## LES SYNTHÈSES TECHNIQUES DE L'OFFICE INTERNATIONAL DE L'EAU

Performance Contracts between public authority and public providers as a tool to improve the performance of water utilities

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mars 2014



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# Performance Contracts between public authority and public providers as a tool to improve the performance of water utilities

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#### **ABSTRACT**

The performance contract, between a public authority and a public provider, seems to be a voluntary management tool. The aims of this tool are to create and monitor performance of water and sewage services. Currently, we can find this tool in both developing and industrialized countries. With indicators related to objectives, the public operator is quickly and easily followed by the public authority. Consequently, how to establish indicators is important. It shows the main performance issues for the service and precisely what the authority wants to follow. This allows accounting for performance, monitoring and controlling. This tool seems to be a source of legitimacy and greater transparency. Especially, the operator can justify its performance but also because the authority may then communicate to users. However the process is complex. The success of the tool depends on significant external and internal factors. Two cases will be studied to identify common issues or success factors of these tools applied to widely contrasting situations.

**Key Words:** Performance contract, public service, public authority, public provider, management tool, indicators, performance monitoring, legitimacy.

#### RESUME

Le contrat d'objectifs entre autorité et exploitant publics apparait comme un type d'outil volontaire permettant d'établir et de suivre les performances du service d'eau et d'assainissement. Cette pratique récente pour le management des services d'eau, touche à la fois les pays en développement et développés. En fixant des objectifs, ces contrats sont censés faciliter le processus de suivi de la performance du service. Des indicateurs sont choisis et servent à mesurer les progrès et les avancements d'un programme pour les comparer à des résultats escomptés. Après quoi, il devient possible de rendre compte de la performance du service, de la suivre et de la contrôler. Avec ces contrats, l'autorité publique cherche à mettre en avant auprès de ses administrés ou des bailleurs de fonds, la transparence et la performance du ou des services publics d'eau. Pour autant, cette démarche est complexe et sa réussite dépend de facteurs internes et externes non négligeables. Les cas d'analyse permettront d'identifier les points communs et facteurs de réussite de ces outils utilisés dans des situations très différentes.

**Mots clés :** Contrat d'objectifs, services publics, autorité publique, exploitant public, performance, amélioration, indicateurs, outil de suivi, transparence.

#### SET OF INITIALS AND ABBREVIATIONS

APC - Area Performance Contract

BoD – Board of directors

CdP - Public authority: Conseil de Paris

EdP - in-house management of water utilities: Eau de Paris

IDAMC - Internally Delegated Area Management Contracts

MDG - Millennium Development Goals

NPM - New Public Management

NWSC - National Water and Sewerage Corporation of Uganda PC – Performance Contract

PI - Performance indicators

PUP - Public-Public partnership

SEM - Société d'Economie Mixte – corporation whose capital is majority owned by public entities

SMART - Specific, Measurable, Achievable, Realistic and Timebound objectives

SWOT - Strengths, Weaknesses, Opportunities and Threats Analysis

**UN - United-Nations** 

VdP - independent authority: Ville de Paris

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#### **PREAMBLE**

The implementation of a Performance Contract (PC) between a competent public authority for water management and a public operator aims to increase performance and to improve relationships to better serve users.

In this context, the present synthesis will gather evidence to better understand this tool. In the absence of dedicated literature, the analysis is based on two precise case studies. These PCs are also analyzed and it is possible to see trends emerge. In addition to their visibility (access contracts, annual reports), these cases are interesting because they represent various geographical and temporal scales and are the result of quite distinct approaches.

Particular care has been taken to pragmatically analyze experience feedback from the cocontractors themselves.

The analysis does not provide a complete solution for the implementation of a PC but can enable us to understandthe logic of these contracts within their relevant contexts.

#### INTRODUCTION

Implementation of contracts aimed to find reciprocal commitments between two parties of interest. The aim is to reach an expected performance. When the Public Service of water is delegated to a private corporation (DSP), the establishment of a contract between the public authority and a private company is a key element. This tool is not an obligation when it is to regulate the relationship between a public authority and an operator.

The specificity of performance contracts (PC) between a public authority and a public operator is the will of switching from a "means logic" to 'results' to search to make the service more efficient.

The steps of this new approach are: co-contractors clarify the roles and responsibilities of each party, they also establish a system of performance indicators (PIs) and formalize the monitoring mechanisms. After which, a single written document structures the relationship between the parties.

The PC has a legal structure but no legal constraint and its goal is to improve the performance of a public service. However, these documents are under the influence of contexts in which they are implemented and meet very specific needs.

Therefore, it is difficult to make a general analysis because this tool has still not been studied in any great detail, especially when framing the contractual relationship between a public authority and an operator. With an analysis of two cases, we will try to have a better understanding of this practice. Whilst this technical synthesis cannot be exhaustive the research work will nevertheless try to better understand the issues of these contracts. Nowadays the efficiency of public services is an issue all around the world. Improving the efficiency of water services is a particularly topical subject. So the question is how the PC can optimize the relationship between a public authority and a public operator. It is also to see what they bring beyond the expected increase of efficiency on the service.

We will see in the first part the contexts that lead to the development of this practice. It will thenl be possible to put into perspective the characteristic elements of contracts and highlight the contributions of these tools.

#### PART 1: THE PERFORMANCE CONTRAT: AN INNOVATIVE TOOL?

The PC is not a systematized tool for monitoring the performance of a public management water service. The first part will seek to understand why this tool has become more attractive today and to see where it's globally used and finally analyze two cases.

#### **OVERVIEW OF THE USES OF A PERFORMANCE CONTRACT**

A performance tool: but how and why?

All around the world water management is provided by almost 90% via public sector operators (Hall and al., 2009). While the expertise developed is significant it is not sufficiently aware of the competitive pressures of the private sector in order to grow. The management of public

operators by a competent authority also public (often from the same department) has been criticized for its limited developed performance culture. The PC between a public authority and a public provider is a tool to change these criticisms. We will see in the next sub-sections how this document was gradually embedded in the management of water and sanitation services. Two trends were able to prove the potential of the PC.

#### The development of performance-related approach in the public sector

Under the influence of civil society, a new called approach **New Public management (NPM)** appeared in 1980-1990 It came from New Zealand and the United States. This approach was **designed to make use of management practices of the private sector to improve performance management in the public sector** (Schwartz, 2007; Baruch, 2010). The trend is to give more autonomy to the public operator and provide specific monitoring. This is the emergence of market-based management, where previously there was a bureaucratic model.

NPM came to prominence under the influence of donor funds, particularly in developing countries. Indeed, given the risks of corruption and poor results, banks' investments became dependent on improved results under condition of a change or an eventual return to a privatized system (Schwartz, 2007; Colon, 2010 Colon, Guérin-Schneider, 2013).

In industrialized countries, public water utilities are facing increasing pressure to optimize costs and the quality of the service. This user demand comes with a request of transparency concerning the activities of the operator and a better monitoring by the organizing authority (Grandgirard and Barbier, 2006 Le Strat, 2011; Mairie de Paris and Eau de Paris, 2012; Sinai 2013).

The contractual management based on a new performance culture appears as a solution to these new challenges.

#### \*A tool for the reform of water services?

Developing countries have issues to access water and sanitation. This concerns a large part of their population. Even if the services exist, their performance is sometimes inconclusive. Of course the failure of these services can lead to health problems. In addition, water is at the crossroads of various public policies (health protection, the fight against poverty, environmental protection). **Under the influence of international donors and to achieve the MDGs, many countries have begun to reform their water services**. In this case, the introduction of PC responds in results conditions required by funding agencies (Mugisha and Brown, 2010; Environmental Action Programme Task Force, 2011; Colon and Guérin- Schneider, 2013).

In the 1980s, political strategies and the recommendations of donors led to the reform many water services. The expertise of private companies and merchant models of water management were often favored (Schwartz, 2007 Colon, 2010 Sinai, 2013). In response to this trend, some countries have used the PC to demonstrate the ability of their public operator to provide a more consistent service with the government's request. In these contexts, the implemented PC depends on the public service's history or the concerned area. It also depends on other internal factors to the city or country that establishes the PC and involves monitoring the water service desired by the authority (World Bank, 1995; Mugisha and al, 2004).

The emergence of this tool is in the continuity of optimization of water services approach, but each time from specific contexts. Nevertheless, we can understand why this tool cannot be systematized or off-the-shelf.

#### The emergence of a tool of legitimacy

With the reforms of the management of water utilities, the PC is one of the tools available to the public authority to monitor and measure performance improvement. The development of this tool seems to be a response to previous failures. The literature shows that the changes and reforms that go with the PC, are only doable if the following conditions are met (The World Bank, 1995; Shirley, 1998):

- Politically desirable. Transaction costs should not be greater than the expected benefits.
- **Politically feasible**. The government or competent authority must have the means to cover the costs of transactions and overcome difficulties and explicit or implicit resistance to changes.
- **Believable** for the employees who will live the changes. Only the will of the competent authority to go to the completion of the PC implementation can lead the process to success.

When these parameters are met, the tool allows an **improvement of legitimacy through transparency and monitoring** (Mugisha and al, 2005; Agrawal, 2009). With the two cases analyzed, the next sections will discuss the scope of this tool.

