

## PPP – policies, practices and problems in Ghana’s urban water supply

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### Abstract

Since the beginning of the 1990s, comprehensive reforms of the Ghanaian water sector were initiated by the Bretton Woods Institutions. The Government of Ghana was obliged to restructure the sector by establishing regulatory bodies, opening the sector to private sector participation and separating responsibilities for urban water supply from rural water supply. The parastatal Ghana Water Company Limited (GWCL) was created to be solely in charge of urban water supply. In spite of external assistance, GWCL continued to suffer from massive financial, managerial and technical problems. The gap between supply and demand increased while demand for potable water in the cities was on the rise and the supply systems were degenerating.

In order to introduce greater efficiency, two options for public–private partnerships (PPP) were developed and contested, over a period of 10 years. At first private companies were invited to take over the GWCL by a lease contract. Numerous factors, among them a massive anti-privatisation campaign and global economic trends unfavourable to private investment, particularly in the water sector, caused a comprehensive revision of the policy and the modification of the PPP programme from lease to short-term management contract with an ensuing *affermage* concession in 2004. This process was to be supported by external donor agencies substantially upgrading the water supply infrastructure. However, it seemed doubtful if the recent policy would lead to a sustainable system of urban water supply and substantial improvements in the supply situation of the poor. Patronage relations were not sufficiently addressed and alternative PPP options based on local potential had not been considered. The case of Ghana raises issues of imposed PPP policies that are not based on adequate information about local, national and international framework conditions.

*Keywords:* Drinking water supply; Ghana; Ghana Water Company Ltd.; Governance; Institutions; Privatization; Public-private partnership; Public sector partnership; Urban water; Water sector reform

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## 1. Introduction: the debate on PPP policies in Africa's urban centres

“Water privatization is a big issue in many African countries. Investors say it brings efficiency. Opponents say it hurts the poor” (Akande, 2002). In sub-Saharan Africa the provision of potable water has been a central government not a local responsibility, in contrast to the situation in, for example, Latin America. The public bodies operating water supply infrastructure have been found to be inefficient, to lack capacity to deliver an appropriate level of service and to be unable to respond to increasing growth in demand through rapid urbanisation. They have typically suffered from financial weakness and inadequately large numbers of employees. Public systems of water provision have been characterised by high leakage rates, widespread illegal connections, poor billing and weak cost recovery. Poor people have borne disproportionate shares of the negative impact. As in areas outside networks, where groups with low income do have access to a network, the installation has to be shared among many consumers and dependence on private water vendors charging high rates has been high.

As a strategy to improve the development of sustainable and efficient water supply systems, the involvement of the private sector in partnership with government has been increasingly advocated since the beginning of the 1990s. In exchange for loan guarantees, international financing institutions like the World Bank Group and Agencies of the United Nations have required indebted countries to subject national service institutions to public–private partnerships (PPP<sup>1</sup>) in the framework of structural adjustment programmes (Green, 2003; Lobina & Hall, 2003; Sohail & Cotton, 2004).

Emerging evidence about the outcomes of ensuing PPPs has called the policies involved into question. PPP has often been linked to the objective of full cost recovery, i.e. removing public subsidies for water supply and increasing consumer fees or tariffs until they cover the full costs of operation, maintenance and even extension of the water utility. Accordingly, PPPs have variously been criticised on the grounds of poverty aggravation. Non-governmental organisations (NGOs) and trade unions have contested such partnerships, maintaining that access to clean water is considered to be a right and a social good which should not be a tradable commodity subject to price competition. Consequent resistance has been recognised as an important factor in the failure of private investment in a number of countries (Hall *et al.*, 2005). The implementation of PPPs in developing countries has further been criticised, in the pre-contract stages, on account of agreements structured in favour of the contractor, of the neglect of the interests and representation of the poor, the overemphasis on technical and financial issues, misconceptions about the potential consequences of competition in the public sector and the lack of a base of information about low income groups, often caused by time constraints (Green, 2003; Hukka & Katko, 2003; Sohail & Cotton, 2004). Institutional frameworks for PPPs have reportedly been weak and ambiguous, entailing confusion about responsibilities for investment and maintenance, information asymmetries between regulator, government and operator and involving powerless and corrupt governments and regulators<sup>2</sup>. Multilateral

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<sup>1</sup> Here the terms public–private partnership (PPP) and private sector participation (PSP) are used synonymously. The term *privatisation* may mean different things in different connections. Here it is suggested that it be used only in case of full privatisation, i.e. when the assets are sold to the private sector. The term PPP is used when referring to various contract operations such as build–operate–transfer (BOT) contract, concession, lease, management or service contracts (cf. Hukka & Katko, 2003: 19).

<sup>2</sup> The case of Guinea tells how an asymmetry of information and the absence of a regulator can even entail an *overvaluation* of water tariffs (Bayliss, 2001; Lobina & Hall, 2003). Further evidence from Guinea suggests that in a political environment characterised by weak institutions, commercial losses rise as increases in tariff entail more defaults on bills and stronger incentives for illegal connections (Brook Cowen, 1999).

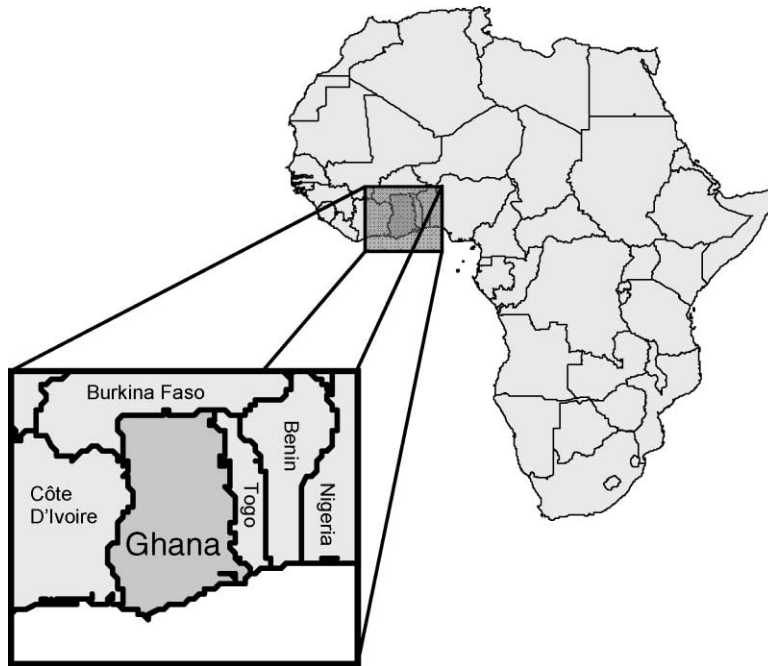


Fig. 1. Ghana in Africa (adapted, Haffner).

agencies have been blamed for insisting on the promotion of a “one-size-fits-all model” instead of opening up in favour of a wide range of policy options (Lobina & Hall, 2003: 34; Hukka & Katko, 2003).

Over the past 15 years, a number of sub-Saharan countries have completed the establishment of PPPs in water supply, typically by lease contracts. In all cases, one entity has been given exclusive rights to operate the citywide piped water network and ownership is dominated by a large international corporation (Bayliss, 2001; Collignon & Vézina, 2000; Lobina & Hall, 2003). The Republic of Ghana (Figure 1) is one of the countries where private sector involvement in urban water services has also been promoted, although the PPP process has been pending for a number of reasons. This paper traces how foreign interventions have shaped the sector of urban water supply in Ghana, including the history of structural reforms. The case of Ghana’s water supply flaunts the typical constraints of public sector utilities, but it also exhibits some peculiarities. Obviously, not only reforms of the public sector in terms of its roles and relationship to the private sector are at issue, but also the role of customers and civil society groups, international relations and informal political relationships among the actors/stakeholders. In agreement with Lobina & Hall (2003) we argue that any discrepancy between practice and policy:

“... is best understood by analysing PSP as a dynamic process, with interaction among different actors pursuing different objectives. The most important factor driving outcomes appears to be continual profit-seeking and risk-avoiding behaviour of international water companies, in interaction with local and national governments (pursuing mixed political and fiscal goals), political community movements and international donors and institutions pursuing their own goals.” (Lobina & Hall, 2003: 3–4)

However, we would like to add that these “collective actors” are by no means homogeneous entities, they are also marked by internal conflicts of interest. The results presented are based on deskwork and

qualitative interviews conducted during repeated layovers in Accra in the framework of the German GLOWA Volta Project<sup>3</sup> between March 2003 and February 2005<sup>4</sup>.

