.

Source: Official Internet site of TunisiEntraide: www.tunisientraide.org, accessed December 2013.

Because of their ability to respond flexibly and quickly, small NGOs can be effective instruments for mobilising local populations (Perroulaz, 2004). Some, like TunisiEntraide, have been successful in raising funds and carrying out projects to improve water and sanitation services. These small NGOs often work very closely with the local populace and they should capitalise on this opportunity to make themselves a vector for mobilising the population.

Large-scale organisations and associations also have a role to play in Tunisia for improving public participation in the water and sanitation sector. The Tunisian Consumer Defence Organisation (OTC), established in 1989 to work on behalf of consumers, has been affiliated with Consumers International since 1995. Its specific objectives are: *i)* to assist consumers, to protect and defend their interests at all levels and in all sectors; *ii)* to advise consumers, inform them and make them aware of the principles of good management; *iii)* to represent consumers before the various official bodies in all fields and at all levels; *iv)* to work to ensure that national development guidelines take into account the interests and aspirations of consumers (Institut National de la Consommation, 2013).

Other international experience could provide a model for strengthening co-operation between the ODC and SONEDE. Since 2004, the ODC has had in place a co-operation agreement with SONEDE for raising public awareness about saving water and improving the response to user needs. However, the scope of that agreement appears limited, and it has not yet proven very effective in communicating with users about the issues that concern them such as water pricing and service quality. Some interesting experiments conducted in other countries could serve as a model on this particular point. In France, for example, the Union fédérale des consommateurs ("UFC-Que Choisir"), the oldest consumers' association in Europe, represents the consumer interest before all official bodies with a view to improving living standards. Since its creation in 1951, it has come to carry considerable weight in dialogue with government, business, political parties and labour unions (Box 2.6).

Box 2.6. **UFC Que Choisir in France**

The Union fédérale des consommateurs – Que Choisir (UFC-Que Choisir) has 158 local associations and 300 offices throughout France. Their mandate includes informing, advising, defending the consumer interest and representing consumers at the local level. They serve hundreds of thousands of consumers and they handle nearly 100 000 disputes a year. UFC also works to give consumers the means and knowledge needed to be informed about matters that affect their living standards, and to take action accordingly. UFC publishes its own reviews of comparative product tests and surveys. Its publications include "Tous les droits du consommateurs" [roughly, "All about consumer rights"], which was updated in 2011.

Among its many fields of interest, UFC is involved in issues of water pollution, water shortages and pricing. It has developed several tools, including a water quality comparator. People are urged to assess the quality of drinking water in their community using a test for six pollutants: nitrates, pesticides, coliform bacteria, selenium, aluminium and radioactivity. The comparator is accessible at the UFC website, together with information on the risks posed by each of these pollutants.

Source: Official site of UFC-Que Choisir: www.quechoisir.org, accessed December 2013.

The ODC is also active in relations with the private sector. It serves as a bridge between consumers and service providers, especially with respect to sanitation, in light of the ONAS objective of delegating 40% of the distribution network to private enterprises by the end of 2014 (Attia, 2009). More systematic involvement of the ODC would bring greater transparency to the activities of private enterprises, with which the citizens are often unfamiliar. Co-operation agreements could be signed between the ODC and private service providers to ensure greater transparency and a smoother flow of information, and to ensure that consumer interests are better taken into account. The ODC should also play a role as liaison between consumers and service providers, including private ones, to ensure closer attention to users' complaints and concerns, and also to help the utilities respond to them appropriately. It could, for example, assist public and private agencies with the conduct of user satisfaction polls and surveys, and it could take steps to rally all players in the water sector to participate in public events (for example, a "safe drinking water" day or week) or in training or awareness-raising workshops.

The few associations that exist in the water sector may have a glaring lack of knowledge, capacities and training, but there are a number of water working groups that could play a greater role in the current thinking about water policies in the country. These include such organisations as Eau et développement, Eau dans la Constitution, ITES, CERTE and others whose experts have contributed (as public officials) to previous reforms in the sector. A well-informed civil society can reveal organisational problems in governance and can relay the demands of local stakeholders. This will require a knowledge of the regulatory frameworks for keeping watch, in the public interest, over the institutional chessboard and the financial architecture.

In order to play a role in the water sector, NGOs and other associations do not necessarily have to originate in or be representative of that sector – they can be more generic associations dealing with aspects relating to essential services, which are a very important development factor in Tunisia. At the same time, there are mutual reinforcement effects to be had from involving civil society, recognising that active commitment creates capacities.

Women and young people have a particular role to play in upstream consultation on major decisions in the water sector, as well as in analysing and assessing social, environmental, economic and other impacts. For example, the Centre for Arab Women for Training and Research (CAWTAR), founded in Tunisia in 1993, is a regional NGO working in 22 Arab countries to generate knowledge and thereby provide a factual underpinning for policy dialogue, as well as the planning and reinforcement of technical and institutional capabilities in the region. CAWTAR's objective is to empower women and promote gender equality. It publishes information documents and manuals on the role and rights of women in business and in the decision-making process.[3] In this way, CAWTAR could make an important contribution by informing women about the role they could play in the water sector, whether it relates to making more economical use of water resources or influencing water projects and reforms.

NGOs can do much to encourage a more open and comprehensive approach to water and sanitation services in Tunisia. Efforts to date, in particular those with marginalised rural population groups, need to be pursued, and this will require funding. Educating youth is also crucial for ensuring that future generations have an enlightened understanding of the impact of water problems on health, socioeconomic development and the environment, and that they will be better placed to find effective means for making their concerns known.

Pursuing decentralisation: the role of the sub-national authorities

The decentralisation process currently under way needs to be accompanied by measures to reinforce the capacities of sub-national authorities. In June 2013, the former Minister of Finance, Elyes Fakhfakh, declared that it was time "to think in terms of performance and budgetary management by objectives at the regional level" (Babnet Tunisie, 2013). Tunisia is moving gradually toward decentralisation, in the water sector and elsewhere. The sub-national levels of government, such as the municipalities and the gouvernorats, have had few responsibilities until now, whether in terms of setting sector policies, regulation, or service delivery. Similarly, there is very little information on the role and functions of the regional offices of SONEDE and ONAS.

The reform of the legal framework for the water and sanitation sector is part of a broader context involving amendments to the Constitution and reforms aimed at decentralisation (Box 2.7). The Tunisian government now has an opportunity to devolve greater responsibilities to sub-national players in the water and sanitation sector, and to reconsider water policies as a responsibility to be shared among the different levels of government. In this way, specific territorial features could be taken better into account, and policies could be geared more closely to the needs of the citizens.