The table shows the following information:

	New Public Management	Reforming structures with previous poor results
Objective	More transparent management, restore civil society confidence.	Optimize the results of water services, improve the donors' accountability, achieving the MDGs
Process	- Use of management practices from the private sector Develop new tools (PCs and others).	The PC is an adapted tool to the reform of water services managed by public operators.
Terms	Doable only under conditions (politically fea	sible and desirable, credible approach).

Figure 1 : The PCs find their places in the historical context of water services (author's own figure creation)

#### **Assessment of the extent of the phenomenon**

The literature dedicated to PCs used to improve the management of the services of water with public operators is anecdotal contrary to the one dealing with Public Private Partnerships. According to Shirley and Xu (1997) the PC is not a recent tool. It appeared at the end of the 1980s to regulate relations between diverse levels of public institutions. According to this study, these contracts then became fashionable for all public services (transport, electricity, etc.). But not yet specifically applied to public water services. These contracts are criticized by the authors. The subsection 3 of the second part of the synthesis details this critical analysis. Nevertheless, their analysis of 1997 counted 565 contracts in 32 developing countries and 103,000 in China in 1994. The contribution of this study is relative because no literature confirms development this practice trend for water services.

It seems that the use of this tool in the management of public water services, under the form of a unique document named Performance Contract / Performance Agreement is recent because it is little mentioned in the dedicated literature. The Mugabi study (2009) dedicated to "Water Operators Partnerships" in Africa, mentions the PC of Uganda, Zambia, Lesotho and Swaziland. It is known that PCs are on an average 5 years and cover technical PI, efficiency, financial

performance and human resources management. The study reveals that 57% of WOPs are with public operators via PCs. This represents 40 % in East Africa. This information could not be confirmed by study of PCs, **because it is challenging to obtain these documents** on the grounds that they are rarely published. The analyzed PCs at the following sub- section (PC between NWSC and the Ugandan government and Eau de Paris and the Ville of Paris) **are easier to access, probably** because of their value of example. This explains why we go into detail concerning these cases in order to identify some similarities and trends in their implementation and in the absence of literature on the subject.

Some countries limited the development of these partnerships although they use the PC as a management tool. In Brazil, the use of a PC is not a common thing between two public contractors. Although this is encouraged for partnerships between a public and a private operator (International Finance Corporation, 2013). In Brazil, the use of a public operator from another region is considered as a backup plan for the public authority for two reasons: 1 / Legal restrictions complicate the development of public providers outside their home region. 2 / The local people are reluctant to see a public company investing in another water service or region when there is already a strong pressure to reduce the profits that public company would be likely public operators lack financial generate. These therefore capacity.

Let us remember that the use of the PC between public authorities and operators to manage water services is a relatively recent trend, but still very unevenly spread around the world. A more detailed inventory is difficult to establish because there is not much information available or accessible to the public.

After the details of the cases where you can use a PC and after a quick review of the most visible PCs, the following section aims to analyze real cases. From there, we are going to explore the conditions that lead to contracting, pre milestones in the initiative and its institutionalization.

### **CONDITIONS FOR USE OF PERFORMANCE CONTRACT: Understanding the approach to contracting through cases studies**

The use of a PC can allow to go beyond the criticisms regarding the effectiveness of the public services but also those usually used in the private sector (Fauquert, 2007, Hall et al, 2009). But if a PC aims to optimize the partnership between public authorities and operators, they are closely related to the contexts in which they have been implemented. They are adapted from their development to specific issues that must be taken into account. Through two examples that represent different scales, the goal of this section is to understand the process that led to the introduction of new management models.

#### The case of NWSC in Uganda

#### Key milestones

This case illustrates the pressure that international donors put on the government and reflects the application of the concept of NPM in Africa. It is the approach of improving the performance of the National Water and Sewerage Corporation (NWSC). In the 1990s, the management of water and sanitation services in the major cities of Uganda was deemed to be «inadequate» (Mugisha and Berg, 2007; Warwick and Cann, 2007; Agrawal, 2009), but then became an emblem of management. The following information is derived from interviews with Marine Colon, an analysis of NWSC reports and publications of Mugisha et al. (2004, 2005, 2007, and 2010).

This state-owned enterprise, established in 1972, was a symbol of Ugandan independence at

the end of the British protectorate. The mission of the NWSC was to share its expertise and resources to renew the fifty year old infrastructure. But a dictatorship quickly ended this difficult republican period. In the 1990s, the NWSC appeared as a company with aging infrastructures in a difficult business and financial condition, despite significant international donor investments. The major cause was insufficient revenue to get out of debt and break free from corruption. In 1995, the government committed to reform the water sector. A new manager (an economist), was appointed as director of the NWSC. He undertook to make significant changes in the management of the company and to restore the confidence of donors. It enabled the modernization of the company on the basis of a management coming from the private sector. PCs were at its heart.

Following these initial changes, the public operator acquired the recognition of donors. It allows it to engage in a process of institutionalization of the PCs, as we now be explained in more detail.

#### The organization between the public authority and the operator

In 1995, Parliament passed a **new constitution giving more autonomy to the NWSC**. This vote allowed the **opening of the Board of Directors** (BoD) **to a civil society** and a **clear definition of the responsibilities of those assigned to it**. NWSC BoD is now the main executive body. These milestones were precursors to initiate a reform of the company according to Mugisha et al. (2004). Between 1997 and 2000, two temporary management programs sought to visibly improve the performance of NWSC and to **restore confidence to international donors**. They agreed to delay the threat of privatization if the company would continue its efforts in terms of improving its performance. Also, **these programs would allow the creation of a corporate culture**.

It was in this context, in 2000, that the first PC was launched between the finance, water and environment ministries and the leaders of the NWSC. Thus between 2000 and 2012, four triennial PCs would ensure the financial sustainability of the organization and allow the debt freezing of the NWSC. PCs have changed over the time depending on the progress of the objectives and the birth of a corporate culture (Colon, 2010).

NWSC communicates more about the Corporate Plan, which represents the application of a PC in a managerial policy, as well as the PCs themselves made with the Ugandan government. The simultaneous reading of these business plans, which followed the same three-year phasing as PC, allows us to understand the results and the path made by the NWSC to better control its operational and financial performance.

The originality of the Ugandan context was that by 2000, the first PC was also annually developed in « Area Performance Contract » (APC) to enforce the objectives of the headquarters in each internal operational agency. In 2004, a second generation of internal contracts was proposed to better prioritize and involve operational teams. These are the « Internally Delegated Area Management Contracts » (IDAMCs). Appendix 1 mapping the structure of these various contracts.

With APCs, **NWSC** deployed management tools used in the private sector like the SMART tool (Specific, Measurable, Achievable, Realistic and time bound objective) or the SWOT tool (Strengths, Weaknesses, Opportunities and Threats Analysis). These tools are indicative of top and down design modeled by the first contracts (a trend reversed with IDAMCs). The other innovation of APCs was to give more financial and human resources management autonomy to operational agencies. These contracts managed to revitalize the involvement of managers. However, the results of other performance objectives for water service remained inadequate. This led NWSC to develop the second generation of internal contracts (always synchronized

with the PC) signed with the government. The innovation of IDAMCs was **to empower the management team of each agency**. It is now the managers who define the operating budget and competitive incentives. These vectors are essential to involve managers in achieving performances. We will later detail the importance of incentives.

The structure of a PC signed between the government and the NWSC follows formalism for writing detailed in the legal status of the NWSC (Mugisha and al., 2005). They included: the duration of the contract, the obligations of each contractor, the termination conditions and terms of arbitration. A multidisciplinary committee is working on the draft document, which is then presented to a group of employees representing the management and technical teams. The objective of this consultation is to reach a consensus. The credibility of the approach allows for the acceptance and the ownership of the objectives by the employees. However, the board leadership helped to change old habits. The process mobilized the NWSC management to all employees. NWSC perceives the overall performance of the company as interdependent involvement and competitive teams. At this stage of the analysis of the implementation of a PC between NWSC and the Ugandan government, we note:

Figure 2 : Timeline of implementation of a PC between NWSC and the Ugandan government (author's own figure creation)

Period before 1995	1995-today	1998-2003	2003- today
Dark period - financial support of international aid to address the NWSC. Nevertheless, the public operator is in a position of indebtedness. Corruption. Non-Revenue Water; Problem of access to water. Heritage deteriorates	Implementation of a major reform of the water sector which led to an overhaul of the NWSC	Signature of the first programs of internal management	PCs have three year duration. They are available in Business Plans and in the internal management contracts.
Pressure from donors to privatize water management.	Donors are awaiting results.	Renewal confidence NWSC is emblematic reform of water services.	NWSC expertise is recognized and shared with other water services.

The PCs are the **result of the NWSC will to not be privatized**. In the early 2000s, the debt freezes of the public operator rewards the improvement of the performance. This success is due to the variation of a PC signed with the government as internal contracts declined to the agencies and based on a typical operation of the private sector. **Once established, the contracts evolve and become more complex over the years accompanying the management change** (Mugisha and al, 2005; Colon, 2010).

#### Case study 2: Paris

The following case is quite different from the previous (rather intended to reassure international aid), because of the **search for legitimacy in relation to users and re-appropriation of the service** VdP that will be detailed later. This is a rare case of highly publicized use of a PC in Europe, probably due to the national particularities of the management of water services.