## 2. Urban water supply in Ghana: a history of foreign interventions

The system of Ghana's urban water supply dates back to the colonial period. Since the institution of a formal government in the 19th century, pumps, artificial reservoirs and piped water supply systems had been introduced in the industrial enclaves, cities and settlements where the British colonists resided. After independence, in 1958, the Ministry of Works and Housing (MWH) established a Water Supply Division in charge of providing drinking water for the rural and urban areas. After a severe water shortage in 1959 the World Health Organisation recommended that the Government of Ghana (GoG) should create an effective institution like a corporation. In 1965, the Water Supply Division was transformed into the Ghana Water and Sewerage Corporation (GWSC) to manage the existing water supply systems, including the rural point supply sources, most of which were equipped with hand pumps by foreign aid agencies. The GWSC was also in charge of the establishment, operation and control of the sewerage systems (MWH & CWSA, 2004; GWCL, 2004a). Supported by international donor agencies, the GoG has attempted to improve the viability of the urban water sub-sector since the 1970s. In addition to the rehabilitation and expansion of facilities, structural adjustments were also introduced into the water sector by the World Bank/International Monetary Fund (IMF).

In the framework of the Economic Recovery Programme (1983–1993), government subsidies on the prices of goods and services were removed. Reforms were aimed at effecting the full or partial recovery of costs on social services, the promotion of market forces to determine the prices of goods and services, the divestiture of the state from the production and distribution of goods and services and generally to promote the private sector as the engine growth of the economy (GoG & MWH, 1999). In 1987 the World Bank became directly involved in the water sector. A Five Year Rehabilitation and Development Project (1990–1995) was prepared, which culminated in the Water Sector Rehabilitation Project (WSRP, 1995–97). A programme of rehabilitation and expansion for regional and district capital systems and improvement in commercial, financial, personnel and project management was initiated. Efforts at institutional reform included the restructuring of the GWSC, which aimed at decentralising decision making and devolving authorities to the regions to enable it to upgrade its commercial operations, improve conditions of service, eliminate redundant staff and recruit key professional staff. The GoG was to withdraw subsidies from the corporation and to increase tariffs to guarantee operation and maintenance and partly to finance the capital cost of rehabilitation, expansion and new projects. The World Bank and other international donor agencies<sup>5</sup> provided loans and grants amounting to about

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<sup>3</sup> See <http://www.glowa-volta.de>. The research activities of the GLOWA Volta Project were generously funded by the German Federal Ministry of Education and Research and by the Ministry of Culture and Education of Northrhine Westphalia. The subproject "Institutional Analysis" received additional support by the Department of Political and Cultural Change, Centre for Development Research, University of Bonn, Germany. Our sincere gratitude is owed to these institutions.

<sup>4</sup> At that time the "privatisation" of the public operator was a "hot" political issue and access to information was difficult at times. Therefore, notwithstanding our efforts at cross-checking information, some of the results presented here may be unbalanced and/or incomplete.

<sup>5</sup> Credits and grants were obtained from the African Development Bank, Canadian International Development Agency (CIDA), Kreditanstalt für Wiederaufbau (KfW – Germany), Department for International Development (DFID – Great Britain), Overseas Economic Co-operation Fund (OECD – Japan) and others.

US\$125 million, with a contribution by the GWSC of US\$15 million (Nii Consult, 2003; Water Sector Restructuring Secretariat, 2002)<sup>6</sup>.

Notwithstanding the support from international donor organisations since the 1970s and in spite of the achievements of the Water Sector Rehabilitation Project, the distribution network could not keep pace with the rapid spread of the cities<sup>7</sup>. The GWSC continually suffered from the problems typical of public utility providers (see below). Supply under the auspices of the GWSC remained notoriously insufficient, with unaccounted-for water constantly remaining at about 50%. The percentage of the urban population that was supplied with potable water was reported to have even dropped from 76% in 1992 to 59%<sup>8</sup> in 2002. At the beginning of the millennium, 78% of the urban poor were reported not to have any regular access to piped water. Between 1970 and 1990 one-third of the facilities had broken down and the rest operated below design capacity. In addition, neither the government-subsidised operations nor consumer tariffs were based on the costs of maintenance and spare parts replacement (Nii Consult, 2003; Water Sector Restructuring Secretariat, 2002). Willingness to pay was reported to have been low, an attitude still aggravated by frequent breakdowns, poor service and maintenance of facilities by the GWSC.

The situation of water supply in urban areas was perceived as a grave constraint to Ghana's vision of becoming a middle income country by the year 2020, a vision that involved significant investment by foreign companies. The low level of service affected commerce and industry negatively and made investment in the country unattractive. The main industries affected were the breweries, food processing, pharmaceutical industries, textile industries and those in the hotels and hospitality business (Nii Consult, 2003; Water Sector Restructuring Secretariat, 2002).

In addition to the rehabilitation programme, further reforms were initiated by the World Bank/IMF, intending to create favourable conditions for increased private sector participation, to improve efficiency in the development and management of the water supply facilities and thus attract more capital investment to the sector. Small utilities do not offer opportunities for exploiting economies of scale and are generally unattractive to the private sector (World Bank, 1997). Correspondingly, reforms included the institutional separation of the small urban and rural operations from the urban operations, which were to be privatised. There were about 210 urban water supply systems based on surface and groundwater sources. The water supply systems of small towns (with less than 20,000 inhabitants) were to be transferred to community ownership. A Community Water and Sanitation Division (CWSD) was set up within the GWSC in 1994. The CWSD was to implement the new policy in the framework of the National Community Water and Sanitation Programme, which had been designed by the GoG with World Bank and some NGO assistance in 1993.

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<sup>6</sup> The GWSC received management training, workshop tools and equipment, more than 200 cross-country vehicles, lab equipment, replacement parts, a consumer inventory to facilitate revenue collection, over 100,000 metres and leakage detection programmes. The financial section was computerised and a customer study was conducted to detect illegal connections. Over 100 water supply systems were rehabilitated and expanded with the intention of restoring the systems to their original design capacities.

<sup>7</sup> In the capital city of Accra 30% of residents enjoyed a 24 hour supply; 30% received supplies 12 hours/day five days a week; 25% received supplies for two days in an week and the remaining 15%, on the outskirts of town, had a supply once a week or none at all (Nii Consult, 2003).

<sup>8</sup> Official statistics from the years from 1999 to 2004 vary with regard to estimates about urban water supply coverage between 59% and 70%. Such statistics are often produced under political pressure and they need to be treated cautiously. One informant from a regional headquarters of the GWCL conceded that the organisation could not provide any coverage figures owing to a lack of reliable population figures – “We do estimates, but they may not be very authentic”.

Comprehensive Water Resources Management studies were conducted between 1996 and 1998, as commissioned by a consortium of donor agencies and the GoG. Its objectives were to promote and facilitate cross-sectoral management of water resources and to develop a water resources management strategy that would inform national policy and investment in the water sector. By an Act of Parliament the CWSD was separated from the GWSC and turned into the Community Water and Sanitation Agency (CWSA) under the umbrella of the Ministry of Works and Housing (MWH) in 1999. The CWSA was to facilitate the rehabilitation, construction, operation and maintenance of the water supply systems by rural and small urban communities on the basis of a demand-driven approach (cf. Fuest, 2006). In turn, the GWSC was converted into a limited liability company Ghana Water Company Limited (GWCL), which started operations in 1999. The mandate of GWCL included the production of water at various corporate head-works/treatment plants, the transmission of water by pumps to reservoir and/overhead tanks over varying distances and the distribution of water to customers through smaller pipelines (GWCL, 2004a). Unlike its predecessor, the GWCL was free to concentrate on the core business of water production, distribution and conservation for urban domestic, public and industrial uses and was relieved from other functions such as water resources planning, sewerage, pollution control and determination of the quality of drinking water (Nii Consult, 2003).

The regulation of tariffs for potable water and other services was shifted away from the government to the Public Utilities Regulatory Commission (PURC), which was established in 1997 with the mandate to examine and approve water and electric rates, monitor the utilities and enforce standards of performance. It was charged with setting water quality standards according to the Ghana Standards Board, to ensure the protection of consumer interests, while maintaining the balance between tariff levels and investment, operation and maintenance costs of the utility services (GoG & MWH, 1999: 15). In the design of its creators, the PURC was meant to be an independent institution.