The Tunisian gouvernorats and towns have great potential to assist the central government in responding to the current and future challenges with respect to access to water and sanitation. They are more abreast of the circumstances in their own territories, whether in terms of resource availability, climatic conditions or the demands of the local populace. When responsibilities for services lie closer to the people concerned, the resulting decisions are more likely to reflect community viewpoints. Involving local governments in the preparation of water policy is a good way to ensure efficiency and success in implementation. The government would thus do well to involve them more closely in strategic thinking not only about PSP but also about pricing in order to win social acceptance and improve performance. The sub-national authorities could also serve

as local "windows" for the central government and accordingly they should be granted prerogatives as well as the necessary human and financial resources to contribute actively to defining water policies and regulating supply services.

Box 2.7. **Decentralisation in the new Tunisian Constitution: A powerful tool for democracy and local development**

On 28 and 29 May 2012 a conference on the theme "Decentralisation in the new Tunisian Constitution: a powerful tool for democracy and local development" was held in Tunis, sponsored by the Fédération Nationale des Villes Tunisiennes, Cités et Gouvernements Locaux Unis, the Diputación of Barcelona, the Association Internationale des Maires Francophones and the Arab Towns Organisation, with support from the French Ministry of Foreign Affairs, FIIAP-Goberna (Spain), the Mediterranean Commission of United Cities and Local Governments (UCLG) and the Cities Alliance.

The conference brought together 200 representatives of local governments and their grassroots networks, the national government and the National Constituent Assembly of Tunisia, as well as the academic world and donors, to debate issues relating to decentralisation and the balance between decentralisation and deconcentration, the role of local governments in development, and their relations with civil society.

At the end of the session, a number of recommendations were made, including calls for inserting decentralisation into the future constitution, defining the levels of decentralisation, improving the distribution of responsibilities and resources between these different levels and the central government, guaranteeing the administrative and financial autonomy of local governments, and promoting citizen participation. The conference also stressed the importance of planning the jurisdictionalisation of local governments' control.

Representatives of the Tunisian local authorities took the opportunity to issue an appeal to the National Constituent Assembly to open direct dialogue with them on the constitutional process and not to leave them out of the debate during this complex period of transition.

The recommendations from the conference are to a large extent reflected in the new constitution, which provides that "the State shall undertake to support decentralisation and to apply it throughout the territory, within the framework of unity of the State" (article 14). The Constitution also defines the principles of decentralisation and gives an important place to youth, reflecting another demand of the local Tunisian authorities.

Source: Official site of *Cités et Gouvernements Locaux Unis*: www.commed-cglu.org, last consulted in February 2014.

The National Water Board could serve as a co-ordination body between the central government and the sub-national levels, but its role to date has been minimal. Created to assist the Ministry of Agriculture in defining the general principles for developing and using water resources,[4] the Council comprises representatives of several ministries, businesses and national organisations. It was asked to issue opinions on the strategies and objectives of Tunisia's water policy and on studies concerning the outlook to 2050. It has also contributed to the preparation of programmes for rationalising and evaluating water consumption and for dealing with specific situations involving groundwater, with a view to avoiding its overexploitation. It establishes measures for optimising the use of water resources and their sustainability through the recycling of wastewater in the agriculture and non-agriculture sectors and also through desalination. The opening of the Council to representatives of the gouvernorats and the municipalities could be a first step in

promoting dialogue and joint efforts. The Council's two annual meetings could be used to exchange views among players at the different levels of government in order to convey local opinions to the central level and also to transmit national principles and directives to the sub-national level. This could create the opportunities for intermediation needed to strengthen co-operation between public agencies and to enlist all levels of government in a common approach to the water sector.

Other forms of vertical co-ordination are possible. Agreements could be negotiated with the Ministry of Agriculture, the Ministry of Public Health and the Ministry of Equipment, Territorial Planning and Sustainable Development to give the sub-national authorities prerogatives in the areas of quality control (over drinking water and wastewater discharge) and performance monitoring. It will be important however to guarantee the necessary autonomy, appropriate local technical capacities, and adequate funding to allow them to carry out their responsibilities effectively.

Pilot experiments could be conducted in selected cities such as Tunis to test the feasibility and impact of transferring some water responsibilities to the local level. Such decentralisation could also be conducive to better co-ordination of water policies with territorial development policies (urban and rural). An *ex post* evaluation would assess the governance shortcomings and the costs (monetary and non-monetary) resulting from decentralisation, and would also identify good practices to be reproduced before extending the experiment to the rest of the territory. The regionalisation process now under way in Morocco could shed some interesting light on this aspect (Box 2.8).

Box 2.8. **The regionalisation project in Morocco**

Since January 2010, the Advisory Commission on Regionalisation (CCR) has been leading an ambitious project for regionalisation in Morocco. This large-scale project seeks to strengthen local democracy and give the regions greater powers and prerogatives in the areas of territorial planning, education, health, culture and equipment. It calls for the division of the country into 12 regions headed by autonomous regional councils endowed with democratic legitimacy and expanded decision-making powers.

In the water sector, the government will consult the future Regional Council on the preparation of national and regional strategies. The Regional Council will be responsible for conservation and optimal use of water resources, the implementation of small and medium-scale waterworks for flood control and for irrigation, preservation of the environment, protection of the shoreline, lakes and river banks, forests and natural sites, and combating desertification and pollution.

The new regional body will also be represented in the regional public institutions involved in the water sector. Water distribution at this new territorial level will make it possible to cover the entire country and to guarantee water distribution throughout the newly created region, in both rural and urban areas.

Source: Commission consultative de la régionalisation, "Rapport sur la régionalisation avancée", Books I and II, www.regionalisationavancee.ma/pdf/rapport/fr/l1_conceptiongenerale.pdf, accessed 19 March 2014.

Annex 2.A1

Private sector participation in the water sector: Lessons from international experience

Private-public partnerships in the urban water sector: Lessons learned according to the World Bank

According to a World Bank study (2009) of public-private partnerships in the urban water sector of 32 developing and emerging countries, reviewing experience over a period of 15 years under 65 management contracts concessions and leases/affermages for public delivery of water services, private operators have most often improved the operational efficiency and quality of service. The study found that many private operators had succeeded in reducing water losses, especially in West Africa, Brazil, Colombia, Morocco and East Manila. By contrast, in Maputo and in West Manila there was no significant progress and the rate of non-revenue (unbilled) water remained very high (above 50%). The study also revealed that the arrival of a private operator can help to improve the bill recovery rate. Lastly, PPPs in the water sector have often led to a significant improvement in the quality of service, especially by reducing water rationing as in Colombia and West Africa.