#### Key milestones

The second case concerns the city of Paris (VdP). In 2003, the Cour des Comptes (Court of Accounts) produced a critical report on the loss of technical skills of water services due to the DSP. One reason was the faulty control of public authorities (due to time constraints, means or vigilance). The consequences were significant: operators' annuities increased as well as prices,

but the infrastructure modernization investments were slow to be implemented (Le Strat, 2011; Mayor of Paris and Eau de Paris, 2012; Sinai, 2013). Following the publication of this information, the VdP sought to reclaim public water management. The early 2000s were also marked in France by "the emergence of a need for quantification of performance" (Canneva and Guérin-Schneider, 2012). This was the beginning of a process where the development of a PC is the "cornerstone" to recover full control of the service and to improve performance (Souquiere, 2012). Unlike the case of Uganda, the approach appears to be a political and communicative approach to increase the credibility of the authority in the eyes of civil society.

Since 1985 the city has been bound by three DSP contracts for the production and distribution of water. These contracts are for a period of twenty-five years. The first contract was signed with a Mixed Economy Company (SEM). The mission of this structure is the control of two private distributors that share water production. This private company is characterized by a capital, which is majority owned by public entities but also by at least one private person. Anne Le Strat, CEO of EdP, attributes the poor management to a conflict of interest related to the presence of the directors of the DSP on the board of the SEM (Le Strat, 2011).

In 2007, Bertrand Delanoë made a campaign promise to put back the technical competence of water into the hands of the community. At the same time, a process of consultation with all the staff was initiated. At the heart of the debate: how to organize the transfer of personnel, technical management and heritage to the new board? This period was marked by negotiations, described as "relatively difficult" by Anne Le Strat, between VdP and its two private operators.

Finally, on December 30, 2009 a performance contract was signed between the public operator VdP and the newly created Eau de Paris (EdP).

The organization between the public authority and the operator

The PC implemented by VdP was a significant gesture in France for water management. The promise was that a return to public management would allow Paris to have a better water quality with a reduced cost. Thus, the focus was on the effectiveness of the structure put in place which would be closely followed by civil society.

The EdP governance, introduced in 01.01. 2010, was a Public Establishment with Industrial and Commercial skills (EPIC). In law, it is an **autonomous legal entity, governed by its own authorities and administered by the BoD.** This BoD is not subject to the same rules of hierarchical control as other municipal departments. Its statutes specify that this public operator will be responsible for the generation, transmission, distribution and billing of water in the city of Paris.

The EdP BoD is today composed of ten elected members from all political groups of the Council of Paris (COP) and two staff representatives, each having one vote. It is complemented by five members from associations defending the rights of consumers or the environment. Finally, **citizen control** is provided by a member of the advisory vote Observatoire Municipal de l'Eau (Municipal Observatory Water), which is the structure through which users evaluate the service (Sinai, 2013). This Observatoire, created in 2006 by the VdP was designed to be an example of **participatory democracy**. This structure brings together representatives of consumers, elected city representatives, institutional actors, representatives of social landlords, academics, researchers and other experts. This is a forum for information, discussion and debate as evidenced by the verbatim 01/11/2012 dealing with the revision of the PC (Observatoire de Paris and Mairie de Paris, 2012). The Observatory is regularly involved in discussions and decisions of the VdP.

At this stage of the analysis of the implementation of a PC between the VdP and EdP, we can not the following:

Period before 2003	2003-2009	2009- today
Period of loss of control of public water management in Paris	Gradual preparation of return in public management - Various feasibility studies	Switching to public management with a strong publicity for the communication and monitoring tool: PC.
Insufficient mastery of operators (price and quality) - the Cour des Comptes issues an alarming report that challenges civil society	Water in Paris becomes a campaign issue.	Many actions taken to restore confidence in civil society: changes in the composition of BoD now open to citizen control, creation of an Observatoire and especially, implementation of the PC that clarifies roles and responsibilities.

Figure 3: Timeline of the introduction of the PC between the VdP and EdP (author's own table creation)

Understanding the context of the implementation of contracts studied is essential to connect with their content, and how it is developed with a view to optimizing the relationship between operators and public authorities. This will be discussed in the following section.

### PART 2: THE STRUCTURAL ELEMENTS OF CONTRACTS AT THE HEART OF EXPECTED PERFORMANCE

The PC is a structured document that gathers essential information to clarify the relationship between the parties. However, Pls are at the heart of the performance objectives of the contract. The analysis therefore focuses primarily on their compositions and vocations.

#### INDICATORS AT THE HEART OF THE PERFORMANCE CONTRACT

If the elaboration of a PI is a complex phase in order to determine its content and form (Canneva and Guérin-Schneider, 2012), understanding what they indicate is essential to analyzing the subject of a PC. Going through the PIs published in the PCs, the next section aims to highlight what co-contractors follow and what they might wish to demonstrate.

#### The indicators

In this section, we will review PI studied with the two cases. We will then see if any common conclusions can be drawn.

Let us begin with an analysis of the objectives of the Uganda PC and its Corporate Plan: The available indicators in the fourth PC (2009-2012) are limited in number and can easily be compared with the results obtained and available in the annual report of 2012.

Source: Fourth Performance Contract 2009-2012 (PC 4) - page 13.

Annal report 2012 Results from the report of the NWSC
2012 Financial
not available

-						53.8 million cubic meters of water
		N	WSC Pe	rformance	e Targets fo	not available
Key Performance Targets	Baseline	Year 1 In Line Targets	Year 2 In Line Targets	Year 3 In Line Targets	Relative weighting	5.7% (calculated and not available as such result)
		2009/10	2010/11	2011/12		Technical efficiency
FINANCIAL						32.6% overall for both indicators
Return Capital Employed (%)	3.16%	4.00%	4.50%	5.00%	5.0%	
Water Sales	44.5	45.6	47.2	50.3	12.5%	
Average receivables collection days	155	140	135	130	7.5%	Commercial efficiency
Capital Works Implemented as a %age of						301 new sewer connections
budget	70%	75%	80%	85%	12.5%	23352 new water connections
TECHNICAL EFFICIENCY						Customer orientation
NRW (%) Kampala	42.9%	41.9%	40.5%	38.0%	5.0%	87.5%
NRW (%) Rest	16.7%	15.7%	14.7%	13.7%	10.0%	07.570
COMMERCIAL EFFICIENCY						Service quality / environment
COMMERCIAL ET FICIENCY						Color Settings: 87.6%, turbidity 87.8%, E-Coli: 99.65% (no information on TSS and
Increase in New Sewerage Connections	285	312	341	373	5.0%	chlorine residual, data available in previous reports)
Increase In New Water Connections	22,637	23,000	23,500	24,000	12.5%	Results by parameters: BOD5: 29.3% (32% in 2009) in accordance / MES: 52.1% (43% in 2009) in accordance / faecal coliforms: 70% (52% compliant in 2009)
CUSTOMER ORIENTATION					-	, , , , ,
Customer Satisfaction Index	NIL	60%	NIL	70%	5.0%	Pro poor orientation
Salona Salonador mask		00.0		1070	0.070	2009/10 : 9.3% - 2010/11 : 32% - 2011/2012 : 2%
QUALITY OF SERVICE / ENVIRONMENT						T
Compliance with National Standard for Drinking (potable) water. 2008	95%	95.0%	95%	95%	5.0%	Transparency/governance
Compliance with all 54 Effluent discharge parameters.	(< 60%)	65%	65%	65%	5.0%	Information not available as such in the report
parameter.	(-00%)	5576	5570	5570	5.576	
PRO POOR ORIENTATION						
Increase in number of connections on subsidized Tariff (PSP Tariff)	2%	3%	4%	5%	5.0%	
TRANSPARENCY/GOVERNANCE	-					
Percentage Of Internal and External Audit Recommendations Implemented during the yr.	75%	77.5%	80%	85%	10.0%	

Once compiled with the results, the indicators show that the goals are uneven. Along with these results, a comparative Corporate Plan and an annual report reading allows a good understanding of the performance improvements. We also see how the director of NWSC was able to target the performance of some types of indicators.

Indeed, the PIs are at the heart of different strategic periods to improve the performance of the public provider. If the first two PCs, set out in Corporate Plans, help to restore the confidence of donors, with the next two, we realize the performed work and the approach of the company to become a model of public management. It is also interesting to analyze the changes between the second (2003-2006) and the fourth PC (2009-20012).

With a comparative reading of the documents, we can note that after 2009, the NWSC gave priority to other types of indicators and was no longer confined to monitoring commercial and financial performances.

Before this change of direction (see Appendix 2 indicators provided in the CO 2003-2006), the NWSC worked to increase the volume of sold and produced water. This was due to the fact that bill collection and water failed to generate revenue. On top of that it had to improve the number of connections and the national debt. The NWSC will thus expand its scope of intervention (from 9 to 23 cities served) and the number of subscribers to the service. This will enable it to achieve financial viability and a freezing of its debt by the government. This specificity of indicators particular to the context of the state enterprise needs to be highlighted. As a second step, the technical and commercial PI range is oversimplified as revealed in the fourth PC signed with the government. By reading the Business Plan, we can see that this information is monitored but the government is committed to new values and an improved quality of public service as we will detail in the next sub-section and Appendix 4.

