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| **What Impacts has Private Sector Participation had on the Delivery of Urban Water Services and on Customer Satisfaction and Willingness to Pay for these Services in Ghana?** |
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 **KING’S COLLEGE LONDON**

# UNIVERSITY OF LONDON

## DEPARTMENT OF GEOGRAPHY

### MSc DISSERTATION

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**Abbreviations/Glossary**

AVRL Aqua Vitens Rand Limited.

CEOTI Corporate Europe Observatory and Transitional Institute.

CONIWAS Coalition of NGOs in Water and Sanitation.

CWSA Community Water and Sanitation Agency.

DIC Divestiture Implementation Committee.

EPA Environment Protection Agency.

GIS Geographical Information Systems.

GNA CAP Water Ghana National Coalition Against the Privatisation of Water.

GoG Government of Ghana.

GUWL Urban Water Company Limited.

GWCL Ghana Water Company Limited.

ICSID International Centre for the Settlement of Investment Dispute.

IDC International Donor Community.

IFC International Financial Corporation.

IMF International Monetary Fund.

IPC International Poverty Centre.

IRC International Water and Sanitation Centre.

ISODEC Integrated Social Development Centre.

KFW German Development Agency.

MDG Millennium Development Goals.

MIGA Multilateral Investment Guarantee Agency.

MOU Memoranda of Understanding.

MWRWH Ministry of Water Resources, Works and Housing.

NDC National Democratic Congress.

NDF The Nordic Development Fund.

NGO Non Governmental Organisation.

NPP New Patriotic Party.

NRW Non Revenue Water.

PPP Public Private Partnership.

PSP Public Sector Participation.

PURC Public Utility and Regulatory Commission.

RCN Research Centre Network.

SPV Special Purpose Vehicle.

TREND Training, Research and Networking for Development.

WASH Water, Sanitation and Hygiene.

WB World Bank.

WDM World Development Movement.

WRC Water Resource Commission.

WSMP Water and Sanitation Monitoring Platform.

WSQ Water Service Quality

**Abstract**

*With the specific reference to water policy in Ghana, this dissertation will examine the Policy of Public Sector Participation (PSP) in Urban Metropolis (Privatisation). The World Bank (WB), International Monetary Fund (IMF) and International Donor Agencies have pressurised Ghana into Water Privatisation. This Policy shift from the Public Sector Water Policy to a Private and Public-private Partnership (PPP) in Water Delivery is meant to improve the Infrastructural, Management and the cost of Water Production. Furthermore, I used Qualitative Methods with a focus on Primary Data. Data was assessed by Semi-structured Technique to interview 13 Water Industry Experts and 11 randomly selected Participants for a Questionnaire Survey. The Study explores the advantages and difficulties of the Policy.*

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**Introduction**

The International Monitory Fund (IMF) and its donor partners courted Ghana in the early 1980s in privatising the country’s public sector corporations and industries (Frimpong-Ansah, 1991). Ghana was the first sub Sahara African country to attain independence from colonial rule; as such the IMF has always strived to use it as a form of ‘guinea pig’ in its privatisation reforms (Amenga-Etega and Grusky, 2005). Also, the World Bank (WB) and its partners have been trying to privatise the water sector in Ghana through the Structural Adjustment Programme (SAP) since the 1970s (McDonald and Ruiters). The actual process of privatising Ghana’s Water Sector began in 1999, under the democratically elected Government of the National Democratic Congress (NDC) (Amenga-Etega and Grusky, 2005). However, the opposition Political Parties’ Pressure Group, the Ghana National Coalition against the Privatisation of Water (National CAP of Water), was able to show evidence of corruption in the private bidding process, which delayed the Privatisation Process (Financial Times, 2003). Amenga-Etega and Grusky (2005) further argues that the National CAP of Water, with the help of the general Civil Society was able to delay the process for a further Three years.

At this juncture, the Ghana Government through the help of the International Financial and Development Agencies decided to pursue the Agenda through different means, that is, Decentralisation and Unbundling (McCaskie, 2009). The First Public Water Supply System in Ghana was started during the early Twentieth Century, when the Hydraulic Division under the Public Works Department was formed to serve only Urban Residents with Water. In order to meet rural needs in Water Supply, the Department of Rural Water Development was created in 1948. The Water Supply Division of the Ministry of Works and Housing was established after Ghana gained Independence and took over Water Provision for Rural and Urban Residents. Following the acute Water Shortage in 1959, the Ghana Water and Sewerage Corporation [GWSC] was created and tasked with supplying Urban and Rural areas with Water. After the Operational difficulties in the early 1990’s, new Institutions were created and the GWSC was reformed. When Decentralisation was started in 1993, Sanitation Duties were transferred to the newly created District/Municipal and Metropolitan Assemblies. Afterwards, the Water Resources Commission was created in 1996 to ensure Effective Management of Water Resources. The Public Utility Regulatory Commission [PURC] was created to Monitor the Operations of the GWSC and determine Water Tariffs. The Community Water and Sanitation Agency [CWSA] was also formed in 1998. This led to the transfer of Rural Water and Sanitation Management to the CWSA.