On the other hand, some expectations with respect to private financing have gone unfulfilled. The bulk of private investment has been concentrated in a limited number of projects (notably in Chile). In the case of many concessions, the investments to which the operators were committed initially did not materialise, and the initial contractual targets in terms of coverage were not achieved. By contrast, some concessions involving public and private financing (as in Colombia, Guayaquil in Ecuador, Cordoba and Salta in Argentina) as well as some lease/affermage arrangements where the investments were financed by the public agency turned out to be effective and served to increase the rate of household connections (World Bank, 2009)

Experience in Amman and Yarmouk in Jordan

Under the LEMA management contract in Amman, private sector participation was found relatively successful, although it was limited because of divergent interpretations and expectations concerning the terms of the contract. Although the duration of water supply doubled, from 36 hours a week at the beginning of the LEMA contract to an average of 75 hours a week at the end of the contract in 2006, other targets were more difficult to achieve (Pérard). In particular, LEMA did not achieve its objective concerning the payment of bills, in part because it did not have the power to compel public agencies to pay their invoices, which were in arrears to the extent of US 5.7 million (Suleiman et al., 2008). In addition, the investment project that the government had planned to reduce physical leakage in the distribution system was not carried out, making it more difficult for the private entrepreneur to reduce water losses as specified in the contract (Suleiman et al., 2008). There were also differing interpretations of the obligations in the clauses of the contract. For example, the contract stipulated that the private entrepreneur must supply water to every customer for 24 hours a week or more, but the private

operator insisted that the obligation was to achieve this service rate by zone and not by customer (Suleiman et al., 2008). This experience suggests the importance of clarity in the terms of the contract and close supervision to ensure that those terms are respected.

Experience with the management contract in Yarmouk illustrates the importance of establishing realistic contractual clauses. The contract specified that the private partner's remuneration was to include a fixed portion and a performance-based variable portion. The Government of Jordan and the German Development Bank (KfW) were to make a contribution to cover these payments. However, the partnership failed for a number of reasons. First, the government was not able to honour its commitments and it was six months in arrears in paying the fixed portion of the operator's remuneration when the company decided to withdraw. Second, Yarmouk staff went on strike shortly after the contract was signed, to protest the transfer of 25% of their numbers to the Water Authority of Jordan, as called for in the contract. Third, an independent auditor who reviewed the contract found that the performance targets were not realistic. In fact, the performance criteria included indicators relating to improved energy efficiency, operating cash surplus, decreases in non-revenue water, and continuity of water sales. These objectives were very ambitious for a newly created enterprise which at the outset had one of the highest rates of non-revenue water in the country and was saddled with heavy financial constraints and a vast and discontinuous distribution zone. In the end, the contract was cancelled in 2012, and an out-of-court settlement was still being negotiated in October 2013.

This section is based on OECD (2014b).

Experience in Tripoli, Lebanon

This experience is confined to one contract for water service and management in the urban commune of Tripoli (which with a population of 400 000 represents 10% of the Lebanese population). The project included two components: the construction of infrastructure for an amount of EUR 11 million (expansion of the water treatment plant at Bahsass, extension of the secondary and tertiary network of Tripoli) and institutional support targeting performance improvement of the Tripoli Water Office (replaced later by the Regional Establishment of Water and Sanitation of North Lebanon). The management contract, at EUR 4.6 million over four years, was awarded to the Ondeo-Liban company. It started in 2003 and was completed in 2007, with renewal.

The objectives of the management contract were to improve the technical, commercial and financial performance, to establish information and management systems, and to improve communication. The evaluation of this experience based on the predefined performance indicators is mixed and has been the subject of much debate. Among the targets achieved through the implementation of this contract were the continuous supply of high-quality drinking water, the recruitment and training of staff, and the installation and running of management software (customer services, computer-assisted maintenance management, geographic information system). Other indicators, however, recorded progress without reaching the anticipated targets. For example, the technical performance of the water system went from 35% to 55% against a target of 75%. For the most part, the financial targets were not achieved: the billing rate went from 34% to 55% against a target of 75%, and the claims recovery rate went from 29.7% to 33.8% against a target of 90%.

This section is based on GWPMed/OECD (2011).

Experience with BOT in the water and sanitation sector in Mexico

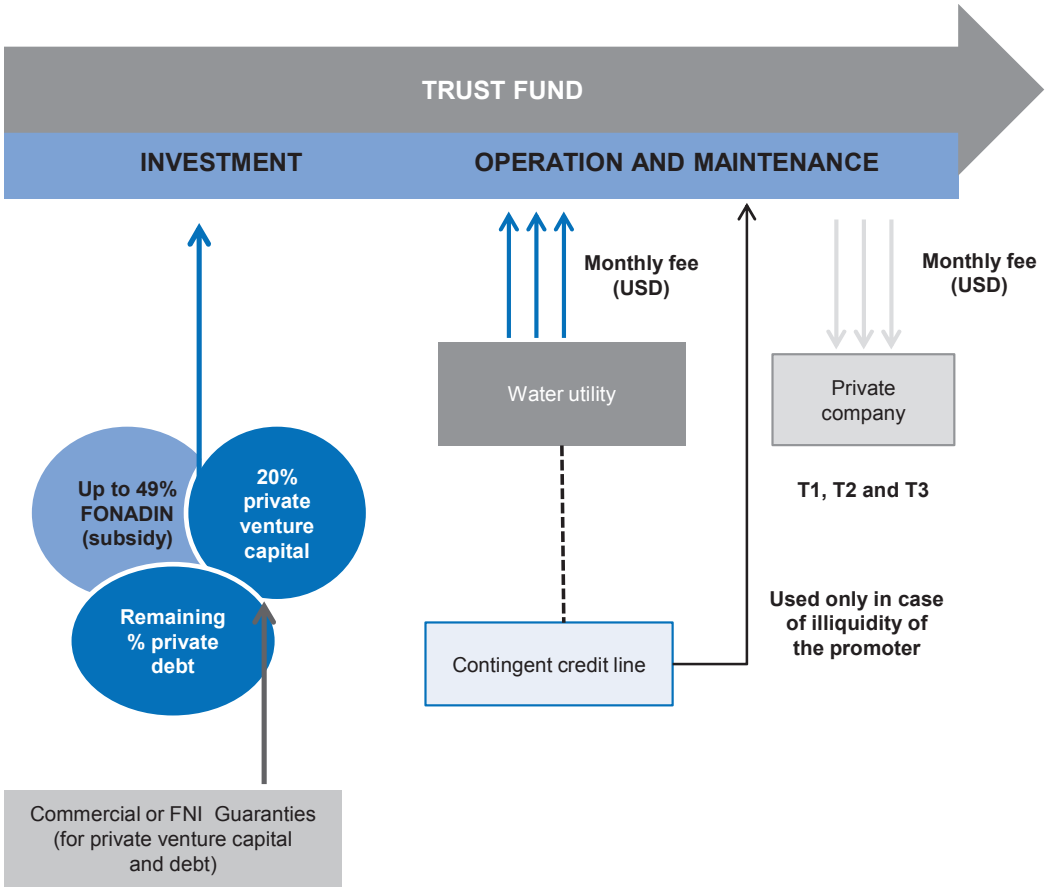
Since 1997 Mexico has seen rapid growth in BOT (build-operate-transfer) contracts for the development and management of wastewater treatment plants. Between 1997 and April 2012, there were 38 BOT projects for wastewater treatment plants, aqueducts and desalination plants in the process of development. According to CONAGUA (the National Water Commission of Mexico), over the years 2007-2011 some 17 projects were launched for treatment plants offering capacities of more than 500 l/s, through PROMAGUA, representing a private investment of around EUR 250 million, or two-thirds of total investment, with the result that the wastewater collection rate rose from 36.1% to 45.7%. In April 2012, four new wastewater treatment plants were under construction, bringing the private sector contribution to around EUR 400 million, or half of total investment. Another 11 projects were being readied, potentially entailing further private investment in the order of EUR 100 million.