Retrospectively, it is clear that the NWSC gained in experience through the evolution of its PCs. Confident in its ability to achieve the MDGs and to cover its operating costs, the NWSC still sees that new social and qualitative challenges to be overcome if the company wants to remain effective. Following this analysis of two PCs, it is interesting to make the connection with the Corporate Plan and to see how targets are internally set. Five major objective themes are visible

in the Corporate Plan of 2006 and are common to all of the company:  $\equiv$  Operational efficiency (5/6 of the Pls are objectified and quantified)  $\equiv$  financial sustainability (4 quantitative Pls)  $\equiv$  coverage of sewerage network (2/3 are quantitative Pls)  $\equiv$  investment in flagship projects of rehabilitation of networks or improve the efficiency of investments (3 projects but not quantitative Pls)  $\equiv$  reform and restructuring where necessary (4 lines of work). Placed end to end, and for all agencies, **the management of Pl is a task that can seem complex.** We will state from this analysis that contractors focus on business and financial performance. Also, it will evolve in 2009 when the company is financially stable.

Let us now analyze the PIs developed collectively by the VdP and its public operator.

For Guérin-Schneider and Nakhla (2003), "Public management is a contract of undefined duration. It is as important for the community to be able to set goals and to compare with others". This explains why the Communications Director of EdP, Mathieu Souquiere (2012), sees in the PC a tool that goes beyond a simple management contract due to Pls. This tool is highlighted by the municipality for its ability to measure performance, to boost transparency and to control the correct execution of the service.

The first approved contract by the CdP in November, (23rd and 24th of 2009) was signed in December of the same year. It is composed of 10 major goals. In the trend of negotiations in France on PIs performance of water services, they had to be the result of negotiations between the major co- contractors (Canneva and Guérin- Schneider, 2011). The contract has more than 130 quantitative and qualitative PIs (Sinai, 2013). The contract specifies how the target PI is connected, its definition, the frequency of monitoring, whether or not it is a regulatory PI, the threshold, the intermediate target and the goal at the end of the period of 2010 -2014. A review of the PCs was achieved by a decision of CdP in March 2012 and a review would be achieved by EdP's BoD next month (Observatoire Parisien de l'Eau and Mairie de Paris, 2012). For this revision, the public authority will improve the way the public operator is accountable. After nearly two years of use, PIs are (re) defined and associated with targets (more information in Appendix 3) We note that 12 Pls of the initial 26 of the 6 objectives are limited to monitor data that is tracked by ONEMA. These PIs are not innovative since all the French water services have to follow them according to the "Rapport sur le Prix et la qualité du Service", established by Article 73 of Law No. 95-101 of 2 February 1995, known as the "Loi Barnier " and supplemented by Decree No. 2007-675 of 02.05.2007. One may then ask the question raised by Canneva and Guérin-Schneider (2011) about the PI: "Despite their technical and apparent objectivity, they reflect special interests and do not guarantee neutrality." Here, the VdP is facing a problem of a highly politicized water management. Establishing the PC allows the VdP to communicate on the transparency of the management of the public operator.

After the analysis of the PIs of those two cases, we can make the following observations:

Perfectly described Indicators	Pls are very important. The issue of their good common definition is essential. This enables their reliability when collecting information or in the interpretation. Misinterpretations would be serious. The risk is to find similarities between the Pls and to have less specific Pls despite various contexts of implementation (Grandgirard and Barbier, 2006).
Indicators evolve over time	These changes are needed to continue to adapt to the business and make it grow. The general themes are necessary for the overall monitoring of the functioning of business activities. Nevertheless, the PCs must maintain specific PIs related to the context of the contract and its issues in time.

Figure 4: Trends from the evolution of PCs, for the definition of PIs (author's own table creation)

Based on our two cases studied, we can note the importance of the PC's PIs in order to bring the contractors to focus their actions and communications on specific points of the service. The next section sets out to clarify the induced effects by these PIs in the functioning of relationships between co-contractors.

#### A targeted performance and the effects induced by performance measurement

There are effects that are commonly associated with performance measurement (Meyer and Gupta, 1994). According to these authors, the structure that must meet targets will gradually develop strategies. These strategies are explicit or implicit and are detailed below:

First, there is a **positive learning phenomenon** related to PIs. According to the authors, in order to demonstrate the performance of the service, employees will adopt a strategic and an oriented action. This enables learning and a monitoring phenomenon focused on specific issues. However the PIs will not be able to point out poor performances and therefore quickly become irrelevant.

Secondly, this can lead to a **perverse learning phenomenon**. This means that the staff will only focus on what will provide a good image of their work. It is also possible that focusing performance on certain PIs can cause the loss of certain values. Such as the image of the public service for the benefit of the primary motivations of the operator profitability. See details in Appendix 4. There is therefore a risk to focus on PIs such as performance information because it is detrimental to overall performance.

Finally, Pls undergo significant transaction costs when they are developed (as detailed in Part I). They cannot easily adapt to fast changing situations, although that can happen.

Knowing this helps to understand how the choice of PIs can guide the performance of an operator. Achieving a target figure may make one wonder whether the PI is sufficient to account for a complex set of elements. The answer can be found by an analysis of our two cases.

#### Comparative analysis of EdP and NWSC PCs

The PIs of EdP are mainly non-quantitative. However, they are almost all quantitative for NWSC. A pattern emerges through both PCs: it is difficult to see the priorities, reliabilities or complexities of the PIs to be deployed.

PCs are limited to structure the PIs whether they reflect financial performance, management, communication, etc... We do not know either the **level of exogenous influence that PIs may suffer from** (for example, the Ugandan case, the PIs of a continuous water supply seems irrelevant when the challenge of the company is now to find an alternative to the failures of electricity generators that makes the goal impossible to achieve). Thus **reducing the complex reality in dashboards limits the understanding of the various parameters** (sometimes difficult to measure) that will influence the result. If the PCs are to define performances through objectives, it is not easy to build what Riveline (1991) calls "the abbreviations of the true" (les abbrégés du vrai).

However, monitoring dashboards is a **good tool for decision support**. This is done on the basis of quantitative criteria that have **a valuable advantage: to be brief**. Thus, the PIs monitoring is a solution to allow controlling over time. It also **allows a comparison with similar structures**. Also we should not forget that dashboards **facilitate decision making and are extremely effective when the public authority wants to communicate results**.

Let us bear in mind the following effects of the establishment of indicators:

Internal effects: The measuring challenges

Positive learning phenomenon related to PIs	Indicators may also have negative effects	The effects of the measure	Negative issues: How to prioritize? What reliability? What are difficulties during implementation?
The risk is to have deliberately unambitious indicators and therefore obsolete	sight of the values		

Figure 5 : The effects induced by the establishment of the indicator and by monitoring (author's own table creation)

Once the attention is on measuring elements, the analysis focuses on tracking means. This enables us to understand the types of monitoring and of special incentives in different studied contexts.

#### STRUCTURES AND MECHANISMS OF MONITORING

#### Incentives

To become a model of public management using management methods of the private sector, incentives and monitoring structures are part of the NWSC PCs.

According to information obtained thanks to private interviews with Marine Colon, the incentives are important in achieving results such as in Uganda. The most revealing part of the theatrical awards to employees is the ceremony trophies and checks. This event was anchored in the culture of NWSC even before the arrival of PCs. This event will even be retained and further developed. This complication occurs because the management team realizes that the first generation of internal contracts APC (2000-2003) were deliberately unambitious. The table below summarizes the mechanisms of bonuses and penalties provided in the fourth PC.

Performance	Aggregate score	Measure	Bonus/Penalty
Outstanding	4	8% points above PC IV Target	25%
PC IV Target.	3	As given in the <b>Appendix II</b>	12.5%
Base Performance Target	2	As given in the <b>Appendix II</b>	0%
Below Expectations	1	Failure to achieve Half the Base Performance Targets (weighted)	(6.25%)
Poor (Extreme underperformance)	0	Failure to achieve All the Base Performance Targets (weighted)	(12.5%)

Figure 6: Table 6: Incentives in the fourth PC (2009-2012) of the NWSC.

It is interesting to see how these mechanisms are set out in the company and in time. Indeed, if the government provides the PCs incentive mechanisms they are much more detailed practice in Corporate Plans and Internal Contracts.

Before 2003 After 2003	Penalty System	Assessment of incentives
------------------------	----------------	--------------------------

Conservation of the	Return to individual	Mixed results:	- Too complex mechanisms
previous model of	mechanisms:	Misperceived	can demotivate employees
ceremony trophies and	Enhancement of staff	mechanism and	- Importance of the accuracy of
checks.	skills, availability,	not really	incentive mechanisms and
This program becomes	responsiveness, sense	exploited	their development "tailor-
more complex: additional	of initiative are valued	·	made"
financial incentives to the	and used to go to a		- Transparency of criteria for
most innovative and	more global		success and sustainability of
motivated agencies.	performance.		the system

Figure 7: Incentive mechanisms are set out in the company and in time (author's own table creation)

These mechanisms have been experienced as something complex for employees. They were tired of the quick accumulation of management principles. This led to a demotivation of the teams. Signs of discontent have also arisen because financial incentives have stagnated over time and an upper limit level of human resources performance has been achieved (Colon, 2010).