In 1997 the Water Sector Restructuring Secretariat was established to guide the urban PPP process; in 2002 it was replaced by a Project Management Unit. In 1998 a Water Resources Commission (WRC) was founded, under the auspices of the Ministry of Works and Housing (MWH), to introduce fees for raw water abstractions by large consumers, to ensure an efficient monitoring, coordination and planning of the country's water resources, to develop a national policy and to enforce its regulations according to the law. An overview of historical and present actors and institutions is shown in Figure 2.

### 3. PPP options and policies

The PPP options under consideration and actually practised in the history of Ghana's water sector are the following:

- Service contract: specific tasks are contracted to a private enterprise for a fee, while the overall utility management remains with the public sector.
- Management contract: a private firm is paid a fee to operate the water facility while the public ownership of assets, public quality and price regulation remains with the government, viz. the community. The firm may appoint key persons to particular positions. The manager assumes no responsibility for capital expenditure; the commercial risks are borne by the owners.

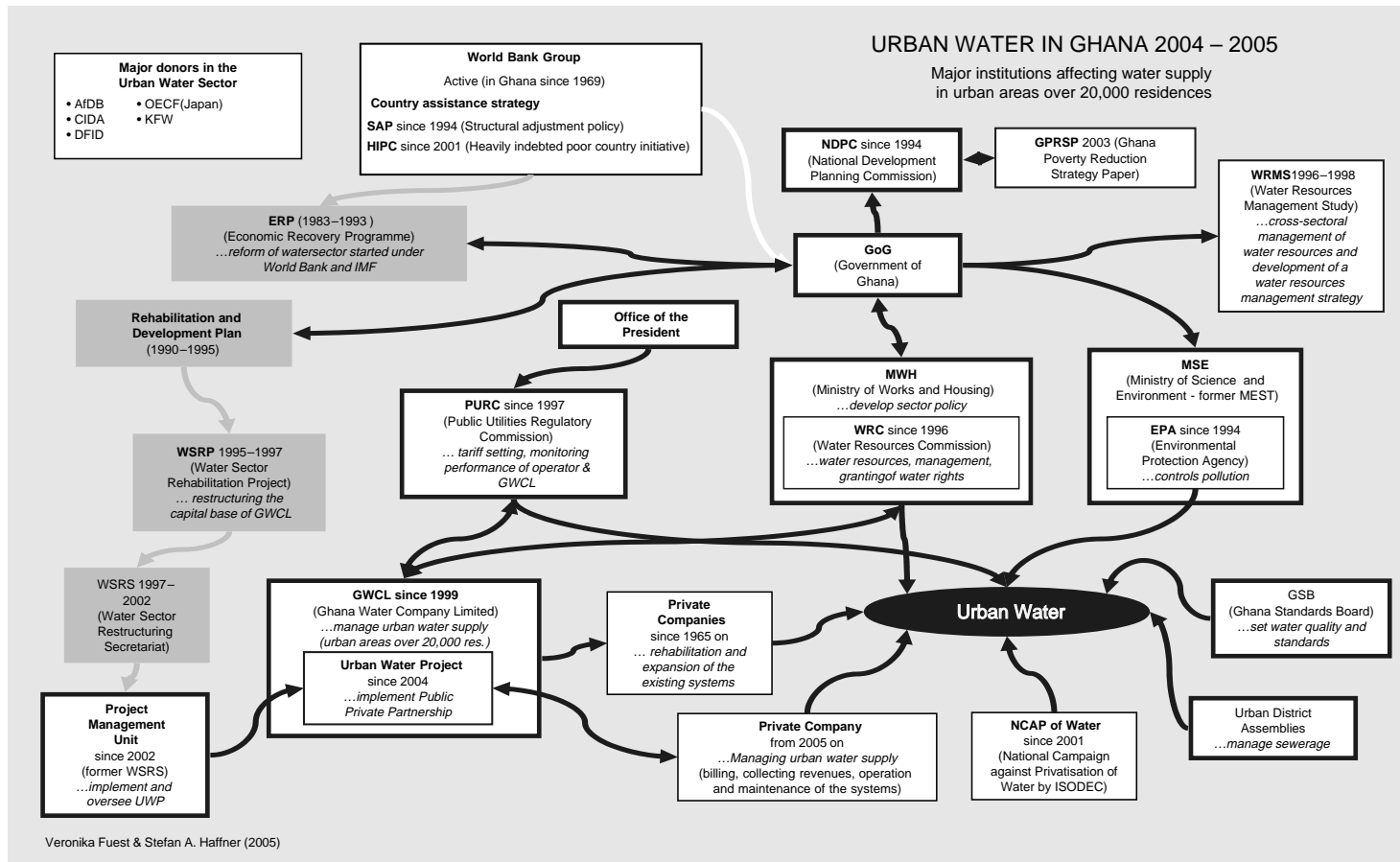


Fig. 2. Overview of actors and institutions.

- An extension of the management contract is the *affermage* or system concession. This involves the award of a concession to a private enterprise to run a system. It differs from the management contract insofar as the concessionaire receives all the revenue and costs of the operation, and usually involves a greater degree of freedom for the managers to determine the commercial strategy.
- Leasing contract: water assets are leased by the (public) owners to a private firm for operation and maintenance in return for the right to keep a portion of the revenue. Capital investments remain the responsibility of the community; the firm assumes some financial risk by providing the working capital in addition to the commercial risk.
- Build–Own–Operate (BOO) contract: a private firm develops, finances and operates the water facility in perpetuity. Examples at the micro-level are entrepreneurs who have sunk boreholes and sell water to the public.
- Under the variant Build–Own–Operate–Transfer (BOOT) the facilities are later transferred to the public. System concessions, leases and BOOTs are usually for long terms, i.e. beyond 5 years (Sarpong Manu, 2001; World Bank, 1997, 2004b, 2005).

Service contracts and a few management contracts were implemented in the supply services of rural communities (GoG & MWH, 1999). The role of domestic private entrepreneurs in the operation of the urban systems was characterised as being informal and *ad hoc*, restricted to a few services like transportation by tanker and revenue collection. In most cases the services were not covered by effective agreements, which made any regulation difficult (Water Sector Restructuring Secretariat, 2002).

Improvement of the urban water sector by means of a lease contract had been envisaged since 1994. In 1994/95 foreign consultants had been commissioned by the World Bank to deliberate on several combinations of PPP contract options (Halcrow & Partners, 1995). After “stakeholder consultations” a “consensus” was reached in 1995 to adopt the lease option (MWH, 1999). A review of the organisational framework of GWSC aimed to strengthen management at the top level and the regional level, thereby giving more autonomy to the regions. Two lease packages, designed to promote competition in urban water supply, were opened for bids in 1999. The conversion of the GWSC, including a programme of staff rationalisation, was expected to be completed in 2000 (IMF, 1999).

A business framework was prepared for lease contracts. The urban water systems – approximately 100 – then still managed by the GWCL, were to be reduced to approximately 74 systems across the country; they were to be leased to two private sector water companies (Business Units A and B<sup>9</sup>). A self-sustainable tariff should cover the operation and maintenance of the system, investment for the rehabilitation and renewal of the distribution, investment in infrastructural development and return on capital employed. The private sector company leasing each business unit was going to be responsible for operation and management and was supposed to invest US\$70 million for rehabilitation, renewal and improvement of the water systems. The private sector companies would not be responsible for the extension of the systems. The GWCL would be in charge of securing the financing and executing the needed extensions to the water systems.

The pre-qualified bidders were at this time major trans-national corporations including Vivendi, Suez, Bi-water, Saur and others (International Fact-Finding Mission, 2002). The World Bank’s Country

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<sup>9</sup> Business unit 1: Accra-Tema Municipal Assemblies, Volta, Northern Upper, East and Upper West Regions and business unit 2: Ashanti, Brong Ahafo, Western, Central and Eastern Regions.

Assistance Strategy marked private sector involvement in the provision, operation and management of public and social infrastructure as a key institutional reform in Ghana and the adoption of this PPP was to increase the levels of World Bank financing in the water and other sectors (Amenga-Etego, 2003). The PPP policies were also influenced by the decision of the IMF and World Bank to grant Ghana entry into the Heavily Indebted Poor Country (HIPC) initiative. Eligibility for this debt relief programme required three years of compliance with macroeconomic and structural adjustment policies. One of the conditions attached to the tranche of Ghana's IMF loan from the Poverty Reduction and Growth Facility required that the PURC implement automatic tariff adjustment mechanisms to achieve full cost recovery, i.e. raising prices in response to external factors beyond their control such as inflation, fluctuation of exchange rates and world market crude oil price increases.