The combination of public and private financing has thus been crucial for ensuring the success of BOT contracts. It has been possible to develop projects so quickly in Mexico because the government has instituted a specific financing mechanism, PROMAGUA, under which public funds can be used as leverage for private investment. This mechanism combines subsidies from the central government with a local or state guarantee system which ensures the investor that the public corporation will honour its payment commitments. In the course of implementing this new financial arrangement, the National Infrastructure Fund (FMI) was created in 2008, for use in financing infrastructure projects.

Mexican experience also reveals the limits of the BOT system. While it has alleviated the shortage of financing for infrastructure investments, the signature of BOT projects has not served to improve the efficiency of water suppliers, and service costs have risen. It is in effect up to the municipalities and the public water utilities to ensure that the BOT concept is consistent with the needs and capacity of the network when deciding to undertake a new installation, and to make the improvements necessary for the delivery of services under the BOT framework. In Puerto Vallarta, for example, a BOT contract signed in 1992 for a wastewater treatment plant had to be taken over by the municipality after the financial crisis struck. Feedback from the experience showed that some of the project's economic and financial assumptions were unrealistic and that the municipal authorities of the time had overestimated the target population and the capacity of the treatment facilities.

This section is based on OECD (2012c).

Figure 2.A1.1. **Financial structure of a PROMAGUA project**



Source: OCDE (2012), "Framework Conditions for Private Sector Participation in Water Infrastructure in Mexico", www.oecd.org/daf/inv/investmentfordevelopment/checklist%20assessment%20of%20Mexico.pdf.

Annex 2.A2

Value for money

The Recommendation of the Council on Principles for Public Governance of Public-Private Partnerships (OECD, 2012c) stresses the importance of grounding the selection of PPPs in value for money. "Value for money" is defined as the optimal combination of quantity, quality, features and price (i.e. cost), expected (sometimes but not always calculated) over the whole of the project's lifetime, which will allow the authorities to meet the needs of the citizens (Burger and Hawkesworth, 2011). It is thus a relative measure or concept. The starting point for the calculation is the public-sector comparator. This compares the net present cost of bids for the PPP project against the most efficient form of delivery according to a reference project involving conventional procurement. The comparator takes into account both the risks that can be transferred to the private partner and those that will remain with the public authorities. In addition to the quantitative aspects generally covered by public-sector comparators, value for money entails qualitative aspects that normally leave some discretion to the public authority concerned. Box 2.A2.1 presents methods that can be used to assess value for money in PPP projects. If value for money is difficult to assess at the outset of the project, this is because it depends ultimately on a combination of interdependent factors such as risk transfer, performance assessment and the corresponding incentives, the management competence of the private partner, and the advantages of the PPP project for final users.

Box 2.A2.1. **Assessing value for money in proposed PPP projects**

Prior to undertaking a public-private partnership, a government should explore whether or not a PPP will deliver better value for money compared to traditional public procurement. Generally speaking, four methods may be used to assess the relative value for money of the different delivery models:

- a complete cost-benefit analysis of all alternative provision methods available to both the government and the private sector – this method is the most complex among the four presented here;
- calculation of a public-sector comparator before the bidding process to assess whether or not public-private partnerships in general offer better value for money (e.g. South Africa);
- calculation of a public-sector comparator after the bidding process to assess whether or not a particular public-private partnership bid offers better value for money; and
- the use of a competitive bidding process alone without a comparison between public and private provision methods (e.g. France).

Box 2.A2.1. **Assessing value for money in proposed PPP projects** (*cont.*)

In Australia, Partnerships Victoria uses a public-sector comparator to compare the net present cost of bids for the public-private partnership project against the most efficient form of delivery according to the output specification (a so-called reference project). The comparator takes into account the risks that are transferable to a probable private party, and those risks that will be retained by the government. Thus, the public-sector comparator serves as a hypothetical risk-adjusted cost of public delivery of the output specification of a Partnerships Victoria project. The methodology for preparing the public-sector comparator is published by Partnerships Victoria.

Some have contested the robustness of the public-sector comparator, claiming that it is constantly manipulated in favour of public-private partnerships. The United Kingdom, for example, has replaced the public-sector comparator to incorporate quantitative and qualitative factors in a value-for-money assessment. Quantitative factors include a reference project, and value-for-money and affordability benchmarks. Qualitative factors include project visibility, desirability and achievability.

Source: OECD (2010), *Dedicated Public-Private Partnership Units: A Survey of Institutional and Governance Structure*, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264064843-en.

Notes

1. Contingent liabilities are those that may materialise depending on circumstances, i.e. in the event of a particular and uncertain circumstance. A contingent liability is recorded in the accounts only if the circumstance is likely and if the amount of the liability can be stated in figures. Contingent liabilities will be different for each type of enterprise and profession, and management establishes provisions to cover them by setting aside funds to constitute reserves. Examples of such liabilities include the actions of personnel, loan guarantees, defaulted contracts, judicial proceedings under way, indemnity to third parties, unfulfilled orders, unresolved disputes, etc. According to corporate law, contingent liabilities may be explained in a footnote to the budget.
2. Law of 1999 concerning the *groupements de développement agricole.*
3. Official website of the Centre for Arab Women for Training and Research (CAWTAR), www.cawtar.org, accessed in December.
4. Decree 2010-407 of 9 March 2010 creating a National Water Council and establishing its mandate, its composition and its operating procedures.

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Chapter 3

Action plan to improve governance of the water sector in Tunisia

Water policy reform in Tunisia could benefit from a comparative analysis that would draw lessons from international experience with similar reforms in other countries. This chapter proposes an action plan based on a diagnostic assessment and on the recommendations put forward in this report, and offers the authorities and the various stakeholders, including development partners, a series of concrete measures for successful water reform in Tunisia. These actions are part of the framework for reform and other initiatives underway in the water sector in Tunisia, and are based on examples drawn from international experience.