Moreover, the first generation of internal contract performance establishes the **penalty system**. The failure of achieving 85% of the results of three consecutive months led to the loss of a bonus. But this system is very badly received by agency managers. The headquarters clarify the penalties by explaining that they would only apply it if the directors did not justify their failure against targets (Colon, 2010). This system has not been renewed in IDAMCs although this it is included in the PC signed with the Ugandan government.

Great importance must be given to the **right choice of incentives** (Mugisha and al., 2005). These authors theorize the criteria that **make for an acceptable balance between what the operators demonstrate to be an ambitious goal and what in reality is not a realistic goal**. However, the incentive mechanism must take into **account the efforts made but not translated into objectives**. Thus, incentive systems must be tailor-made because they will have an impact only if they are perfectly adapted to the context of the operator. These incentive measures, like the objectives, are indexed to criteria that will generate cash for the company but also on the expectations and ambitions of the public authority on its territory. From there, the challenge is that the rules need to be explicit from the outset, **before the signing** of the PC.

The VdP, where the PC appears as an innovative and proactive approach has not implemented incentive but relied more on monitoring structures. This is the PC mechanism of control and monitoring as we will detail in the next section.

#### **Monitoring mechanisms**

The objectives of the PC should target what will report of the financial sustainability of the public operator and its operational performance (Mugisha and al., 2005). These authors have identified some recommendations regarding the monitoring of PIs:

- The performance control phase has to be carefully and regularly planned,
- Pls can be easily compared to the results of customer satisfaction surveys,
- The measurement of these PIs must **be simple in order to facilitate a consensus** between the parties,
- And the monitoring has to be carried out by qualified and relevant people.

Concerning this last recommendation, the PCs declined in the Uganda Business Plans are the best to describe the specific expectations of the monitoring team. The chart attached to the Corporate Plan 2006-2009 shows that the internal audit team has significant power because of its direct connection to the board. The expected role of this team is to monitor and control the overall management structures and compliance with the regulatory framework of the public operator. Finally, a key point appears. This team ensures how the managers will monitor and report their Pls.

With the analysis of these two PCs based on performance, it is understood **that the resources for monitoring and evaluation of the performance are significant** but again, depend on the choice of co-contractors. The time devoted, audit and dedicated control structures are not immediately productive parameters. However, this control is essential for the viability of the approach. The heaviness of monitoring mechanisms can question the bureaucratic rigidity of the tool that nevertheless seeks to move towards a market logic. This observation is one of the criticisms that are made of the New Public Management, where the implementation of tools and PIs in order to improve performance fears the loss of public value (Colon and Guérin-Schneider, 2013).

This table sums what should be borne in mind when considering monitoring mechanisms:

Pls monitoring	Structural organization	Common follow-up phases
Possibility to compare the results of PIs and	Creation of an	Need careful planning:
cross them with other sources of information.	independent body to	
Well designed PIs enable consensual	monitor and control Pls.	Monthly operational
monitoring.	From the outset, define	monitoring, quarterly reporting
Credibility of the persons in charge of the	the methods and content	and annual consolidation.
monitoring and control of the Pls.	of feedback and figures.	

Figure 8: Common practices in terms of monitoring mechanisms (author's own table creation)

After looking closely at the indicators and the monitoring mechanisms, the following section assesses the "continuous improvement" of our PCs performance. We will seek to identify the successes and the difficulties in contract implementation.

#### PERFORMANCE CONTRACTS: ASSESSEMENT

In this final section, we will discuss the results of PCs, either by their success factors or their links to other factors that should not be overlooked.

#### **Performance Contracts: what constitutes success?**

The appropriation of a new corporate culture

Success factors are found throughout the countries that have undertaken reforms of their water services to achieve the MDGs (Mugisha and Brown, 2010). One major factor is to n allow for autonomy of management to the operator. This facilitates the employee commitment to reform the management service. It will fit the ways of improving performance at the local context and its problems.

When significant changes in corporate culture happen, employees, even those intimately involved and interested as in Uganda, may tend to resist change. In Uganda, specific measures (retirement plans, passing indefinite contracts in two-year renewable contracts, establishment of a social security) follow the PCs to make the change of corporate culture easy (Colon and Guérin-Schneider, 2013). This appropriation of the new corporate culture step was also visible with EdP. Personnel movements are not easy but have an important role in the future performance of a service and have to be managed carefully.

#### The issue of indicators related to objectives

In Uganda, NWSC has proven its ability to evolve and overcome the challenges of increased performance after more than a decade of PCs. Appendix 5 shows the changes followed by PIs of the NWSC. In the case of EdP, the first PC set up was more symbolic than effective. Indeed,

in November 2011, the monitoring report showed that the ten main objectives had already been achieved (Mairie de Paris and Eau de Paris, 2012). This is confirmed from the table of the activity report 2012 Eau de Paris available in Appendix 6. Only after two years of implementation, did the CdP prepare an amendment to the PC. This document specifies the means to monitor the activity of EdP. This allows it to be more operational and relevant.

Also, despite the success of the PC, there are risks on objectives (Shirley and Xu, 1997):

- First in the definition of PIs. If employees and managers do not join the process, the PIs may be deliberately unambitious and therefore do not allow the company to become more efficient.
- Secondly, because the **PIs are compiled by employees, managers can manipulate information to their advantage**. By submitting incomplete information, managers can turn the results on their benefits if they do not join to the process. Thus even more if the **public authority has only limited monitoring capacity and incentives**.

Shirley and Xu (1997) questioned the effectiveness of the performance measurement. According to them, in the case of developing countries that have implemented PCs to reassure donors, the scope of performance measurement may be more symbolic than effective. This question may also be raised for VdP.

The following section aims to see external or internal risks, which will depend on the viability of the PCs.

#### A tool whose success also depends on external factors

Many external factors can affect the potential efficiency gains expected by PCs (Mugisha and al., 2004). Phases (from design to evaluation of the contract relevance to increase the performance of water service) are complex and are highly dependent on the context (political will and capacity, credibility of the process, asymmetric transmitted information, democratic participation). According to the authors, the three main factors to remember are as follows (note that these factors are more related to the Ugandan case):

- Some external factors that do not depend on the public operator may nevertheless
  affect its performance. For example in the Ugandan case, the will to pay for water by
  customers. NWSC faced governmental jurisdictions that do not want to pay for this
  service because, despite PCs, water is still perceived as a non-market good by
  customers.
- 2. It is necessary to take into account the time of an investment effectiveness in improving the performance.
- 3. Finally, despite the PCs, **corruption** also remains an important factor related to performance loss.

The PC reveals the initial maturity of the organizing authority that wants to implement it. This approach is dangerous. It takes time and is costly as was illustrated with the two cases. Transaction costs related to the implementation of the contract and its revisions will influence the content and the form. The concept of transaction costs developed by Coase (1937) and Williamson (1981), describes the principle that agents (which can be considered both contractors) have a bounded rationality (idea taken to Herbert Simon). This means that they do not optimize their behavior but stop when their solution seems satisfactory. On the other hand, these agents adopt opportunistic behavior. This is what we called earlier the asymmetric managers' information of the public operator in favor of their personal interests. The theory of transaction costs also describes the environment in which the parties will act as

complex and uncertain. From there, it is impossible to make accurate and complete contracts. According to the theory of incomplete contracts of Coase and Williamson, **every transaction involves a part of irreducible risk** (Fauquert, 2007).

With this information, the objectives of the PCs should be taken with caution. However, with time and the revisions of PCs, we note that the co-contractors become more mature (Sinai, 2013). The following table summarizes the essential information of this part of the success factors and issues related to PCs:

Figure 9 : Summary of success factors and challenges related to performance contracts (author's own table creation)

	The success factor	ors	The consequences of the
Inherent	Internal	External	implementation
The authority shall ensure that: - Getting to put up with his provider fair, relevant and collaborative Pls Encourage the change of corporate culture Know how to manage the imbalance of information provided by the operator.	The success of PCs based on employees' commitment and will to achieve goals. The reporting or internal imbalance opportunistic behavior can influence the outcome of the process	The context and situation of the water service will necessarily evolve. It is to know that all situations cannot be predicted from the contract negotiation. The results are sometimes visible in the long term.  The conditions of initial successes (politically feasible, desirable and credibility of the process) may change over time.	- Enables the monitoring and the knowledge of the service functioning Ensure the comparison and the assessment in the time with similar departments Guarantee its credibility before the public opinion and to be able to communicate easily

#### CONCLUSION

In the 2000s, the need for water utilities efficiency operated by public operators is required. The PC is one of the management tools available to the organizing authorities to clarify the roles and responsibilities of each party for the purpose of increasing the proportion of their operating performance. The phenomenon is studied through the analysis of the Ugandan and Parisian PCs and the contexts that led to their elaborations. The PC can be set up for different reasons: to reassure the international aid donors or to regain political credibility in the eyes of citizens. However, we can note some similarities. Objectives with Pls are critical and have to be agreed at the inception of the PC. These may be limited to account monitoring ongoing operations, or on the contrary, they can empower the public operator to focus its actions. For the PC to be credible, it is necessary that the organizing authority provides monitoring mechanisms, even according to the corporate culture, incentive mechanisms. Indeed, many difficulties more or less visible and predictable. These difficulties can alter the accuracy of the mechanisms established by the contract. For the studied cases, the establishment of a PC has at least helped to create a public debate. This usually makes the public operator and the competent authority more mature.