On July 1, 1999, the GWSC was changed into the Ghana Water Company Limited (GWCL) to operate as a full Limited Liability Company. GWCL was responsible for only Urban Water Delivery. In 2005, the Government initiated the process of allowing Private Limited Liability Companies to bid and manage the Urban Water Sector for the GWCL (GoG, 2005). Aqua Vitens Rand Limited (AVRL) was chosen as the best Company to manage the Urban Sector for GWCL. The Company was given a Five (5) year Contract to improve the Business, Commercial and Customer Service Operations of that Arm of the Water Sector (GoG, 2005).The Government decided not to renew the GWCL Management Contract for the running of Urban Water in Ghana (Ministry of Water Resources, Works and Housing – MWRWH, 2011), when the contract came to the Five years duration in May 2011. Currently, a New Management Company has been set up by the State to partner GWCL in undertaking the same Contract perimeters that was assigned to AVRL. The new Company is being commissioned as a Special Purpose Vehicle (SPV), by the Sector Minister, as a wholly owned Ghanaian Company that is meant to stabilise the Urban Water Sector and bridge the gap between GWCL and the Urban Private Water Sector of the Company. The reasons for the Non-renewal of AVRLs Contract and the setting up of the New Company (Ghana Urban Water Limited – GWUL) will be discussed in Chapter Three.

**A). Aims, Objectives and Scope of the Research.**

This Research Project is aimed at measuring the Impacts and Effectiveness of the Private Sector involvement in the Management of the Water Sector in Ghana. The scope will be on the Urban Water Supply in Ghana, focusing it on the Accra and Kumasi Metropolis of the Country. Furthermore, it will examine the Pros and Cons of Private Sector Input of Management Techniques and Investment in the Water Sector. Also, the Project’s Time Frame will be between the years 1999 to July 2011. This Time Frame was chosen because the Private Sector involvement in the Water Industry was introduced in the year 1999. Moreover, a New Management Company was created in May 2011 to oversee the running of the Urban Water Sector in the Country.

The central argument for Privatisation is Economic Effectiveness (Jaglin, 2002; Bayliss, 2003). Neoliberal Analysts argue the Private-sector in its bid to maximise profit will improve the Management Capacity of Utility Delivery Institutions to address existing Water Delivery problems. Improved delivery will attract higher Investment in Infrastructure. Improved Infrastructure has the advantage of reducing Production Cost and subsequently reducing Water Tariffs making Water affordable even for the Urban Poor. Nonetheless, certain Factors render this argument invalid, at least in Ghana. In Ghana, upward Price adjustment led to improved Economic Efficiency rather than reduction in Water Tariffs. AVRL (2008) claims Water Revenue increased by 23.21% from 2006 to 2007 but then Water Tariffs also increased by 60 percent within the same period. The most recent Tariff increase was on June 1, 2010, when Water Tariff were increased by 36% (Amankwah-Sarfo, 2010). Consequently, Privatisation has not made Water more affordable in Ghana. Unfortunately, it looks certain that Water will be less affordable in the future as the PURC wants to introduce an Automated Tariff Adjustment System in Ghana.

The Objective of the Thesis is to review the current Policies governing the Private Water Sector and to probe the margin of inequalities in the Domestic Water Supply. Ghana’s Development is lop-sided, in that, a greater proportion of its Infrastructure is at the Southern part and low access to basic services is more prominent at the North (Government of Ghana (GoG), 2010). For example, more than four-tenth of Bolgatanga’s Residents lacked access to Pipe-borne Water whereas less than one-tenths of Accra’s Residents lacked access to Pipe-borne Water. Utility provision could have served as a vital tool for addressing inequalities. However, more emphasis has now been played on cost recovery measures and Water Supply is no more considered as a Public Good. This significant shift means access to Potable Water is no more seen as a right but one’s ability to pay essentially determines the volumes of Water one gets. Essentially, this will thwart the GoG’s efforts geared towards addressing inequalities.