The work carried out under the OECD project entitled "*Making Reform Happen*" identified a number of lessons concerning factors for the success of reforms (OECD, 2010a). They offer a useful starting point for considering governance reforms in the water sector in Tunisia:

- A clear political mandate for carrying out the reforms: the current situation of post-revolution reconstruction offers an unprecedented opportunity for considering the major reforms the country wishes to implement. The question of private sector participation (PSP) is also receiving wider attention in the country, as exemplified by development of the law on public-private partnerships (PPP), and the high-level support it has enjoyed. In this context, the water sector authorities need to consider the governance framework for water and the role that PSP could play in developing the sector. Otherwise, there is a risk that strategic decisions will be imposed on them from on high.
- A sound, factually rooted analysis as the basis for taking policy decisions and promoting reform: this report offers a systematic assessment of the governance obstacles to PSP in the water services sector. Where relevant, the report identifies the information gaps that could pose an obstacle to policy decisions.
- An appropriate institutional structure, capable of supporting policy reforms until they become operational: the analysis in this report shows that Tunisia has for many years had a solid institutional organisation in the water sector, and that it has performed remarkably well. This governance model, however, reveals some significant limitations. A new organisation is needed, for which this report offers some pointers.
- Strong political commitment: despite the transition to democracy, the lack of government stability has made it impossible to prepare a strategic vision for development of the water sector, and at the same time heavy social pressures have led to a management approach that is reactive rather than forward-looking. The situation has generated much institutional inertia in the water sector, and important decisions have been put on hold. Once the conditions become more favourable, the work under way and the recommendations in this report could allow decisions to be taken promptly.
- Effective communication to persuade voters and stakeholders of the need for reforms. This report underlines the importance of transparency and stakeholders' engagement if the reform is to be successful, and if there is eventually to be a sustainable improvement in water services. The report offers a solid basis for the authorities to consider how best to enhance stakeholders' engagement.
- Time and tenacity: successful structural reforms often take a long time to prepare, adopt and implement, and they sometimes take several tries. Yet if the pursuit of reforms can be a laborious process, their benefits may be compromised if they are not seen through to completion. In such cases, the political capital and the political energy invested will have been spent for nothing.

Area of recommendations 1: Identify the form of PSP best suited to the objective

Recommendations	Practical steps	Timing (Short,medium orlong term)	Reformsand initiativesunder wayin supportofthe Recommendation	Stakeholders	International experience
Considerformsof PSPin the watersector in light ofpast experience,thelocal and internationalprivate sector appetite,andthe improvementof framework conditions	–independent assessment of PSPexperience inTunisiatodate	Shortterm	Conditionalon passing the PPPlaw(see below), strengtheningtheregulatory frameworkandthesector's financialsustainability,and publicacceptance of the PSP solution. AFFIprojectforgrouping sanitationsubcontracts	Researchersand academics Oversightministries, operators,local and internationalprivate sector Operators,donors, privatesector	Evaluationofprivatisationresultsin Jordan byacommitteeof experts Performancecontracts ofthekind used in Senegal(*affermage*)or in thecontextof managementcontracts
	–marketsurveytodetermine theprivate sectorappetite for PSPin Tunisia	Shortterm			
	–consider in particular howPSPcontractscan helpoperators improvethenetworks' technicaland commercialefficiency,service qualityandresponsivenessto user demands,throughperformancecontracts	Shortterm			
Considerinvolving small privateoperatorsto support theGDAs in rural areas	–identifycases wheresuch involvementis possible	Shortterm–first stage	ThecurrentGDA studies shouldserve asthebasisfor identifyingpilotprojects	RuralEngineering (MinistryofAgriculture), GDAs	Morocco'sexperiencein creating and coachingmicro-enterprises
	–pilotoneortwo projects	Mediumterm–secondstage			
	–accompanyPSPbyeffortsto reinforce the technical,administrativeandcommercial capacitiesofsmall operators	Mediumterm–parallelto the secondstage			
Considerthe useofBOT-typePSParrangements for desalinationorwastewater treatmentplants	DevelopapilotBOT project foradesalination plant,aconventional watertreatmentplantor awastewatertreatmentplant,basedon a feasibilitystudy	Mediumterm	Basedon determinationof thepipelineofoperators' projects,such asthe investmentplanofSONEDE	Operators,development partners	Pilotproject,New Cairotreatment plant in Egypt,supportedbytheInternational FinanceCorporation(IFC)

Area of recommendations 2: Ensure the financial viability and fiscal sustainability of PSP in the water sector

Recommendations	Practical steps	Timing (Short,medium orlong term)	Reformsand initiatives underwayin supportofthe Recommendation	Stakeholders	International experience
Recommendation1: Strengthenthe financial anddecision-makingautonomy of wateroperators					
Givethe wateroperatorsmore autonomy bygranting them greater flexibilityin managingtheirinvestments andtheir currentoperations	–substituteacultureofinternal control and auditforthecomplexstructure ofexternal controlsnowin place	Shortterm –medium term	SeveralTunisian ministries havealreadytaken initiativesto introduce results-basedbudgeting	MinistryofEconomy andFinance, operators,oversight ministry	
	–adoptan approachto financial management basedonobjectivesandnotoninputs	Shortterm–medium term			
Ensurethattariffscovertheircosts	–assesstheeconomic andsocial impactsof thecurrentpriceschedule andcross-subsidiesand conductlocalcapacity-to-pay surveys(asinputto strategicplanning, see below)	Shortterm	Currenteffortsofoperators andtheirdevelopment partnersto identifyfinancial sustainabilityleaders, includingtheSONEDE pricingstudy	Operators,oversight ministries, academics,political leadershipat the highestlevel	Mexicantariff standard establishedby CONAGUA (NationalWater Commission)
	–developa pricing methodology that clarifies theprocessand thecriteriaforupdating tariffs	Shortterm			
	–makethis methodologypublic andaccessible tousers	Shortterm -medium term			
Accompanyprice-settingwith cost reductionmeasures	–ensurebettercost control andencourage efficiencygainstoimproveoperators' financialbalance and limittariff increases				
	–ensure more effective billrecovery from individuals,governmentand privateentities				

Area of recommendations 2: Ensure the financial viability and fiscal sustainability of PSP in the water sector (*cont.*)