With the implementation of these performance measures and other NPM reforms, **the image of the public service will change.** The public service could now operate with a result logic. This logic was typical of the private sector. This approach generalizes to the north and south. It will change the behavior of private operators. The private sector will necessarily seek to evolve and to enhance their benefits and distinguish themselves in relation to public operators (investment capacity, budget flexibility). Without it, the risk for these private companies would be the loss of the market against the "re-municipalization" trend (OECD, 2011; International Finance Corporation, 2013).

We see that the role of objectives and PIs is to measure for objective assessment the achieved results. These measures allow informed decision-making and guide the strategy of the public operator. With these tools, the boundaries of operation between the public sector and the market logic of private operators are reduced. PCs, benchmark analyzes, and partnerships between countries are tools that contribute to the optimization of water utilities and the fact is that we are hearing more and talking increasingly about these tools. Especially since this resource of general interest will require an increasingly efficient management, but also one that is transparent, and all of this at a time when the resource is becoming increasingly scarce.

#### **BIBLIOGRAPHY**

Agrawal C., 2009. Performance Improvement Planning: Enhancing Water Services throught Performance Agreements. Washington, World Bank, 24 p. Water and Sanitation Program, Vol. 5

Associados for International Finance Corporation, 2013. *Manual for Performance-Based contracting by water utility companies in Brazil*. Washington, International Finance Corporation, 68 p.

Barouch G., 2010. La mise en œuvre de démarches qualité dans les services publics : une difficile transition. Politiques et Management Public, 27, pp 109-127.

Boag G., McDonald D., 2010. A Critical Review of Public-Public Partnership in Water Services. *Water Alternatives*, 3 (1), 25 p.

Canneva G., Guérin-Schneider L., 2012. La construction des indicateurs de performance des services d'eau en France : mesurer le développement durable? *Natures, Sciences et Sociétés*. 19 (3), 25 p.

Colon M., 2010. Les mécanismes d'incitation dans le secteur public africain : l'expérience du service public de l'eau dans les villes ougandaises. Mémoire Majeur de Master management des organisations et des politiques publiques, Paris, Ecole Des Mines, Paris X, Escp-Eap, Ecole Polytechnique, Ena, 156 p.

Colon M., Guérin-Schneider L., 2013. La diffusion du Nouveau Management Public dans les services d'eau potable des pays en développement, créatrice de valeurs publiques ? Le cas de l'Ouganda et du Cambodge. In : RIODD, *Congrès Réseau International de recherche sur les Organisations et le Développement Durable*, Lille, 18-21/06/2013. 15 p.

Colon M., 2013. Doctorante Gestion des opérateurs publics d'eau en Afrique et en Asie. Interviews les 31/10/2013 et 05/11/2013.

Eau de Paris, 2013. Rapport annuel 2012. Paris, Eau de Paris. 43 p.

Environmental Action Programme Task Force, 2011. Guidelines for performances-based contracts between water utilities and municipalities. Lessons Learnt from Eastern Europe, Causasus and Central Asia. Paris, OCDE, 112 p.

Fauquert G., 2007. Les déterminants du prix des services d'eau potable en délégation : contribution à la régulation locale des services publics de l'eau potable. Thèse de doctorat, Paris, Ecole Nationale du Génie Rural, des Eaux et Forêts, 406 p.

Grandgirard A., Barbier R., 2006. Les Observatoires de l'eau, des outils au service de l'évaluation. *Développement durable & territoires*, Dossier 8, 12 p.

Guérin-Schneider L., Nakhla M., 2003. Les indicateurs de performance: une évolution clef dans la gestion et la régulation des services d'eau et d'assainissement. *Flux*, 52, pp. 55-68.

Hall D., Lobina E., Corral V., Hoedeman O., Terhorst P., Pigeaon M., Kishimoto S., 2009. *Public-public partnerships in water.* Greenwich, Public Services International Research Unit, 18 p., Financing water and sanitation.

Hoedeman O., 2006. *Public Water for All : The role of Public-Public Partnership*. Bruxelles, Transational Institute and Corporate Europe Observatory, 20 p.

Hood C., 1995. The "new public management" in the 1980s: Variations on a theme. Accounting, *Organizations and Society, 20, pp. 93-109.* 

Koonan S., Sampat P., 2012. Delhi water supply reforms, Public-private partnerships or privatization. *Economic and Political weekly*, 47 (17), pp. 32-41.

Le Strat A., 2011. *Paris, Comment une collectivité peut reprendre en main la gestion de l'eau*. Disponible sur Internet : <a href="http://www.tni.org/sites/testing.tni.org/files/Paris%20Chapter%20by%20Anne%20Le%20Strat%20FR">http://www.tni.org/sites/testing.tni.org/files/Paris%20Chapter%20by%20Anne%20Le%20Strat%20FR</a> final.pdf, [Consulté le 15/11/2013].

Mairie de Paris, Eau de Paris, 2012. *Le Contrat d'Objectif du service public de l'eau de Paris*. Paris, Mairie de Paris, 108 p.

Mairie de Paris, Eau de Paris, 2012. Le service public de l'eau parisien : Offrir une eau de la meilleure qualité au meilleur coût. Paris, Mairie de Paris, 13 p.

Marin P., Mugabi J., Marino M., 2010. *Improving water services in a postconflict situation: The case of the management contract in Kosovo*. Washington, World Bank, 4 p. GridLines, Vol. 52.

Marino M., Stein J., Wulf F., 1998. *Management contracts and water Utilities, the case of Monagas in Venezuela*. Washington, World Bank, 4 p. Public Policy for the Private Sector, *Vol.* 166

Meyer M., Gupta V., 1994. The performance paradox. *Research in Organization behavior*, 16, pp. 309-369.

Mugabi J. 2009. *Water Operators Partnerships : Africa Utility Performance assessment.* Nairobi, The World Bank, 162 p. Water and Sanitation Program – Africa.

Mugisha S., 2013. Technical inefficiency effects in a stochastic production function for managerial incentives in public water utilities. Disponible sur internet <a href="http://warrington.ufl.edu/centers/purc/purcdocs/papers/1315\_Silver\_Technical\_Inefficiency\_Effects.pdf">http://warrington.ufl.edu/centers/purc/purcdocs/papers/1315\_Silver\_Technical\_Inefficiency\_Effects.pdf</a> , [Consulté le 09/12/2013].

Mugisha S., Berg S., Muhairwe W., 2005. Using Internal Incentive Contracts to Improve Water Utility Performance: The Case of Uganda's NWSC. *Water 21*, May, 15 p.

Mugisha S., Berg S., Skilling H., 2004. Practical Lessons for Performance Monitoring in Low-Income Countries: The Case of National Water and Sewerage Corporation, Uganda. *Water 21*, May, 7 p.

Mugisha S., Berg S., 2007. Turning around struggling state-owned enterprises in developing countries: The case of NWSC-Uganda.Ch. 2. In: Warwick H., Cann V., *Going public, southern solutions to global water crisis*. London, World Development Mouvement, pp. 15-25.

Mugisha S., Brown A., 2010. Patience and action pays: a comparative analysis of WSS reforms in three East African cities. *Water Policy*, 12, pp. 654-674.

National Water and Sewage Corporation, 2013. *Annual Report 2011-2012*. Kampala, National Water and Sewage Corporation, 152 p.

Observatoire Parisien de l'Eau, Mairie de Paris, 2012. Rencontre de l'Observatoire Parisien de l'Eau. Paris, Observatoire de l'Eau, 24 p. [Diffusé le 11/01/2012].

Observatoire Parisien de l'Eau, Mairie de Paris, Eau de Paris, 2012. Révision de Contrat d'Objectifs du service public de l'eau : Entre la Ville de Paris et la Régie Eau de Paris. Paris, Observatoire Parisien de l'Eau, 22 p. [Diffusé le 11/01/2012].

Schwartz K., 2007. The New Public Management: The future for reforms in the African water supply and sanitation sector? Delft, Institute for Water Education, 10 p.

Shirley M., Xu C. 1997. *Information, Incentives and Commitment : An Empirical analysis of Contracts between Government and state Enterprises*. Washington, The World Bank, 47 p.

Shirley M., 1998. Why Performance Contracts for State-Owned Enterprises haven't worked. *ViewPoint*, 150, 4 p.

Souquière M., 2012. *Transparence et contrôle de la gestion publique : la régie municipale « Eau de Paris » et son contrat d'objectif.* Disponible sur Internet : <a href="http://www.solutionsforwater.org/wp-content/upload/2012/01/Proposition-FME-EDP-solution-innovante.doc">http://www.solutionsforwater.org/wp-content/upload/2012/01/Proposition-FME-EDP-solution-innovante.doc</a>, [Consulté le 10/11/2013].

Sinaï A., 2013. L'eau à Paris : retour vers le public. Paris, Eau de Paris, 119 p.

The World Bank, 1995. Bureaucrats in business: The Economics and politics of Government Ownership. A World Bank Policy Report. Washington, The World Bank, 64 p.