Increasing water tariffs had been envisaged since the 1980s in order to tackle the financial problems of the GWSC/GWCL. The bar charts in Figure 3 illustrate the developments.

The PURC was supposed to link tariff rises to the providers' compliance with performance targets. Since 2002 water prices for domestic consumption increased considerably for all consumer categories. The GWCL was to charge different rates according to the following service categories: metered domestic (up to 20,000 litres/over 20,000 litres), commercial/industrial, public institutions/government departments, flat-rates per house per month for un-metered premises as well as for boreholes, wells and hand pumps, premises without connection (public stand pipes) per 1,000 litres, and reconnection fees for domestic and commercial consumers (PURC, 2002) (see Figure 4). Enterprises were charged a higher price for water, thus in theory there was some cross-subsidisation of domestic consumption (PURC, 2002).

In 1998/99 consultations had been held with various stakeholders including GWCL staff, donor agencies, ministries, department and agencies, the private sector and NGOs. Public decision-makers maintained that the idea of the PPP was at that time accepted by all of them. This was, however, challenged by civil society organisations. In 2001 the NGO Integrated Social Development Centre (ISODEC) initiated an anti-PPP campaign. In the same year a Coalition Against the Privatisation of Water in Ghana was formed by the Trade Union Congress, ISODEC and the NGO Third World Network Africa to oppose the official plan of leasing the urban water supply systems. Public resistance was based on the fear of further water tariff increases, staff dismissals from the GWCL and the notion that the provision of an essential good such as water should not be at the discretion of private enterprises.

Some further factors caused delays for the PPP process. In 2000 irregular procedures of the MWH in introducing a BOOT project north of Accra conjured up sharp differences between the GoG and the World Bank<sup>10</sup>. The differences between the government and donors were resolved in 2001. However, the PPP process was considerably delayed<sup>11</sup>. By 2004 the target number of 74 urban systems, which were, originally, to be divided into two business units, had still not been reached. Apparently, the National Community Water and Sanitation Programme had not yet facilitated the transfer of the remaining small towns to community management and operation (cf. Fuest, 2006). In 2003 the GWCL

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<sup>10</sup> The World Bank had put up a US\$100 million loan for the project which was cancelled because the choice of the company had not been made in a transparent manner. Ghana had also been called upon to pay US\$800,000 for the costs of preparing the defunct project. In turn, Britain's Department for International Development (DFID) was reported to have cancelled a US\$30 million rural water project (Bayliss & Hall, 2001).

<sup>11</sup> In 2001 the British DFID delayed a loan of US\$10 million for the rehabilitation of the water system in Kumasi, which was conditional upon progress in water privatisation in Ghana, citing slow progress in this area (International Fact-Finding Mission, 2002).

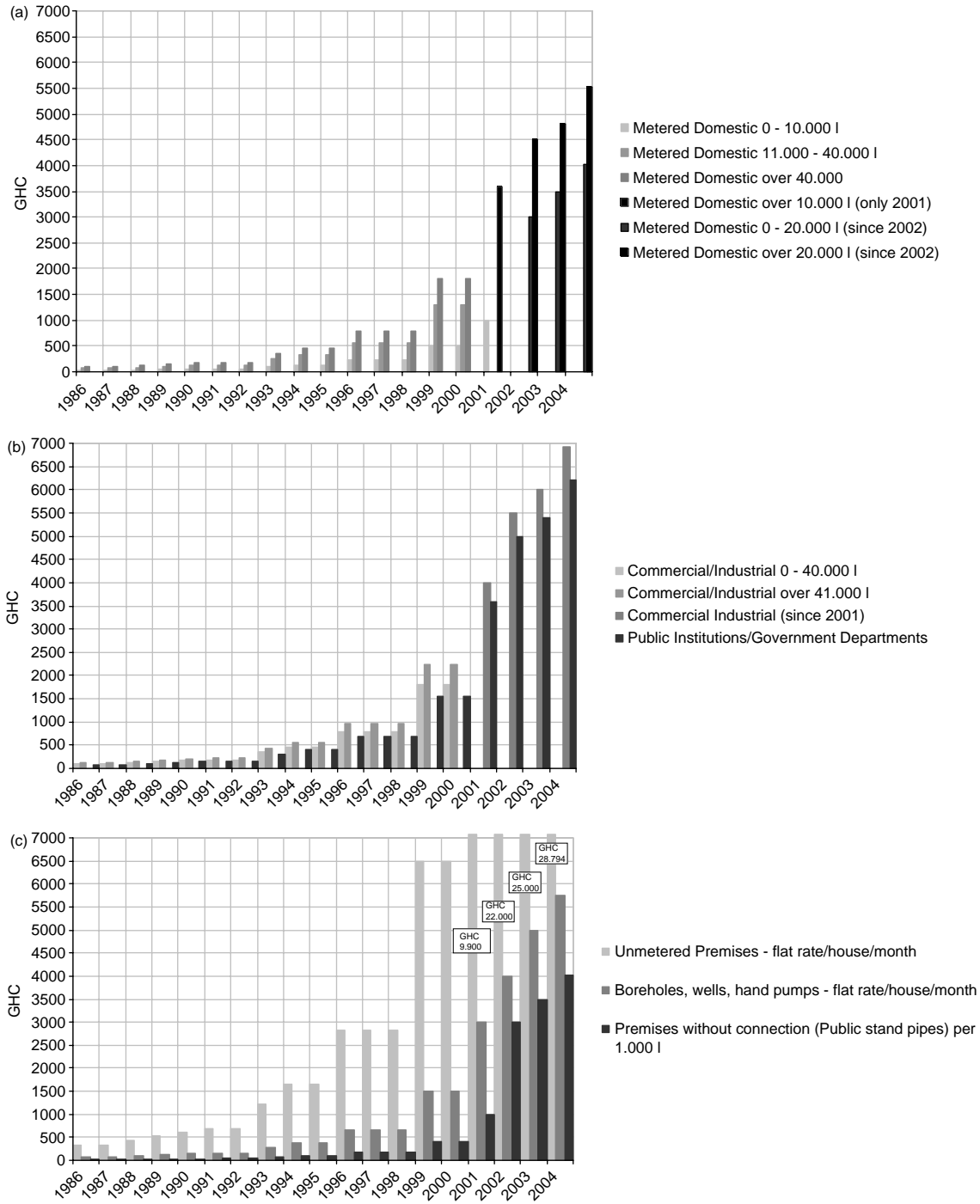


Fig. 3. Water tariffs in Ghana 1986–2004: (a) metered domestic, (b) commercial/industrial/public institutions/government departments, (c) unmetered premises/boreholes, etc/premises without connection (Sources: Ghana Gazette, 1999, 2001, 2002, 2004; PURC, 2002; interview with E. Nkrumah – Project Director UWP, 2005).

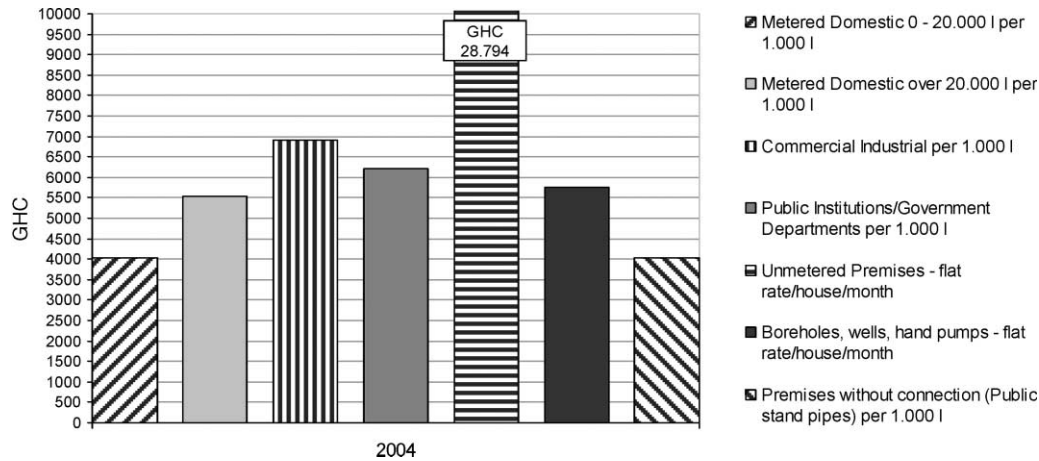


Fig. 4. PURC water tariffs in Ghana Gazette, 2004.

was reported to be still in charge of 82 urban water supply systems and in 2004 of 80 systems (Water Sector Restructuring Secretariat, 2004). Global economic trends unfavourable to private investment particularly in the water sector and the danger of regional political destabilisation (outbreak of war in Ivory Coast in 2002), made the pre-qualified corporations reconsider the level of investment that they had at first envisaged. The revised bid document for urban water supply drastically scaled down the level of investments (Amenga-Etego, 2003; Nii Consult, 2003).