Recommendations	Practical steps	Timing (Short,medium orlong term)	Reformsand initiatives underwayin supportofthe Recommendation	Stakeholders	International experience
Recommendation2: Ensure the fiscal affordability of PSP					
Recordgovernmentsubsidiestothe watersector transparently inthebudget andaccounts	Specifythe detaileddistributionofsubsidiesto thewatersector, andincludetheexpected outcomes	Shortterm–medium term		MinistryofEconomy andFinance	OECD(2002)
Introduceastrategic financial planning toolspecifictothewatersector	Thistool can beusedtogenerate athree-stage iterativeprocess: 1.Preparethebenchmarkscenario, includinga thoroughanalysis ofthecurrentsituation,a definitionofobjectivesforthesector,andthe stepsneededto achievethem. 2.Evaluate the financialfeasibilityofthe benchmarkscenario. 3.Conducta dialogueonthealternative scenariostoachieveconsensus onthemeans inlight of realisticobjectives.	Mediumterm	Thistoolshouldbe used to supportheproposedsector review,a long-term sector strategy,anda returnto five-yearplanning and programmecontracts	Oversightministries andoperators	Seeinparticularthe applicationof this tool in Bulgaria,Egyptand Turkey(OECD,2011)
Specifyin thebudget all contingent liabilitiesarising from government commitmentsin thewatersectorin order tominimisefiscalrisks	–Budget documentationshouldinclude detailedreporting on the contingent liabilities arisingfrom sovereign guaranteesgivenfor operators'loans –once the PPPsare in place, identify, quantify andreportcontingentliabilitiesarisingfrom sovereignguaranteesgrantedto private partners,aswell as guaranteesfornon-paymentorrevenue guarantees	Mediumterm Mediumterm -long term		MinistryofEconomy andFinance	InChile,anannual report oncontingent liabilitiesis submittedto parliament togetherwith thebudget (Burgerand Hawkesworth,2011)

Area of recommendations 2: Ensure the financial viability and fiscal sustainability of PSP in the water sector (*cont.*)

Recommendations	Practical steps	Timing (Short,medium orlong term)	Reformsand initiatives underwayin supportof theRecommendation	Stakeholders	International experience
Recommendation3:develop an institutionalstructureconduciveto sound managementof PSP					
Strengthenthelegislative frameworkfor PSPand PPPin the water sector, andhavemechanisms in placefor reconciliation with existinglaws	–ratify and promulgate the PPPlawpromptly	Underway	ThePPPlawisawaiting ratificationby Parliament.	– PrimeMinister'sOffice, Parliament,	SeeLaw 2008-735off 28July 2008 on partnershipcontracts in France
	–take stockofexistinglegislationthat couldbe affected by thefuture PPPlaw(sector laws, lawon concessions, andinvestmentcode)	Shortterm (inparallel with parliamentaryadoptionof thelaw)	Strongpolitical willto moveforward with PPP (*cf.*–statement bythe	– PrimeMinister'sOffice, oversightministries	
	–if necessary,drafttheamendmentsneededtoalignthe existinglegislativeandavoidlegal uncertainty	Mediumterm (process parallel orsubsequent to adoption of thelaw)	MinisterofFinanceon 31 January2014)	– PrimeMinister'sOffice, oversightministries	
Strengthengovernment capabilitiesintheareaof PSP,andPPPinparticular	–organise trainingsessionsandseminarsforofficialsof thecentralgovernment and oversightministries who will beinvolved in PSPactivities (e.g., training on risk sharing)	Shortterm	OECD/AfDBprojectto strengthengovernment PPPcapacitiesin co-operationwith thePrime Minister'sOffice	– PrimeMinister'sOffice, MinistryofEconomyand Finance,oversight ministries	
	–institute the PPPunit called for in the PPPlawand endowit withthenecessarytechnical, financial andlegal expertise		Relyon existing PPPskills withingovernment,in particularthe InterministerialAdvisory Commissionandthe ConcessionsUnit	– PrimeMinister'sOffice, MinistryofEconomyand Finance,oversight ministries	ExperienceofEgyptin implementinga PPPunit beforetherevolution, experienceofSouth Africa
	–once it isin place, the PPPunit should be backed by specialisedPPPskillsor even PPPunitsin the responsiblelineministries	Shortterm –medium term			
	–clarify theroleandresponsibilitiesoftheexisting PPP unitsandensureproperco-ordinationbetweenthe differentpublic institutions,in particularbetween the PrimeMinister'sOfficeand theMinistry ofEconomy and Finance			– PrimeMinister'sOffice, MinistryofEconomyand Finance	
Maintaina close link betweenthebudget and planningprocesses	Onthe basisof the PPPlawand itsapplication decrees, establishtheprocedurefortenderingPPP contracts and introducemethodologiesforassessing valueformoney	Shortterm – mediumterm	Ensurelinkagebetween projectsand the sector-specificandoverall MTEF nowbeingdeveloped	PrimeMinister'sOffice, MinistryofEconomyand Finance	UnitedKingdom: successfulintegrationof investmentprojects and thebudgetaryprocess withthemedium-term expenditureframework

Area of recommendations 2: Ensure the financial viability and fiscal sustainability of PSP in the water sector (*cont.*)

Recommendations	Practical steps	Timing (Short,medium or longterm)	Reformsand initiatives underwayin supportof theRecommendation	Stakeholders	International experience
Recommendation4:Valuefor money					
Establishalist ofinvestmentprojectsin thewaterandsanitationsector, showingtheorderof priorityby government	–revive thefive-yearplansasthebasisforproject planning –makesystematicuseofcost-benefitanalysisfor selectingand prioritising projects –draw upashortlistof projects	Shortterm/medium term Mediumterm	Useexisting internal studiessuchas the SONEDEnational investmentprogramme ofJanuary2014 developedwithWorld Banksupport	Operators,oversight ministries,Secretariat fordevelopmentand internationalco-operation,Ministryof Economyand Finance,Prime Minister'sOffice	The" *Investirpourla France* " investmentprogramme containsalistof investment projectsvalidatedatthe highestpolitical level andby theprimaryplayersof the sectorsconcerned
Defineequitablerulesof the gamefor selectingbetweenapublic optionanda PSPoption	–defineamethodologyforcalculatingvaluefor money,for exampleusingdata for areference projecttocomparecostsbetweenaPPP anda traditionalprocurementcontract –developandimplementatool for assessingthereal operatingandmaintenancecostsof projectsin the watersector (beyond the construction phase)	Shortterm –medium term Shortterm –medium term	Considerationis being givento the adoption of analyticalaccounting as partofthepublic financialmanagement reformsnowunderway intheMinistry of EconomyandFinance	–PrimeMinister's Office,Ministryof Economyand Finance –MinistryofEconomy andFinance,Prime Minister'sOffice, wateroperators, oversightministries	Manycountrieshaveadopted value-for-moneycalculation mechanismsthatTunisiacould use(SouthAfrica,France, UnitedKingdom, for example)
Establishacompetentteam tomonitor projectsand managethe engagement withtheprivatepartnerduring the operationalphaseof aPSPproject	–draftinstructionsandmethodological guidesfor administrativestaff responsible forproject monitoring –assign an expert from the PPPunit or hire an outsideexpertto managecomplexprojects	Mediumterm		MinistryofEconomy andFinance,Prime Minister'sOffice, oversightministries	Seethecodes andguides developedin the United Kingdom(Government ofthe UnitedKingdom, 2013;2014) InSouth Africa,aprojecthead appointedbythe PPPunit supervisesproject management