Warwick H., Cann V., 2007. *Going public, southern solutions to global water crisis.* London, World Development Mouvement, 72 p.

#### **APPENDIX**

#### **APPENDIX 1: CHRONOLOGY OF NWSC STRATEGIC DOCUMENTS SINCE 1999**

Année financière	Contrats de performance entre le gouvernement et le NWSC	Plans d'entreprise du NWSC	Contrats internes de performance entre le Siège et les agences (hors Kampala)	Contrats internes de performance entre le Siège et l'agence de Kampala
2011- 2012	PC IV	Corporate Plan V 2009 - 2012	IDAMC III recondu	ctible un an
2010- 2011			IDAMC III 2 ans	
2009- 2010				
2008- 2009	PC III	Corporate Plan IV 2006 - 2009	IDAMC II 2 ans reconductible	e un an
2007- 2008				
2006- 2007				
2005- 2006	PC II	Corporate Plan III 2003 - 2006		: 30 juin 2006 004 pour toutes les
2004- 2005			agences, mars 2004 pour Ka déc. 2003 pou Mbarara, Masaka, Mbale	
2003- 2004			APC III Jany -Déc. 2003	OSUL (Jan. 2002 - Fev.
			JanvDec. 2003	2004)
2002- 2003	PC I	Corporate Plan II 2000 - 2003		
2001- 2002			APC II Dec 2001-nov	
2000- 2001			2001	Gauff / KRIP (Dec 1997 – Juin
1999-2000	-	Corporate Plan I 1998- 2000		2001)

Figure 10 : Summary of NWSC Corporates Plan and internal contracts

Source: Colon (2010) based on Muhairwe, 2009.

### APPENDIX 2: EXTRACT OF THE SECOND PERFORMANCE CONTRACT OF UGANDA (2003-2006): SUMMARY OF INDICATORS

			SUMMARY			Dealer		
SUMMARY		Performano	e Contract 1			Performance Contract 2		
Year Ending June,		2000	2001	2002	2003	2004	2005	200
Ushs in millions								
OPERATIONS		-	-	-	-			
UfW Sales per active	(%)	42%	43%	40%	39%	38%	37%	369
connection	(m3/day)	1.7	1.5	1.3	1.2	1.1	1.0	0.
Billing efficiency		58%	57%	60%	61%	62%	63%	649
Active Connections	(nos.)	43,312	48,960	57,127	69,173	82,986	96,158	110,31
Inactive Connections Total Water	(nos.)	15,482	17,144	17,670	17,999	16,607	15,782	14,41
Connections Overall collection	(nos.)	58,794 97%	66,104 110%	74,797 105%	87,172 100%	99,593	111,940	124,73
Efficiency Staff Employed	%	1,426		1,092	889	950	980	1039
Staff / 1000	(nos.)		1,213					1,01
connections	(nos.)	21	17	12	- 11	10	9	
Staff Reduction	(nos.)	213	121	203	(61)	(30)	(30)	(30
INCOME Annual Turnover	(Ushs)	25.839	29,279	34,052	37,628	38.524	40.883	42,87
Net Income	(Ushs)	(9,950)	(51,765)	6,030	(9,917)	(8,739)	(9,666)	(11,014
	(==)	(2,222)	(23,132)	-,	(-1)	(-17	(5,555)	(
CASH FLOW	(Haba)	(2.000)			4			
Net Cash Flow Cash Balance	(Ushs) (Ushs)	(3,993) 1,845	2,382 4,227	565 4,792	1,507 6.299	(1,427) 4,872	(2,005) 2,867	(415 2,45
Casii Dalalice	(USIIS)	1,040	4,221	4,132	6,233	4,012	2,067	2,40
CREDITOR - GoU Interests Outstanding								
bif	(Ushs)	9,020	14,198	21,236	30,788	41,831	52,874	63,91
Interest Due	(Ushs)	5,178	7,038	9,552	11,043	11,043	11,043	11,04
GoU Debt Swap	(Ushs)	0	0	0	0	0	0	
Total Interest Payment Interest Outstanding	(Ushs)	0	0	0	0	0	0	
c/f	(Ushs)	14,198	21,236	30,788	41,831	52,874	63,917	74,96
Principal Outstanding	(Ushs)	3,670	7,340	12,504	17,552	22,852	27,284	31,71
Principal Due	(Ushs)	3,670	5,164	5,048	5,300	4,432	4,432	4,43
GoU Debt Swap Total Principal	(Ushs)	0	0	0	0	0	0	
Payment .	(Ushs)	0	0	0	0	0	0	
Principal Outstanding c/f	(Ushs)	7,340	12,504	17,552	22,852	27,284	31,716	36,14
DEBTOR - GoU Arrears Outstanding		-						
bif	(Ushs)	12,613	11,138	13,426	13,581	10,106	10,223	8,61
Annual Increase	(Ushs)	1,482	1,459	405	957	358	362	36
GoU Settlement	(Ushs)	(3,278)	(2,000)	(2,000)	(1,217)	(5,732)	0	
GoU Debt Swap	(Ushs)	0	0	0	0	0	0	

Figure 11: Extract from the indicators summary of the second Ugandan PC (2003-2006)

Source: Extract the Second Performance Contract of Uganda (2003-2006), p 28.

### APPENDIX 3: INDICATORS FOLLOWED BY VILLE DE PARIS FOR ITS PROVIDER EAU DE PARIS

The table below synthetically shows the Performance Contract between Eau de Paris and the Ville de Paris.

It is interesting to note that a significant number of PIs are defined by ONEMA. They are followed for all water services in France in the Rapports sur la Qualité et le Prix du Service.

	Number of indicators (in parenthesis	Indicator with regulatory
Objectives	those from the revision of 2012)	definition made by ONEMA
Obj 1 : Ensure water quality in all	4 (2 added indicators)	3/4
circumstances		
Obj 2 : Place the user at the heart of the	5 (1 added indicator)	1/5
water service		
Obj 3 : Ensure a rigorous and	6 (2 added indicators)	2/6
transparent management		
Obj 4 : Ensure access to water	1 (1 added indicator)	1/2
Obj 5: Ensure network performance and	3 (2 added indicators)	1/3
facilities		
Obj 6 : Maintain a high level of	6	4/6
maintenance and enhancement of		
heritage		
Obj 7 : Develop a sustainable vision of	1	0
water supply system		
Obj 8 : Social commitment	7 (2 added indicators)	0
Obj 9 : Implement a certified	4	0
management system and an		
environmentally responsible one		
Obj 10 : Accompanying changes in the	1	0
non-potable water service		

Figure 12: The objectives and performance indicators of the contract between Eau de Paris and the Ville de Paris (author's own figure creation)

### APPENDIX 4: TARGETED PERFORMANCE AND EFFECTS INDUCED BY THE PERFORMANCE MEASUREMENT

This appendix details the effects of the implementation of the indicators. We begin with an example of the perverse effects in the Ugandan case where the values of public services have been neglected during the early years.

Initially the PIs were rather financial and business to follow operating profits. The strategy of the company was then to "produce more to sell more". The typical values of the private sector. these priorities are detrimental to the values of the organizing authority, eg equity between the users, the management of natural resources, support the poor employees or heritage preservation in the long run (Colon and Guérin-Schneider, 2013).

Gradually, the perverse effects begin to be felt: heritage deteriorates, inadequate measures for access to water in the slums, inflation of the water price, degradation of water surfaces by a lack of sanitation, engineers' demotivation. The organizing authority has been slow to answer to these perverse effects. In 2006, the Ministry of Water reclaims a PC negotiation. This is the premise of creating a regulator competence, resulting in 2010. This helped to integrate into 2009 a PC, the first PIs with social and environmental dimension. During the revision of 2012, the Ministry also includes a monitoring tool in the long-term asset management.

# APPENDIX 5: IMPROVING NWSC PERFORMANCE OF THE MONITORING INDICATORS (COMPARISON BETWEEN THE FIRST PROGRAM MANAGEMENT AND THE 4TH PERFORMANCE CONTRACT)

Source: Extract p. 6 of Mugisha S., 2013.

Perfor	mance Indicator	1998	2010
1.	Service Coverage	48%	74%
2.	Total Connections	50,826	261,000
3.	New Connections per	3,317	25,000
4.	year Staff per 1000 Connections	36	6
5.	Collection Efficiency	65%	98%
6.	NRW	60% (Kampala ~ 65%; others ~ 57%)	33.2% (Kampala: ~36%; other towns ~15%)
7.	Proportion Metered Accounts	65%	99.6 %
8.	Annual Turnover	10	65
9.	(million USD) Profit (Before. Dep) (Millions USD)	4.0 (loss)	12.5 (Surplus)

Figure 13: The changes tracked and recorded by the monitoring mechanisms set up by the PC.

Source: Colon and Guérin-Schneider, 2013.