**B). Research Question.**

What Impacts has Private Sector Participation had on the Delivery of Urban Water Services and on Customer Satisfaction and Willingness to Pay for these Services in Ghana?

The Research Methodology for this Research Project is Qualitative Research. Books, Articles and other Literatures on Water Privatisation in the world in general, with emphasis on Africa and Ghana in particular were reviewed. Furthermore, semi structured interviews with Politicians, Opinion Leaders, Water Industry Managers, NGOs, the Private Sector, Developmental Partners and Educators were conducted to ascertain the Impacts of Privatisation of Urban Water on the general Populace. Also a Questionnaire Form of Survey was randomly done with the Urban Dwellers of Accra and Kumasi Metropolis. This was to measure the how the ‘Common’ Water user perceives Privatisation. Also, I interviewed a sample of the General Public in the Cities of Accra and Kumasi to measure their knowledge and understanding of the Water Privatisation Reform Policy.

Furthermore, both Primary and Secondary Data was used in gathering the information needed for this Research Project. There was already Data available on the United Nations (UN), World Bank (WB), IMF, GoG, NGOs and other National, Regional and International Developmental Agencies, which demonstrates the how the Privatisation bidding processes work, the allocation and Management of Water Supply in Municipal Areas. The Data I collected by myself was used to measure the Socio-economic Effects/Impacts of the Reforms on the end users of Water. The Primary Data was gathered through Semi-structured Interviews, Questionnaire Surveys and a Focus Group Discussion I had with Water Tariff Regulators at the Public Utility Regulatory Commission (PURC).

**Chapter one**

1. **Literature Review**.
	1. **Water Privatisation as a whole**

Water is frequently termed as a public good in conventional discourse (Baker 2010, Gregory et al 2009 and Pearce 2007). As such citizens of this world, both the Global South and North, see the provision of clean Water as a Human Right (Allan 2002, Hoekstra & Chapagain 2008, and Saleth & Dinar 2000). Furthermore, Water is seen as no substitutable, it is essential for life and its supply has critical Public Health implications that have the potential to impact on a whole Population (Baker 2010). Hence the Privatisation of Water is always seen as an anti Social Policy the world over.

Water Privatisation is the increase in Private Ownership, Control and Action relative to public Ownership, Control and Action of Water Organisations, Co-operations or State Companies (Gregory et al 2009). This process can normally occur in three main ways. The Assets and Activities of a Public Sector Water Organisation can be sold to a Privately Owned Company in the form of Shares (Mansfield 2004). Secondly, Private interest can also increase their influence in a Public Utility Organisation by directly participating in the running and managing of such Entities, for example staff can buy the company from the state (Shiva 2002). Finally, Private Provision of Water may grow faster in the Public Provision, which will in effect make Public Sector stocks diminish and gets taken over by the Private Limited Liability Company (Hand & Pannell 1999). Hence, Privatisation is often perceived as an element of the rise of Neo– liberal Political Economies (Harvey 2003b; 2005, Friedman 2002 and Stiglitz 2002).

There are three main Contemporary Models of Management of Water in Metropolis the world over. According to Baker (2010), they are mainly Private, State and Community run Management Systems. However, my Research is based on the Private involvement with the State taking a stake in the Industry or overseeing the Policies that governs it. Furthermore, a conceptual frame work for analysing the exclusion from access to Public Services, State Failure and Governance Limitations have hampered the process of Water Privatisation as an emerging Policy change (Annez 2006).

The Literature available also explains the concepts of ‘Private’ and ‘Public’ in the sense of Water Provision. Policy discourses usually rely on the assumptions of Functional Liberalism, in which the difference between Public and Private equates with Governmental and Non – governmental (Jenkinson & Mayer 1994, Bishop et al 1996 and Baker 2010). Commonly, Non – governmental (private) is tantamount to profit making Organisations, however in recent discussions, ‘Social Capital’ inputs have included Non – governmental Organisations (NGOs) into the Private Water Provisions in Urban Sector Supplies (Allan 2010, Quinlan 2005 and Baker 2010). Furthermore, the debate between State or Public and Private or Market Activities is essentially on the notion of jurisdiction, resolved via utilitarian standards of performance. However, limiting the deliberations to Technical Terms and Managerial Strategies can be deceptive (Morgan 2004b). Baker (2010) further argues that Privatisation is a development of actions in a marketing environment that creates new property relations and in so doing generates new society - nature relations. Hence, it is fundamentally ideological and not merely technical. Therefore, the economics of Water Privatisation cannot be ignored.