Area of recommendations 3: Establish the conditions for greater transparency and effective stakeholders' engagement

Recommendations	Practical steps	Timing (Short,medium orlong term)	Reformsand initiatives underwayin supportof theRecommendation	Stakeholders	International experience
Recommendation1:improveaccessto databaseinformation on water and sanitation services					
Scaleupeffortsto developperformance indicatorsandsee thattheresultsare published	–expand therangeofexisting performanceindicatorsto cover commercialperformanceonthequalityofwaterandsanitation services.They should include consumption levels,uses,water quality,wastewatertreatmentratios,trendsin service performance,pricesettingandtheresultsofhousehold satisfactionsurveys	Shortterm		Operators,National Water Board	Exampleofperformance indicatorsdevelopedby OFWATin theUnited Kingdom
	–disaggregate datatotheregional level inordertohaveamore accurateidea of thewater-related costs andrisksinindividual municipalitiesand *gouvernorat*s	Shortterm		Operators	
	–increase thefrequencyandscope ofsatisfaction surveys conductedbytheUGQof SONEDE,startingwiththe25 districtsthatdo notyethave ISO9001:2008certification.	Mediumterm	Operators'viewson the performanceindicators (initiativesfrom the variousworkinggroups)	SONEDE/Quality ManagementUnit (UGQ), NationalInstituteof StandardisationandIndustrial Property,Tunisian Consumer DefenceOrganisation(ODC)	
	–increase thefrequencyandscope oftheONAS quality managementsystem tocoverall districts,onthebasisof lessonslearnedfrom thepilotexperimentin Ariana.	Mediumterm	Usethestudyprepared inco-operationwith SONEDEin 2006 as thebasisfor further work	NationalSanitation Office (ONAS),National Instituteof StandardisationandIndustrial Property,ODC	
	–publish the resultsregularlyat areadily accessible and instructivewebsiteanddisseminatethe accountingand financialoutcomeswidely.	Shortterm		Operators,National Water Board,ODC	
	–consider retaininganindependentthird-partyto ensurethe qualityand credibilityof information	Longterm		Oversightministries,Prime Minister'sOffice, Ministryof EconomyandFinance	Variousmodels exist,such astheFrenchWater Observatoryorthewater economyregulatorsin EnglandandPortugal

Area of recommendations 3: Establish the conditions for greater transparency and effective stakeholders' engagement (*cont.*)

Recommendations	Practical steps	Timing (short,medium or longterm)	Reformsandinitiatives underwayin supportof theRecommendation	Stakeholders	Internationalexperience
Updateand completethe existingwaterinformation systemandcheckits consistencywiththe variousinformation producers	–conduct a study toassessthequalityofthe datacollectionsystemsforwater servicesthroughoutthecountry,andmakerecommendations	Shortterm	Buildontheexisting SINEAUdatabase SONEDE'scallfor tendersto developa geographicinformation	Operators, GDA, private providers	EMWIS(Euro-Mediterranean informationsystem on know-howinthewater sector);WISE (Water InformationSystem for Europe)
	–develop mechanisms foreffectiveco-ordinationamongthevariousbodies responsible(SONEDE,ONAS, GDA, privateproviders,etc.)in orderto harmonisetheinformationproducedand ensurethatit is comparable and mutuallyagreed	Shortterm	systemisanopportunity tocomplement the informationonthe drinkingwatersystem		
	–institute aregularmonitoring system forupdating theinformation	Mediumterm		Operators	
	–speed theimplementationof acommoncommercial informationsystem betweenSONEDEand ONAS	Mediumterm		Operators	
	–harmonise theindicators requiredbyvariousdonorsformonitoring theprojects theyfinance	Mediumterm		Donors	
Recommendation2:Makecommunication astrategicand cross-cutting activityon the Tunisian government agenda					
Strengthenthecapacities ofthe communication divisionsof SONEDE andONAS	–create customerservicedepartmentswherethese donotexist,andstrengthen thecentral communicationdivisions(moreresourcesandcapacities)while maintainingcloserelationswithregional offices	Shortterm			
	–reinforce relationsbetweenthecommunication divisions andthe operating divisions,thelegal divisions(e.g.forhandlingclaims),thepublic relations units,etc.	Shortterm		Operators, donors, communication advisory bodies	TheEuropeanUnion's programmeforintegrated watermanagementin the southernMediterranean (SWIM)promotescross-sectordialogue
	–develop a communicationsplanand amediastrategy,withproceduresand instructionsfordealingswith thepress,social networking,external relations (publicevents, openhouses,educational activitiesforyouth, etc.)	Shortterm			
	–appoint spokespersonsto avoidthefragmentationof communicationwithinthe divisionsandbetweenthecentral andregional levels	Shortterm			
	–institute amechanism forco-ordinationbetweenSONEDE andONAS forsharinggoodpractices, carryingoutjointcommunication activities(brochures,magazines,etc.)andstrengtheningthecapacities of agents	Mediumterm			

Area of recommendations 3: Establish the conditions for greater transparency and effective stakeholders' engagement (*cont.*)

Recommendations	Practical steps	Timing (Short,medium or longterm)	Reformsandinitiativesunder wayinsupportofthe Recommendation	Stakeholders	International experience
	Makethewatercommunicationsstrategiesofthevariousministriesand agenciesmoreconsistentandcoherent	Shortterm	-developinter-ministerial, interdisciplinary,cross-cuttingandunifying messagesto promote efficientwater use(control ofdemand,improvementof wastewatertreatment, reducedwaterlosses,etc.) -takeadvantageof workon the2050WaterSector Strategytomake communicationastrategic theme	Oversightministry	
Definethetarget populationgroupsfor communication purposes	–inventorythestakeholdersatthevariouslevels ofgovernmentandinthe privateand co-operativesector,andidentifytheirexpectations	Shortterm			
	–establishimmediateplansforeachtargetaudienceanddevelop arrangementsfor dialogueadaptedtotheirneedsand theirmodesof communication	Mediumterm			
Recommendation3: Activate andstrengthenthe existingparticipatory andconsultative forums					
Strengthenedthe GDAsasaforum for participationand sharingof experience	Organisethesharingofexperienceand optimiseknowledgetransfers betweenGDAs throughannual meetings orestablishment ofanational associationor federation	Mediumterm	Makeuseof existing programmesaspartof the strategyforputtingtheGDAs onapermanentfooting	GDAs,Rural Engineering,donors	Morocco(rural collectivewater supplyprogramme–PAGER);Mexico (nationalirrigation users'association, ANUR)

Area of recommendations 3: Establish the conditions for greater transparency and effective stakeholders' engagement (*cont.*)