	NW	SC	Valeurs recom- mandées par la Banque Mondiale
INDICATEURS	1995	2010	
Nombre de villes desservies	9	23	
Population desservie	882 173	2 760 000	
Taux de desserte	22%	74%	100%
Nombre de branchements d'eau	41 522	246 259	
Nombre d'employés	1 755	1 589	
Employés / 1000 branchements	42	6	<5
Qualité de l'eau distribuée	-	99% OMS	OMS
Durée d'alimentation h/j	-	-	24
Pourcentage d'eau ne générant pas de revenu (en volume)	68%	33%	<23%
Taux de recouvrement des factures	32%	96%	
Charges d'exploitation / Recettes d'exploitation	-	76%	<68%
Prix moyen de l'eau au m <sup>3</sup>		0,45	
Jours d'arriérés de paiement		134	<90

Figure 14: The changes tracked and recorded by the monitoring mechanisms set up by the PC.

#### APPENDIX 6: TABLE OF RESULT INDICATORS OF THE EDP CONTRACT.

Source: Extract of Eau de Paris Activity Report 2012. P. 75-76.

Principaux in dicateurs du contrat d'objectifs	Valeur 2 01.1	Valeur 2012	Valeur du contrat d'objectifs révisé avec cible à 2014, applicable à compter de 2012	Principaux in dicateurs du contrat d'objectifs	Vale ur 2 011	Valeur 2012	Valeur du contrat d'objectifs révisé avec cible à 2014, applicable à compter de 2012
GARANTIR UN APP	GARANTIR UN APPROVISIONNEMENT EN EAU DE QUALITÉ, EN TOUTE CIRCONSTANCE	EAU DE QUALITÉ, EN TO	UTE CIRCONSTANCE	Toux de satisfaction des usagers	1	Abonnés 78%	> 80 %
% des eaux souterraines dans	56%	51%	Entre 45 % et 55 %	et des abonnés		Usagers 92 % Moyenne 86,6 %	
CIP TO DE LA CONTROL DE LA CON				Taux de fréquentation du Pavillon de l'eau	,	+ 19 %	+ 10 % par an
Etat d'avancement de findice de protection de la ressource	63,7%	8,52,8		VSSN	URER UNE GESTION RI	ASSURER UNE GESTION RIGOUREUSE ET TRANSPARENTE	RENTE
– Indicateur P. 108-3" Taux de conformité des prélèvements réalisés dans le cadre du contrôle sanitaire	99,6%	54 %en non ponderé 99,9 %	GPX en non pondere (54 % en non pendere (80 % à lin 2012 / 100% à lin 2014 29,6% ≥ 99,9%	Rapport entre les dépenses réelles de fonctionnement et le produit des ventes d'eau, hors taxes et redevances	72%	ž	×80%
- microbiologie P 101.1  Taux de conformité des prélèvements réalisés dans le cadre du contrôle sanitaire	100%	% 2'66	% S 000 ≈	Évolution des charges de personnel entre Tannée n et Tannée n.1. à partir de 2012	ı	4,5 % Dont 1,42 % au titre du G/T	N N
– physico chimie P 102.1"				Durée d'extinction de la dette P 153.2"	0,82	0,97	<5 ans
e i	PLACER LUSAGER AU CŒUR DU SERVICE DE L'EAU	TEUR DU SERVICE DE L'A	EAU	Town de recouvrement des factures d'au	2000	200	× 88 ×
Détal moyen de réponse aux demandes écrites des abonnés et usagers	2,2	2,2	s 5 jours ouvrés	dans un débi de 50 jours à compter de la date d'émission de la facture	200	2	P 00 0
eime en jours j				Taux d'autolinancement	1	85%	> 50 % et cible 60 %>x> 80 %
Taux de prise en charge des appels téléphoniques	91,1%	92,4%	Seuil > 90 % > 95 % en 2014	Buck d'impayé sur les factures d'eau de l'année nejetalement P. 1524. CP	0,3% au 31	0,25%	< 0,2 %
Taux de respect du défaimaximal d'ouverture des branchements pour	100 %	100 %	2 99,5 % en 2014		GARANTIR	GARANTIR L'ACCÈS À L'EAU	
ies nouveaux abon nés P 152.1*				Montant des abandons de créances ou des versements à un fends de solidanté on £ /m² P 109.0°	0,0020 £/m²	0,0029€/m²	≥ deux fois le montant du seuil
				Succ de fontaines et points d'eau accessibles en permanence au public : - en période nors-gel	00:	136 (+4,6%)	+ 2 points de % par an et pour 2012 > à 2011

Figure 15 : Summary of results indicators. Extract from Activity Report 2012 Eau de Paris.

Principaux indicateurs du contrat d'objectifs	Valeur 2011	Vale ur 2 012	Valeur du contrat d'objectifs révisé avec cible à 2014, applicable à compter de 2012	Principaux in dicateurs du contrat d'objectifs	Valeur 2 01.1	Valeur 2012	Valeur du contrat d'obje cible à 2014, applicable	visé avec ter de 2012
ASSURER	LA PERFORMANCE D	ASSURER LA PERFORMANCE DU RÉSEAU ET DES INSTALLATIONS	TALLATIONS	DÉVELOPPER UN	DÉVELOPPER UN EVISION PROSPECTIVE DU SYSTÈME D'ALIMENTATION EN EAU	E DU SYSTÈME D'ALIME	ENTATION EN EAU	
Durée cumulée des incidents de pression	493 mn	419mn	< 700 m n et cible à - 2 points de % par an	Rapport entre le budget consacré aux	0,54%	%92'0	≥0,6%	
Nombre d'heures par nombre d'abonnés	331	833	235 h partrimestre soit 940 par an	activités de recherche et le produit des ventes d'eau, horstaxes et redevances				
3				OFFRIR	OFFRIR UN MODÈLE D'ENTREPRISE SOCIALEMENT AVANCÉE	PRISE SOCIALEMENT A	VANCÉE	
Taux d'occurrence des interruptions	0,22	0,37	< 0,40	Taux de fem me s dans la population globale	31%	32%	+1% par an et cible à 33	
TTC 1655 DTT				Taux de femmes dans la population cadre	39,7 %	38,6 %	+1% par an et cible à 39	
MAINTENIR UN HA	AUT NIVEAU D'ENTRE.	MAINTENIK UN HAUT NIVEAU D'ENTRETIEN ET DE VALORISATION DU PAIRIMOINE	ION DU PAIRIMOINE	Taux de femmes dans la population TAM	32,4%	32,3%	+1% par an et cible à 34	
Indice de connaissance et de gestion patrimoniale du réseau d'eau potable	32%	100%	2 95 % (2012) 100 % (2014)	Taux de travailleurs handicapés	3,1%	3,0%	+ 1% par an sur seuil 20	
		1		Montant consacré à la formation, exprimé en pour rentant que la masse et alariale	4,5 %	N. E.	Entre 3% et 5%	
nenerment ou reseau deau potable P 104.3* (transport et distribution)	R C TD	8° 0° 20	renderient 2011 et cible a 92 % sur indicateur DNEMA	Taux d'évolution des femmes vers Fennadeement et TAM/taux d'évolution		9'0	Entre 0,8 et 1,2 et 1 en	
Indice linéaire des pertes d'eau en réseau	21,4 m²/km/j	19,5 m²/km/j	<2011	des hom mes				
		9		Taux d'agents ayant suivi au moins une		30%	90% en intermédiaire et	in cible
Taux moyen de renouvellement du réseau d'eau potable P 107.2"	0,24 (valeur provisoire	0,48 (valeurprovisoire	>0,5% et cible 2014> 0,8% Calcul sur 5 ans	action de formation au cours des deux années écoulées				
	calculée sur deux ans)	calculée sur un an)		METTRE EN ŒUVRE UN SYSTÈME DE MANAGEMENT CERTIFIÉ ET ÉCOLOGIQUEMENT RESPONSABI	STÈME DE MANAGEME	NT CERTIFIÉ ET É COLO	GIQUEMENT RESPONSABI	
Àge moyen du parc des compteurs [fâge limite des compteurs étant fixé à 14 ans]	6,6 ans	7,1 ans	6,5ans	Emission de gază effet de serre du système d'alimentation en eau (tonnes de CD? par m² d'eau potable produit)	0,00017	2,000,0	— 3,6 % paran à la cible	
Taux de réalisation du programme d'inve stissement prévu par le budget primnit de l'exercice précédent	49,7 %	20 20 20 20	≥ 90 % à la cible	Consommation électrique de l'ensemble des installations {KWH/m² d'eau potable produk}	Etudes en cours sur les installations EDP	Donnée en cours de consolidation	— 2 % par an à la cible	
				Taux de fréquence des accidents du travail affectant le personnel d'Eau de Paris	15,4	13,6	<20 et à la cible <17	
				Taux de gravité des accidents du travail affectant le personnei d'Eau de Paris	0,22	9'0	<1 et à la cible <0,7	
				ACCOMPAG	ACCOMPAGNER LES ÉVOLUTIONS DU SERVICE D'EAU NON POTABLE	DU SERVICE D'EAU NO	N POTABLE	
				Taux de disponibilité des bouches de lavage			>95%	
				"Cestratoreur sont été déjnis par l'OVEMAdans le cadre de la création de l'Observairire sur les performances des servi et d'accepté comment et ja de norme tre la cros statistica dura hace de drandes-bormaches naux la cron manifent de la perform	lans le cadre de la créati	on de l'Observatoire sur l	es performances des servi	licsdeau

Figure 16 : Summary of results indicators. Extract from the Activity Report 2012 Eau de Paris.



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