The general deterioration of the international investment climate, especially in the infrastructure sector, had generally reduced the possibilities of finding bidders or buyers even for viable utility companies. After 2002, the GoG and international donors agreed to modify the PPP contract to a short-term management contract (5 years). Under this type of PPP the ownership of the GWCL would remain with the GoG while the management and other service sections would be outsourced to an operator. The private operator was going to be responsible of operations, maintenance, distribution, billing and revenue collection. The GWCL would be responsible for securing the financing and executing the needed extensions to and rehabilitation of the water supply systems. The donor community was obliged to help with investments in the infrastructure. The cost of a World Bank loan was considered to be significantly lower than the costs that a private company having to probe for capital loans at the international finance markets would have incurred (World Bank, 2004b). It was expected that after five years, improvement in the water supply situation would allow the operator to proceed with an *affermage* contract. The contract was to be awarded in a competitive bidding process (World Bank, 2004a)<sup>12</sup>.

In support of the PPP process the Urban Water Project, funded by the World Bank and co-financed by the Nordic Development Fund and the GoG, was devised in 2004. From a total of US\$120 million, about US\$92 million (ca. 74%) was assigned to rehabilitate existing water treatment and transmission facilities and expand distribution networks with the main target of extending water supply services to low income areas. Like before, capacity building and

<sup>12</sup> International bidding for the rehabilitation activities started in January 2005, the outcome of which was still open at the time this study was completed.

improvement of project management were envisaged. The GWCL was advised to restructure the Commercial Department at district level, to reduce high levels of unaccounted-for water, to reduce staff, to develop organisational functions, to develop cost recovery tariffs (again) and to mobilise revenue. An amount of US\$10 million was to be sourced from the World Bank to pay off redundant labour. A social connection fund of US\$10 million was planned to assist the urban poor to obtain private connections to the GWCL systems. Rather than distributing household connections, more public stand pipes were to be constructed. The poor were expected to benefit from the proposed project because the expansion of the network would reduce the need to rely on water vendors charging sometimes extortionate prices. With a private sector partner, GWCL was expected to become a more efficient utility provider without having to raise tariffs. The reduction in unaccounted-for water was expected to increase the revenue base of the sector<sup>13</sup>.

#### 4. The problems of the public provider: Ghana Water Company Limited

The organisation of the GWCL itself perhaps posed a challenge too formidable to be met. Efforts at restructuring the company and raising its efficiency seem to have had little success. The financial position of the GWCL remained notoriously weak; it survived only by means of considerable government subsidies. For example, for the fiscal year 2002 the GWCL recorded a net deficit of GHC 780 billion (cedi). This resulted not only from inadequate tariffs to recover costs and an inability to collect revenue, but also from a severe burden of debt and externalities such as inflation and exchange losses caused by the depreciation in the local currency. Thus, in the same year, electricity costs were reported to have accounted for 30% of the total revenue generated. Delivering a water supply service in general is a highly capital intensive business. Reservoirs, pipelines, treatment works, pumping stations and other elements of the infrastructure involve huge investments, often extending over decades. The sector is heavily dependent on imported technologies. In Ghana the costs for chemicals, spare parts and so on are calculated in US dollars, whereas incomes are accounted for in GHC (cedi). In the case of falling exchange rates a part of the income is in fact lost<sup>14</sup>.

In the year 2003 customer strength was estimated to be at about 289,000. The estimated demand for potable water was 1,023,000 m<sup>3</sup>/day whereas the current production comprised approximately 593,000 m<sup>3</sup>/day (GWCL, 2004c)<sup>15</sup>. Unaccounted-for water continued to remain high at around 50%, which resulted from leakages of old and badly installed, namely maintained pipe networks, illegal connections (water theft), understatement of consumption, low metering ratio<sup>16</sup>, tampering with meters, wrong categorisation of customers (commercial consumers billed as domestic consumers), and so on

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<sup>13</sup> According to a handout received at the Project Management Unit (see Figure 2) in October 2004 “Some Facts and Figs. about the Urban Water Project”.

<sup>14</sup> Foreign exchange losses for the year 2000 = GHC 351.8 billion, for the year 2001 = GHC 312 billion. In 2002, 95% of the annual deficit was mainly due to interest on foreign loans (GHC 371 billion) and exchange loss (GHC 390 billion) – this constituted 125% of the total revenue (Nii Consult, 2003; GWCL, 2004a).

<sup>15</sup> However, these figures need to be treated with caution. As one GWCL employee from a region capital explained, “Consumption is based on our feelings. Not everybody has a meter”.

<sup>16</sup> Available statistics seems to be contradictory: In 2002 70% of the connections were reported to be unmetered (Water Sector Restructuring Secretariat, 2002). In 2003 the proportion was reported to be at 52% (Nii Consult, 2003).

(Nii Consult, 2003). Moreover, meters were not always read and consumption was not regularly billed<sup>17</sup>. Billing, collection and sanctions were not governed by agreed-upon institutions and seem to have been subject to power abuse, rent-seeking and favouritism. Assessment of bills and payment of fees was often a matter of discretion and negotiation. Sanctions (disconnecting the customer) were only irregularly applied to free riders or “water thieves”, which was not only due to a lack of transport facilities – the reason given by the GWCL – but also due to kin or clientele relations and political expediency. When private offenders were tracked down it was possible either to bribe the collectors or to negotiate for postponements. Consumers could connive with GWCL staff to bill them on flat rates, when in fact they should be metered and billed for actual amounts consumed. When less powerful consumers were disconnected from the network some could find ways of reconnecting the lines themselves – without paying. In addition, there were severe constraints to recover costs from public actors such as ministries, government departments or agencies. Throughout the country, hospitals under the Ministry of Health, the police, schools and do on habitually did not pay any bills for the water they had consumed. The GWCL and its supporters were practically cross-subsidising the government agencies. For reasons of political loyalty it was difficult to impose sanctions<sup>18</sup>. The GWCL, like all public corporations in Ghana, has been put under the oversight of different government organs in an attempt to improve efficiency. Like private enterprises, they have boards of directors, the members of which “... are in many cases appointed, based not necessarily on their competence, but on their loyalty and contributions to the ruling party. Coupled with the fact that they have no personal stake in the businesses of which they are directors, the motivation to work towards a viable business is mostly absent. Since it is the very same Ministers that appoint these friends of theirs, who are also responsible for holding these people accountable, control is almost nil.” (Suglo Alidu, 2005)

Weakness of management could also in part be ascribed to the fact that many of the GWCL urban systems were headed by engineers who had little or no training in management skills. Some observers maintained that they had the habit of mixing management and technical issues<sup>19</sup>. In addition, the “brain drain” from Ghana has been posing a cross-cutting challenge which also affects the water sector. On the one hand, well qualified staff were hard to find in large numbers in the public services. On the other hand, the GWCL was labelled an overstaffed “typical state enterprise (. . .with) underemployed employees that were recruited according to patronage principles. There are many drivers where there are no cars; at the pay points you see 8 people where one or two would be sufficient” (Opoku-Agyemang, 2003). According to a consultant study, 50% of GWCL-staff were considered to be redundant by industry standards (Nii Consult, 2003). In general, employees of GWCL were paid badly and had little incentives to repair, maintain, or to obtain material and equipment. There were no effective internal sanctioning mechanisms.

Reportedly, the GWCL had 4,300 employees. Negotiations to introduce PPP to the GWCL, whether under a lease or a management contract, involved plans to downsize the staff of the company

<sup>17</sup> The account receivable by the GWCL comprised GHC 169 billion (ca. US\$21 million) at the end of 2002, which represented the average value of only seven months of billing. In 2002, GHC 160 billion were owed to GWCL by private households and by commercial companies (Maame, 2002).

<sup>18</sup> This problem seems to have been shared by other African countries (cf. Bayliss, 2001).