From the viewpoint of Conservative Economist, Water is not a true public good, defined as something that is nonrivalrous and nonexcludable (Larse 2010 and Sultan & Loftus 2011). These authors further ascertain that the Utilisation of Water is to some extend rivalrous. For that reason, Economist and other Social Scientist describes Water as a shared resource, from which it is hard to exclude access, but the consumption of which by one person can affect values for others. However, the provision of Clean, Quality Drinking Water to the general public by the State, and to some extend the Private Sector is seen as a precondition for citizens’ human rights and the material wellbeing of its inhabitants (Barlow 2008 & 2011).

Furthermore, in financial conditions, the Capital intensiveness of Water Supply Development Projects and the monopolistic nature of its networks have been used by Governments to increase the involvement of Private Capital in the Sector (Shiva 2002). However, in most Industrialised Countries and large Urban Cities, Governments dominate the business of Water Supply, since the 1990s. In the instances that Governments have established Companies to run Water Supply Sectors – for example as it pertains in the Netherlands, these tend to be Non – profit operating Institutions (Allan 2010, Bakker 2010 and Barlow 2008). Governments justify their involvement in the business of Private Water Supply Systems with a double edge sword argument, based on Liberal Economic Assessment and Ethical Considerations. Moreover, the scarcities of Urban Water have increased the Commercialisation of its Supply Systems (Allan 2010).

The trends of Urban Water scarcity have increased the Policy of Privatisation in Water Supply Systems. Also, Swift Urbanisation, Inadequate Public Finances and the Mediatisation of Lack of Economic abilities of Metropolitan Governments to support the Water Supply Networks Services, have increased the Reform Agendas of many Cities (Allan 2010, Bakker 2010 and Morgan 2004b). Furthermore, Privatisation unearths the creation of new and untapped resources, and incorporates new market actors and Institutions for Fresh Rules, Norms and Customers in improving Resource Management regimes.

Finally, the Neo – liberal Policy stance of Modern Governments have shifted Policy change from Government to Governance (Raco 2003). This Policy is geared towards Deregulation, Devolution and Decentralisation. Raco (2003) argues that Liberalisation involves selective Deregulation and Reregulation designed to encourage competition and reduce the role of Government Sectors in Regulation and decision making more widely. This sometimes is associated with the Marketisation of Governance, whereby Private Sector Customs and Market Ethos are introduced into the Civil and Public Services. Also, State Administrative Functions are contracted out to Private Firms, and Market based indices are used to measure the performances of Public Institutions and Incentive Structures are introduced into Government Agencies.

* 1. **Water Privatisation in the Global South**.

There is nothing more essential than Water. In many Poor Countries, those who have Water piped into their homes are in the minority. Moreover, a Christian charity, Christian Aid (2008) argues that over 1.1 billion people still have no access to improved Water Supply, which means they draw their Water from potentially contaminated sources. This is the case in the Global South (GS), where overall, nearly half of the population has no regular, safe supply and in the countryside, where 80 per cent of people live, that figure rises to almost two thirds (Christian Aid, 2008). Furthermore, several Water Researchers argue that Water should be recognised as part of the Fundamental Human Right for survival (McDonald & Ruiters 2008).

Though the World Bank may be changing its formerly dogmatic approach to full Privatisation of the Water Sector, key cases in Tanzania, Armenia, Zambia and India highlighted that the Bank may not be learning quickly enough and that the poor may be left both without improved Water and paying for botched Privatisations (Molina & Chowla 2008 and Coles & Wallace 2005). The World Bank (WB) Vice President Kathy Sierra has asserted that Privatisation is not "the only answer" - there was a full spectrum of Public-private mix of Investments as well. Only a few days earlier Senior World Bank Official Shekhar Shah reported in New Delhi how the Bank had "learned the hard way" that it was not correct to leave Water to the Private Sector (Woods 2011). These assertions go to show that pure Privatisation is not the only form of Policy to enhance the Water Industry.