Recommendations	Practical steps	Timing (Short,medium orlong term)	Reformsand initiatives underwayin supportof theRecommendation	Stakeholders	International experience
Strengthentheroleof NGOs	–strengthentherole of the majorassociations,in particularODC, as interfacesbetweenconsumersandserviceproviders	Shortterm	Buildon the existing agreementbetween SONEDEandODC	ODC,operators	–France(Union fédéraledes consommateurs– UFC-QueChoisir)
	–supporttheexpertworkinggroupson waterso astoreinforcetheirinputto waterpoliciesandthedevelopmentofastrategicvision fortheTunisian authorities	Longterm		Operators,ODC, NGOs,GDAs	–trainingand educationcentres, ArabWater Academy,Women forWater Partnership,
Encourageparticipation byvulnerablegroups (youngpeople, women)	Involvetraining centres (schools,universities, specialised NGOs such as the CentreforArabWomen for Training andResearch– CAWTAR,etc.)more systematicallyinengagingwith targetgroups (youngpeople,women, etc.), makingthem awareof efficientwateruseissues, and boostingtheir capacitiestocontributetowater-related decision-making	Mediumterm		Trainingcentres, ministries,operators, schools,universities	Egypt(National CouncilofWomen)
Recommendation4:Takebetter accountofspecificterritorialcircumstances					
Improvetherepresentation ofthe *gouvernorat* sandthe municipalitieson the NationalWaterBoard	–conductpilotprojectsin selectedcities totest the transfer ofcertainwater responsibilitiesto the locallevel	Shortterm	Takeasabasis thevarious articleson local governancein thenew Constitution	NationalWaterBoard	Morocco (programmeof concertedmunicipal strategies)
	–conductan *expost* evaluationofthepilotprojectsandidentify good	Mediumterm			
	-based on the pilotprojects,generalise thedevolutionofresponsibilities throughoutthecountry	Longterm			
Strengthenco-operation amongpublic agencies	Givemoreweightto theregional offices ofSONEDE andONAS forrelaying local communities'needsto the decision-making centres	Mediumterm		SONEDE,ONAS	

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Annex A

List of stakeholders consulted during the policy dialogue

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Glossary

Under a **subcontracting arrangement – typically a service contract –** the private party performs specific, time-bound tasks, such as supplying inputs, taking care of planning studies, computing and payroll services or public relations, construction, maintaining assets, installing meters or billing customers, usually in exchange for a fixed fee. In this situation, the private sector bears very little risk and there is very little uncertainty around the expected outputs.

Affermage only differs from a lease in terms of revenue for the private sector. In both cases, the private operator collects the tariffs and pays, on top of the operation and maintenance costs, a fee to the public sector. But while this fee is fixed in the first case, it is proportional to the volume of water sold in the second case. An affermage contract is currently underway for the provision of urban water in Senegal. A lease was signed in Yerevan, Armenia, in 2006.

A **lease** is a written agreement under which a property owner allows a tenant to use the property for a specified period of time and a specified rent. The private sector operator is responsible for providing the service at its own risk, including operating and maintaining the infrastructure for a given period of time. The operator is not responsible, however, for financing investment such as the replacement of major assets or expansion of the network. If payments from users cover more than the operator's remuneration, the operator is generally supposed to return the difference to the public authorities in order to cover the cost of the investments under the latter's responsibility.

BOT (build-operate-transfer) contracts correspond to greenfield concessions. These contracts involve take or pay provisions, i.e. revenue guarantees, that subject governments to contingent liabilities. On expiration of a BOT, the assets are returned to the public sector. **BOOs (build-own-operate)** are similar to BOTs except that they do not involve a transfer of the assets to the public sector after a pre-determined period of time. The private operator thus remains responsible for carrying out all the investment required to meet its service obligations. Under **BOOT (build-own-operate-transfer)** schemes, the private sector obtains the capital needed for construction, builds and operates the infrastructure for an agreed period of time (anywhere from 15-30 years) and then transfers ownership back to the relevant government. **BOTT (build-operate-train-transfer)** is another variation of BOT whereby the private operator commits to train the public sector to allow a smoother transfer. Other permutations of the activities for which the private sector takes responsibilities exist and typically involve design, build, operate, maintain and finance.

With a **public limited company**, a commercial company is formed but owned by local, provincial and national government. The Dutch Water Supply Act spread the methodology in the water sector of the Netherlands. In **water co-operatives**, customers are members of board, but they are uncommon in large cities. They constitute a common form of rural water provision in Chile.

Under a **concession**, the private operator is also responsible for asset replacement and network expansion. The level of risk transferred to the private sector is therefore higher and compounded by the nature of retribution of the operator, mainly based on user charges. Concession was the predominant contractual arrangements adopted in Latin America in the 1990's.

Under a **management contract**, a private firm is appointed by the government to provide managerial services, often for a fixed fee. The contract typically requires the private party to manage a utility and provide services to the public for a given period of time. The remuneration of the private operator may be fixed at the outset, in which case the commercial risks of the operation are borne entirely by the public sector, or it may be linked to the performance of the utility, in which case the private operator bears some commercial risk. More and more countries resort to this type of contractual arrangement to facilitate transfer of know-how and to develop greater understanding of the implications of involving the private sector as part of a gradual approach to the private sector participation.

Public-private partnerships (PPPs) are long-term contractual arrangements between the government and a private partner whereby the private partner delivers and funds public services using a capital asset, sharing the associated risks. In a PPP contract, the government specifies the quality and quantity of the service it requires from the private partner. The private partner may be tasked with the design, construction, financing, operation and/or management of a capital asset required for service delivery as well as the delivery of a service to the government, or to the public, using that asset. The private partner will receive either a stream of payments from the government for services provided or at least made available, user charges levied directly on the end users, or a combination of the two.

Private sector participation (PSP) is broadly defined to include non-financial forms that involve managing infrastructure services. However, to differentiate from traditional public procurement, participation is defined as involving some transfer of risk to the private partner. A wide range of risk-sharing arrangements is available to policy makers and forms a quasi-continuum between cases where the public sector assumes most of the risk to cases where there is significant risk transfer to the private sector.

Stakeholders are defined as persons or groups who are directly or indirectly affected by water policy, as well as those who may have interests in it and/or have the ability to influence its outcome (are in their sphere of influence), either positively or negatively – and want to engage in the decision-making process. They may include civil society organisations and groups with special interests including locally affected communities or individuals and their formal and informal representatives, national or local government authorities, elected representatives, regulators, agencies, end users, the academic community, utilities and other businesses and non-state actors/non-governmental organisations.

Value for money is what government judges to be an optimal combination of quantity, quality, features and price (i.e. cost), calculated over the whole of a project's life.

With **divestiture**, ownership of the existing assets and responsibility for future upkeep and expansion are transferred to the private sector. Very few countries have adopted complete divestiture with the notable exceptions of Chile and the United Kingdom.

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