<sup>19</sup> One observer considered this to be just as absurd as employing medical doctors as administrators of hospitals, while there was in fact a lack of medical doctors in Ghana. Tentatively, the aspect of gender may also have played a role in the performance of the organisation. An evaluation study commissioned by the Canadian International Development Agency (CIDA) reported a severe bias of employment in favour of technicians and men in the GWSC. As opposed to male staff members women within the GWSC were reported to be “honest, committed and as a group, exhibit better public relations ability, in performing their duties” (WARDROP Engineering Inc., 1995: 15). This might require further research.

considerably. Staff to be made redundant were going to be a paid severance award and be assisted to form small-scale companies to enter into subcontracts with private operators for maintenance jobs and other work. The district assemblies were to be encouraged to employ some of the redundant staff for community water sanitation services (Water Sector Restructuring Secretariat, 2002). In 2004, the World Bank was obliged to assist the government to finance a severance programme (Water Sector Restructuring Secretariat, 2004). Estimates concerning the number of workers likely to be retrenched varied between 1,400 and 1,600. Not surprisingly, this caused considerable anxiety among the workforce of the GWCL and contributed to reducing the job motivation further. In 2004 GWCL staff were reported to be selling furniture and other assets to obtain some additional “income” before being retrenched.

The tariffs set by the PURC did not recover the costs of the GWCL. In 2003 the average tariff was 31 cents per m<sup>3</sup> as against estimated 70 cents for costs to be recovered (Nii Consult, 2003). Official reasons were: (1) The tariff increases remained below the proposals of the provider in order to create incentives for the reduction of inefficiencies. (2) The new tariff regime was reported to have reduced the income of the GWCL at the level of billing. The tariff system of 2001 had been vehemently criticised by the public because billing regulations, if enforced, affected the poor in cases where compounded households shared a singular domestic source. An increase in abstraction from one metered source beyond the level of 10,000 l moved the unit price to a higher category. In effect, the PURC decided to expand the metered domestic category from 0–10,000 l to 0–20,000 l without compensating the loss of income by sufficient tariff increases. (3) Another reason, less public, was the use of water as a “political currency”. In the run-up to elections, the GoG had regularly abstained from increasing the rates for utilities. There was obviously some scope for manoeuvre to deal with the conditions of the Bretton Woods institutions.

The public was generally reluctant to accept the adjustment of water tariffs that the PURC had introduced. Three reasons were given by the PURC for this lack of acceptance: (1) a failure to understand the problems brought about by previous under-funding and over-subsidisation coupled with (2) the perception that the quality of the service delivery had not improved; (3) enforcement of the PURC regulations proved to be difficult owing to the weak accountability and therefore legitimacy of the GWCL. This lack of legitimacy had various dimensions. Public blame of the GWCL referred to mismanagement, lack of maintenance of infrastructure, cheating by GWCL staff members, fraudulent deals, embezzlements, and so on (Akuaku, 2004; Ohene, 2002; Opoku-Agyemang, 2003; Nii Consult, 2003). Some of the company’s meter readers and other staff were said to take advantage of consumers’ ignorance and “milking them dry with bills, some of which are not only outrageous, but suspicious in every way . . .”. People reported to have been “cheated or bullied” by GWCL staff reportedly could not complain because they did not understand the billing system (Akuaku, 2004). GWCL collectors might keep the bulk of the collected fees and submit only a fraction to the company. There were no means of controlling such abuses. Only under considerable pressure by the media were a number of public servants dismissed on account of recurrent charges of mismanagement, including embezzlement. These were only cosmetic measures, as many of the key positions were filled by political appointments. Thus, for many reasons and not surprisingly, the commercial department of the GWCL had virtually collapsed and was identified as the Achilles’ heel of the company which urgently needed to be restructured (Nii Consult, 2003).

It should be mentioned that environmental factors beyond the range of the company’s activities have compounded its difficulties. The supply of potable water to urban areas was threatened by pollution, depletion and drying-up of the sources. Where hydrological regimes are characterised by strong and erratic rainfall as in many parts of the country, good vegetation cover is required to reduce the velocity of

run-off, erosion and sediment and nutrient loading of surface water, to warrant groundwater recharge and maintain quality of water. This situation had been grossly disturbed in many parts of Ghana by increases in human and livestock populations, non-sustainable agricultural and industrial practices, logging and lumbering and by charcoal production (Water Resources Commission, 2003a,b). In some parts of the country treatment plants incurred exceptionally high costs for water purification. Nationwide, the procurement of water treatment chemicals was reported to be at US\$6 million per month (GWCL, 2004a). At the same time the GWCL was reported to be behaving in an ecologically detrimental way. Thus treatment plants along rivers had been reported simply to release their sludge back into the river, namely the reservoir from which they would draw the raw water.

## 5. Critiques of the policy of public–private partnership

Arguments that were put forward by civil society members and NGOs against the PPP policies of the GoG were levelled (1) at flaws in the process of stakeholder participation, (2) at the role of the regulator and (3) at shortcomings in the design of the policy that might negatively affect the poor and other Ghanaian stakeholders (International Fact-Finding Mission, 2002; ISODEC & Southern Links, 2002). These arguments are matched by our own findings.

Neither the Public Utilities Workers Union nor the Trade Union Congress of Ghana had been consulted in the course of the entire study dealing with the restructuring of the water sector, which had been conducted between 1994 and 1995 by a commissioned consultant. No representatives from these organisations participated in the pivotal Ghana Water Sector Restructuring Workshop in 1995, where the PPP process was debated, endorsed and launched. The great majority of Ghana's citizens were unaware of the basic components of the PPP and had not been consulted. A “public awareness” campaign funded by DFID to educate and inform the public on the benefits of the PPP to ensure that civil society adequately understands and appreciates the need for the programme was considered as insufficient to compensate for the lack of proper consultation (International Fact-Finding Mission, 2002). The range of PPP options under consideration was considered to be inappropriate. The PPP options reviewed in 1994 had not included any public sector options or significant involvement of Ghanaian private sector participation. The pre-qualified bidders in 2002 consisted solely of the major international corporations (ISODEC & Southern Links, 2002).

The legislative framework of the regulatory mandate of the Public Utilities Regulatory Commission (PURC) was weak, both in relation to consumer protection and in relation to general oversight of the utilities. The PURC did not command sufficient financial and human resources to carry out all the required monitoring (cf. also Van Edig *et al.*, 2002). Moreover, it was reported to operate under a philosophy of self-auditing by regulated utilities, on the theory that the utilities are in the best position to provide information about their water quality and operations. However, self-audits are extremely controversial and, internationally, have been shown not to protect consumers. There were serious concerns that the imperative of full cost recovery and automatic tariff adjustment mechanisms would undermine the role of the PURC as an independent regulatory body. Moreover, the conditions of the tariff adjustment mechanisms were perceived to be interfering with the independent regulatory function of the PURC. It was considered inappropriate for the IMF to micro-manage the regulatory decision-making of the PURC (International Fact-Finding Mission, 2002).

Besides, the independence of the PURC was reported to have been further threatened by the interests of influential political power holders.

Increasing tariffs before extending the supply network creates more poverty. The tariff increases of the PURC were borne unequally by the poor sections of the population. They often had no access to the piped systems and their low incomes were already spent disproportionately in paying for water. For those without piped water, tariff increases were magnified as they were passed on by the tanker truck operators and other intermediary buyers and sellers (*International Fact-Finding Mission, 2002*)<sup>20</sup>. Concerns about public health were not seriously addressed by the PPP options envisaged, as there were no apparent mechanisms to monitor changes in waterborne diseases as a control measure to assess the impact of water sector reforms. Issues like water quality and social issues were in danger of being ignored, since the selection process of private contractors under the PPP was based on a technical audit and subsequent selection of the lowest bidder.

The retrenchment of a large share of the current workforce of GWCL was not considered to be a convincing policy whilst it was evident that there was a substantial need for maintenance, rehabilitation and expansion of the current water system in Ghana. There was concern that the proposal of the recently advertised management contract, just like the previous lease option, would result in marginalising local talent and capacity and possibly result in a reduction in the future engineering, managerial and technical capacity of the Ghanaian workforce to manage water service delivery (*ISODEC & Southern Links, 2002*). The extent to which staff of the GWCL would be involved in tasks delegated to sub-contractors by a private company was quite unclear. Also the scenario of future employment by district assemblies appeared to be volatile in view of the well-known financial and political constraints of Ghana's decentralisation policies (e.g. *Ayee, 1997, ISODEC & Southern Links, 2002*). While probably a large portion of the GWCL workforce would in fact still have had to prove its talent and capabilities, there could be no doubt that local enterprises would meet difficulties in competing with foreign ones. Ghana was going to incur additional external debt for the rehabilitation of the water system and there were fears that the majority of the revenue would accrue to foreign private companies.