However, the International Financial Donor Community keeps increasing the Fiscal Capital Investment in the Water Sector in the Global South to Private Institutions. International Finance Corporation (IFC), a Private Investment Arm of the WB, shows that the Bank is still not interested in pursuing Public Solutions to Water Provision, by stating that they believe providing clean water and sanitation services is a real business opportunity (WB 2008). Currently the IFC's focus is on creating the right conditions for Private Investors, including a $100 million fund, called IFC Infraventures, to provide risk capital for early stage Development of Infrastructure Projects in the poorest countries, but also to encourage more Public-private Partnerships (IFC 2007). In a renewed drive to push the Private Sector into basic utilities, it is unlikely that the IFC will be willing and able to address the main problems stemming from the failed Water Privatisations of the past. Furthermore, the initial hopes for Privatisation were so high that Donor spending on Infrastructure fell in the expectation that the Private Sector would take up the slack (Hartzler 2007). For example, WB lending for Infrastructure Investment declined by 50 per cent during 1993-2002, with much of this directed towards preparing firms for Privatisation (WB 2003). Also, in 2002, Bank lending for Water and Sanitation Projects, in particular, was only 25 per cent of its Annual Average during 1993-97 (Gleick 2002 and Pearce 2007).

Furthermore, Hartzler (2007), Molina & Chowa (2007) and Woods (2008) argue the World Bank increased its support for Private Investment in Utilities through its IFC and its Multilateral Investment Guarantee Agency (MIGA). While Bank lending to Public Water Utilities dropped from about $2.9 billion in 1990 to only $824 million in 2001, its sector lending to Private Investors rose from $45 million to $687 million. Lending about $20 billion to Water Supply Projects over the last 12 years, the WB has not only been a Principal Financier of Privatisation, it has also increasingly made its loans conditional on Local Governments Privatising their Waterworks. The ICIJ's study of 276 World Bank Water Supply Loans from 1990 to 2002 showed that 30 per cent required Privatisation - the majority in the last Five years. Hence, the debate is shifting. Instead of 'should the Private Sector be involved in Water?' the question is 'how can we work together for sensible and fair solutions?'

A fair solution has still not been reached in places like Tanzania, Armenia and Thailand, where the Bank-supported Privatisation of Water Services resulted in sharply higher Water Prices, little improvement in supply and the eventual termination of the contract with UK-based Multinational Biwater in 2005 (Bretton Wood Project 2008 and Allan 2010). In 2007, the Bank's International Center for the Settlement of Investment Disputes (ICSID) issued its ruling in Biwater's lawsuit against Tanzania, and found that while technical breaches of Biwater's Investors' Rights did occur, Biwater was not entitled to compensation because the breaches were worth nothing and the termination of the contract was inevitable (ICSID 2008). According to the World Development Movement (WDM) the Tanzanian Water Privatisation Project was a scandal right from the beginning, it was absolutely right that the Court has found that Tanzania owes Biwater nothing, but shocking that Biwater saw it fit to drag the Government of such a Poor Country through the Courts in the first place.

Even though the ICSID's refusal of Biwater's claim to compensation was a victory for the Tanzanian people, they have lost years waiting for improvement to their Water Sector. In a separate arbitration the Government was awarded damages for breach of contract by the Biwater-owned Local Subsidiary, City Water, which had already been declared bankrupt (Cann 2007). The Tanzanian Government's Lawyer suggested that the World Bank should pay reparations to Tanzania as "the whole affair was the prescription of the World Bank. It will be fair that they should pay the Government". At the very least, as Mussa Billegeya from the Tanzanian Association of NGOs said, "The failure of this policy should be a lesson to the World Bank, Aid Donors, and Governments that Privatisation is not a solution for problems in Developing Countries. In fact, this failure has added a burden to a Country that is already struggling to reach its International Poverty target on access to Water (MDG 2008).

Privatisation and Commercialisation of Water in the Developing World suffers from several flaws. Companies that took over contracts for Water Management soon realised the lack of short-term profitability of a sector that required large investment. Unable to fully offset their costs, the Companies failed to invest, with negative effects on citizens who faced increases in Tariffs and declines in access. Often Governments could not supervise Company Performance or hold them accountable, as proper Regulatory Frameworks were not in place.

In a Policy Brief released by the UNDP-sponsored International Poverty Centre (IPC) in 2008, Academics Dagdeviren & Robertson (2008) conclude that Water Supply Management Model of Commercialisation implemented in Zambia shares its origins with Privatisation elsewhere, and thus suffers from similar problems arising from the use of inappropriate Models of provision in Developing-country Contexts. They further argue that in practice, the Twin Policy Goals of ensuring Commercial viability and meeting Social Objectives have been shown to be incompatible, if not contradictory, under the new system. Dharmadhikar (2008) states that Zambia's liberalisation strategy has emphasised tariff rationalisation. However, it has failed to ensure full cost recovery and has further constrained affordability and accessibility. The correct Policy Prescription is Up-front Public Investment to renew and extend infrastructure.