The measures envisaged by the Urban Water Project need to be considered in the light of a decreasing popularity of lease contracts. For a variety of reasons, international companies have become reluctant to get involved as operators in developing countries. They have reacted to lower profitability by undertaking a series of withdrawals from developing countries and have “started to develop initiatives to reduce the political risk of private water ventures” (*Hall et al., 2005: 297*). Subsidies through public finance and aid money – guarantees against political and currency risks – are now seen as a key to sustaining the presence of the private sector in developing countries. Regulation and profitability are considered to be incompatible and subsidies and soft loans to be essential to ensure the continuity of service provision (cf. *Lobina & Hall, 2003*). Ultimately, the burden of costs would have to be shouldered by the people of Ghana.

The Urban Water Project, which was to accompany the implementation of the management contract, was criticised by the GWCL, because the planned investment seemed like a drop in the ocean and would not substantially improve the sustainable supply and the situation of the poor. Of a total of US\$120 million, US\$91.80 million (about 74%) were to be spent to rehabilitate and expand parts of the existing network. However, it was estimated that the total cost of rehabilitating and expanding the urban water

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<sup>20</sup> Those outside the (functioning sectors of) piped water systems had to resort to water vendors, who sell from tanker trucks in the street or storage tanks and wells in their backyards. Buying a bucket (~4–5 gallons = 17.6–22.1 l) at GHC 200 to GHC 1000, amounted to paying up to 10 times more than the GWCL tariff (*International Fact-Finding Mission, 2002; Misanet/IRIN, 2005; Nii Consult, 2003*).

infrastructure would in fact require over US\$1.5 billion (GWCL, 2004c)<sup>21</sup>. It was unclear if and how further funding, i.e. subsidisation by international agencies, could be secured in the future. Evidence so far collected has shown that in Africa citywide concessionaires have expanded their networks only slowly (or not at all) into the low-income areas. When they do so, it is most often with external donor financing or grants. This makes them unsustainable on their own (Collignon & Vézina, 2000).

Under the Management Contract for Urban Water (World Bank, 2004a), the relations with the private company were to be continued after a period of five years by an *affermage* contract (GWCL, 2004b). *Affermage* contracts are consistent with continued public ownership of assets but give the concessionaire a high incentive to generate and secure revenue. Because of the long term of the concession, the area monopoly power that is assigned and the continued public role in asset provision, “the incentives to cost reduction may not be very strong” (World Bank, 2005). The current developments seemed to lead to little more than the postponement of the conveyance of a public commodity, water, to private companies with purely economic interests. According to international evidence indeed the profit motive seems to be very difficult to reconcile with service delivery to the poor without substantial public subsidies (cf. Lobina & Hall, 2003). The PPP envisaged did not appropriately address the situation faced by marginalised and vulnerable groups such as the very poor.

The reform process was not based on sufficient information. To promote a policy regardless of the specific context increases the likelihood of failure. In water sector reform, there is a need for research to provide reliable and sufficient information (Green, 2003). Significantly, the Water Resources Management studies were conducted *after* the PPP options had been debated and already been decided on. In that way they served to legitimise the policy already selected and to pave the way to identifying measures that would make the sector attractive to foreign capital. Moreover, these studies were dominated by technical issues and poverty-oriented research was lacking. Likewise, no systematic studies had been conducted about the scope of activities and possibly viable options in the (informal) domain of water services. Reportedly, there were examples of well-working schemes, which had been initiated by the communities themselves (e.g. Savelugu, cf. Al-Hassan, 2005). Sufficient research might have facilitated learning lessons from such cases and generated locally appropriate solutions, i.e. formalising existing small- or medium-scale entrepreneurial water supply activities by means of build–own–operate (BOO) contracts.

Reform policies were directed at the supply of potable water to urban areas; they were disjointed from policies of sanitation and environment. The urban PPP was conceived to separate water supply from sanitation and sewerage services, of which the municipal, metropolitan and district assemblies, i.e. the bodies of local government, were in charge. Problems in these areas, however, could not be resolved without GWCL cooperation. Experience revealed that coordination and cooperation were non-existent or difficult. In Ghana, too, the popular concept of Integrated Water Resources Management<sup>22</sup> was considered to be a critical approach for both public policy and institutional development (The Royal Danish Embassy, 2002). Notwithstanding programmatic declarations to the contrary (cf. e.g. Water Resources Commission, 2003a; DANIDA, 2003) the effective implementation of anything close to this

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<sup>21</sup> A more recent source departs significantly from the GWCL estimate. In line with the UN Millennium Development Goals, the Ghanaian government estimated it would require US\$800 million of investment to bring clean water to all Ghanaians by 2015 (Misanet/IRIN, 2005).

<sup>22</sup> The IWRM concept generally calls for integrated policies that consider water for human consumption, agricultural and industrial production, energy supply and the corresponding environmental implications of these in terms of sanitation, drainage, conservation of water resources and the sustainability of sources of supply (Global Water Partnership, 2000).

approach was not in sight. There was a pervasive lack of political will both among Ghanaian office bearers and donor agencies to coordinate the water sector alone. Although the regulatory bodies (EPA, WRC, PURC) and local government bodies had been established to be charged with such matters, they were suffering from a lack of resources and capacity<sup>23</sup>. There was a lack of an overall sector policy which could be translated into downward action. The fragmentation of Ghanaian national and donor policies had not been resolved in spite of the objectives of the Water Resources Management studies and the creation of the WRC, the task simply being beyond its power and means. The WRC had been strongly supported by the Danish International Development Agency (DANIDA) but suffered from a lack of domestic financial and political support and public legitimacy since its foundation in the year 1998. Specifically, the Ministry of Works and Housing (MWH), which commanded the most agencies with responsibilities for water supply under its jurisdiction, was generally considered to lack both the capacity and the political will to play any vital role in sector coordination and policy implementation.

Without government capacity, or “good governance”, no reform processes can be successful (Green, 2003). The lack of this capacity, the preoccupation of government agencies in consolidating their power in the absence of strategic directions and the lack of political and economic compliance with the implementation of reforms in general had been observed by various key informants. They were considered as cross-cutting structural impediments to any national reform. Investments were driven by what donors are prepared and willing to finance, “. . . rather than what has been determined to be strategic directions for the Government of Ghana, a consequence being the declining/diminishing investments by GoG in those priorities” (The Royal Danish Embassy, 2002: 33). Likewise, in the organisation of the GWSC/GWCL a persistent lack of a “culture of reform” was noted. Amis suggests that this could be generalised to the entire public sector reform process in Ghana:

“... despite a substantial amount of rhetoric, there has been almost no reform on the ground. Arguments about efficiency gains through private involvement are simply irrelevant if the overriding logic of institutions is patronage.” (Amis, 2004)

## 6. Discussion

“The solution is not to limit or prohibit independent provider activity in the delivery of water and sanitation services, in the name of protecting monopoly privilege or social ideals. Bringing independent providers into partnership with other actors can lead to new ideas, sources of energy and even sources of financing.” (Collignon & Vézina, 2000: 50)

International financial institutions have been criticised for regarding private sector involvement as almost the only solution to improved performance of the water industry. “They and their turbo-capitalistic advisers are, however, distorting the available options when providing financing for water and sewerage projects” (Hukka & Katko, 2003: 97). What little evidence there is from water privatisation in Africa shows that, “given the enormous institutional demands presented by privatisation, alternative policy options need to be considered” (Bayliss, 2001: 12). A recent study by the World Bank itself (Kessides, 2004) concludes that in the past the policy of reform has been oversold and

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<sup>23</sup> The general level of pollution in Ghana and the fact that the GWCL itself acts as a polluter suggest that the influence of the Environmental Protection Agency, another supposedly independent regulator, was just another weak (imported) institution with insufficient means of monitoring, control and political support.

misunderstood, in future reforms cannot be applied blindly as has been the case in the past. There is no universal reform model and PPP must come only *after* restructuring and introducing competition. The lessons emerging from research since the end of the 1990s had not been learnt by the policy makers in Ghana. Tentatively, some alternative solutions are considered here: commercialisation of the public sector, the promotion of small-scale private providers and more appropriate technologies.

According to Lobina & Hall (2003: 35) successful public sector operations have been understudied on account of the international bias in favour of privatisation. A comparative study by Collignon & Vézina (2000) has shown that public agencies may be just as effective as private ones. The performance of the water agencies with citywide responsibility for water supply varies a great deal and does not depend on whether they are public or private concessionaires. Creating competition in the public sector and providing frameworks and incentives for a public utility to apply commercial principles to its own operations to improve its performance seem to be viable strategies (cf. Hukka & Katko, 2003). Outsourcing of non-core operations to private contractors through competitive bidding is one simple example and is really just an extension of procurement policy of including the delivery of services as well as supply of materials. Public ownership seems to fare well in comparison with private ownership, but often only when significant steps are taken to commercialise management of the public organisations concerned (Hukka & Katko, 2003).

According to evidence from other African cities (Collignon & Vézina, 2000) on average over 75% of the urban poor received drinking water directly from a range of private but small independent providers (vendors, water truckers and network providers). These providers have so far been treated as the enemies to be neutralised by PPPs that involve trans-national companies. However, they have creatively tackled the challenge of water service delivery in a variety of ways and may indeed be the only realistic option for many poor urban households (Collignon & Vézina, 2000). There is a vast range of possibilities for involving the private sector at different levels of service including community contracting and NGO contracting. Private operators may in fact have been supplying the bulk of potable water in Ghana. With a view to creating incentives for trans-national companies, policy makers in Ghana had considered alternative approaches to address failing services only for small urban and rural areas, such as decentralising water supply to local government involving community-driven development and small independent providers.

Appropriate water tariff policies, too, should be based on sufficient information about local and framework conditions as well as on lessons learnt elsewhere. Tariffs based on true cost recovery are bound to exceed the ability of many customers to pay. Some kind of (cross-) subsidisation is indispensable. The water tariff systems of the African concessionaires studied by Collignon & Vézina (2000) were structured along the same lines, whether run by public or private operators and tended to favour some degree of cross-subsidy. There were important variations from one country to another that reflected different national social policies<sup>24</sup>. With respect to the difficult task of designing appropriate subsidising schemes, Lauria *et al.* (2005) have provided a detailed comparative analysis supplemented by recommendations that address, *inter alia*, the problems of perverse incentives, for example when households poorer than the recipients bear the costs of subsidising water connections. Kessides recommends directions for future reforms and research to improve infrastructure performance,

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<sup>24</sup> The price per unit increases with the amount consumed, with two, three or four tariff levels between 5 and 100 cubic metres of monthly water consumption. High-volume users thus paid more and the surplus was intended to balance out the loss from charging less to lower volume users. The differential was greatest in Burkina Faso, where the rates charged to high-volume consumers were five times those paid by low-volume users, a legacy of the Sankara era. It was least in Guinea, where the rates were practically uniform (Collignon & Vézina, 2000).

identifying pricing policies that strike a balance between economic efficiency and social equity, suggesting rules governing access to bottleneck infrastructure facilities and proposing ways to increase poor people's access to these crucial services (Kessides, 2004). Further research is urgently required on how PPPs and their related roles and responsibilities have developed in the long-term and what impact these changes have had. The extent and modes of outsourcing in various countries and their outcomes need to be studied and indicators need to be developed to evaluate the quality of services (Hukka & Katko, 2003: 125).

However, the question needs to be raised if purely economic incentives suffice to induce the changes wanted or if other measures need to be found to deal with endemic patronage politics. An assessment of pro-poor PPP policies concluded that PPP projects which had resulted in noticeable improvements for the poor were based on an understanding of their needs and constraints, to which the technological and financial design was then adapted. Factors that had a positive impact on poor consumers have been their participation in the development of a shared vision, effective communication channels between partners and formally agreed roles and responsibilities (Sohail & Cotton, 2004). Research is required on how transparency and accountability of water services can be improved. "What is needed is a way to think about the institutional and political characteristics of infrastructure services to understand what works where and why" (World Bank, 2003: 160).

In Ghana, like worldwide, poor citizens have had a weak voice in water sector politics because utilities are particularly vulnerable to patronage politics. Providers have ended up being more accountable to policymakers than to clients. A solution promoted by the World Bank, i.e. establishing an effective accountability mechanism separating the policymakers from the providers and making providers more responsive to clients (World Bank, 2003) was not in sight.

There is a global consensus that PPP in water supply is at risk where there is weak regulatory capacity. Features like a well-established public sector ethos, reasonable management information systems and supporting institutions including legal systems to allow for contract enforcement are considered as indispensable. Where there is no effective legal system, as in Ghana, and the civil service is subject to clientele politics involving bribes, private sector contracts might be a major source of corruption (World Bank, 2003). On the terms that had been set in Ghana, employing "private provision to drive a wedge into patronage (which) makes managing private participation . . . potentially powerful for increasing accountability" (World Bank, 2003: 167) could not be expected to improve the situation. On the contrary, there is generally a risk that PPPs involving trans-national operators create problems of transparency and accountability and also provide incentives for corruption. "These questions are usually avoided in the literature on PSP, but have significant effect in reality . . ." (Lobina & Hall, 2003: 16). There is ample evidence that trans-national companies or any private water company have incentives to engage in corruption of officials in order to bypass competition and to seek more favourable contract terms and laxer regulation and monitoring. Moreover, effective participation in decision making about and monitoring of these PPPs has so far been either non-existent or ineffective (cf. Lobina & Hall, 2003).

After this analysis, the consideration of technical solutions may be perceived as merely addressing a proximate cause of a problem. However, some issues of appropriate technology need to be mentioned. The water supply systems operated by the GWCL and previously the GWSC, depended on groundwater and surface water sources that were often polluted. The technologies in use were ancient; they had been introduced in colonial times or after independence and depended on imported technology. Against this backdrop Ghana's systems of water supply revealed a striking lack of rainwater harvesting technologies

for private, industrial and public consumption. Potential uses of rainwater included supplementary domestic, agricultural and industrial water supplies.

According to experts, water requirements could be reduced by significant percentages if rainwater harvesting was taken more seriously. Many houses in urban areas have suitable roofs and many residents are generally better-off financially and hence could take advantage of rainwater by purchasing or constructing storage tanks and collection gutters. However, because this was the group that was generally better served with potable water from big schemes, rainwater harvesting was not considered (Gyau-Boakye *et al.*, 2004). However, the winds were changing slowly. In 2004, a public education campaign was being mounted for house owners to provide rainwater catchment facilities to store rainwater for non-drinking purposes (GWCL, 2004a). The drafting of an act requiring all newly built houses to be equipped with facilities of rainwater collection was considered. However, this was only considered if rainfall events happened to coincide with periods when pipes were not flowing (Gyau-Boakye *et al.*, 2004). Although at the technical level structural dependence on imports could be reduced by simple technologies, these were insufficiently considered.

## 7. Conclusion

Ghana has been widely perceived as one of the “success stories” of sub-Saharan Africa. However, comprehensive analyses of interventions of the World Bank/IMF in nearly two decades of structural adjustment in Ghana have concluded that Ghana’s development programmes have not been based on institutional development grounded in the indigenous understanding of government and authority, which defined roles for the state and public administration. The people were not familiar with the new institutions that had been grafted onto the old structures. Though fiscal management was deemed successful and generated modest growth, Ghana’s economy did not recover. Ghana has been found to be another case of the devastating impact of neo-liberal prescriptions on poor countries worldwide. The problem that the World Bank/IMF misdiagnosed Ghana’s problems seems apparent (Konadu-Agyemang, 2001). Institutional and legal reforms prescribed by the Bretton Woods institutions also played a key role in the design of a new framework for the water sector in the 1990s. The PPP policies applied to the provision of urban water seemed to be operating in the same way.

However, Ghana is a case of a pending PPP process, which has been due to changes in the international constellations of interests at the beginning of the millennium, public resistance and, less conspicuously, a lack of compliance with proposed reforms on the part of some actors of the public agencies involved. Two PPP options were developed and contested over a period of 10 years. A lease option was favoured at first but was abandoned in favour of a short-term management contract with an ensuing *affermage* contract that was embedded in a comprehensive donor-funded programme addressing, above all, the rehabilitation of the infrastructure. Like the lease option, the second option, too, was not expected to serve the poor in substantially better ways. If implemented, the reforms in Ghana’s sub-sector of urban water supply were going to be incomplete, unsustainable and misdirected. They did not sufficiently address the important issues of sector coordination in the face of weak national institutions and structural interdependencies based on patronage relations among the government, regulator, provider and clients.

The case of Ghana provides an example of imposed generalised PPP policies that lack information about local framework conditions and therefore ignore possibly viable options for reform. There is a

wide range of public/private combinations that can be evaluated to suit local conditions. Within Ghana and internationally, more (comparative) research is required to highlight the conditions of “success stories” in PPP from which lessons can be learnt for the design and implementation of policies at country, district and community levels.

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