So why has the Bank not warmed to this Policy Prescription? In analysing the Bank's Water Privatisation Agenda in India, Manthan (2008) blames the Bank's Structures for producing knowledge in failing to address fundamental problems in the Bank's Role in Development Research. He further argues that the Bank misses an opportunity to provide a clear signal for Donors to shift support to Developing Countries Research Institutions. Moreover, the Bank's process of generating knowledge is flawed and exclusionary. It excludes common people, and their Traditional Expertise and knowledge. The Bank's knowledge is frequently created by highly paid, often International, Consultants, who have little knowledge of local conditions. The knowledge creation is mostly directed towards arriving at a pre-determined set of policies - Privatisation and Globalisation. This knowledge creation is often selective, in that information, evidence or experiences that do not support these pre-determined outcomes are ignored (Dagdeviren & Robertson 2008 and Dharmadhikary 2008).

A research was conducted by the WB in Indian Water Supply Management options in 1998, supported by the Bank’s Public-Private Infrastructure Advisory Facility (PPIAF) about Water Privatisation in Delhi, and a Project for Water Restructuring in the Indian State of Madhya Pradesh. A review of the Research by Dharmadhikary (2008) finds that the Bank's Policies have cut people's access to Water, led to Environmental Destruction, resulted in displacement and destitution of people, stifled better options for Water Resource Management, have had huge opportunity costs, and privileged Corporate Profits over Social Responsibility and Equity.

Though the World Bank seems to be unwilling to counsel countries on how to reform Public Services, Developing Countries looking for advice can now use a new web site on the De-privatisation of Water Services (WB Press 2007). The so-called Water Remunicipalisation tracker provides information on different cities globally that have successfully taken back public control over water. It is a participatory initiative to which Global Activists can contribute. The site, promoted by a European NGO Corporate Europe Observatory and Transnational Institute (CEOTI), says "It's apparent that a Global Remunicipalisation wave is emerging." It indicates that "Approaches differ depending on local circumstances but undoubtedly lessons can be learned from the different but inspiring experiences of Remunicipalisation." That seems to be more than the Bank is willing to offer.

* 1. **Literature Review of Water Privatisation in Ghana.**

In Ghana, water is perceived to have spiritual dimension. Obeng (2009), argues that in both Ashanti and Christian tradition Water is linked to spiritual purity [*dwira ho*]. Hence, I would like to explore the benefits or other wise of the Water Privatisation Policy in relation to its sustainability in an urban user’s context. There have been two different ideological Governments since the early 1990s; the New Patriotic Party (NPP) Government (which is a capitalist oriented government) and the National Democratic Congress (NDC) Government (which pride itself as socialist democracy), and I am reviewing their various Water Policies within their Governance for the last twelve years. Antwi-Barfi (2002), argues that both of these Political Parties are on record for favouring Divestiture in the Water Supply Industry, hoping to withdraw its Investment Capital out of the Water System. However, this does not mean that both Governments by creating luck of national prosperity have been done with any malicious intent on their behalf (DIC, 2000).

Ghana embarked on the restricted Privatisation of its ailing Water Company, Ghana Water Company Limited (GWCL), with the help of a US$103 million grant from the World Bank (WB 2000). The five-year Urban Water Supply Project was aimed at providing a more reliable Water Supply for more than Eight million people in Ghana's main cities, including Accra and Kumasi. The total project cost is US$ 120 million. The Nordic Development Fund (NDF) provided US$5 million and the Government of Ghana also provided the remaining US$ 12 million (GoG 2005). The Project was to finance Network Expansions and Rehabilitations, focusing on increasing the amount of Bulk Water for distribution in Ghana’s urban centres and in extending Water Supply Services to low income areas (IRC 2005). Furthermore the Public-Private Partnership component was aimed at improving overall Service Delivery to Customers by engaging a private sector operator under a Management Contract to operate GWCL’s Water Systems throughout the Country for five years. Moreover, it was to enhance capacity building of GWCL, the Sector Ministry and the National Independent Regulator, Public Utilities Regulatory Commission (PURC), which has the responsibility for regulating Tariffs. However, not everybody was happy with the Sector’s Privatisation. Awoosah (2005), of ISODEC, argued for an open national debate on Private participation in the country’s Water Delivery Systems.

Water will in the near future become one of the most sorts after Natural Resources in the world (Allan 2010). The Volta Lake in Ghana is one of the biggest fresh water resources in the world and may become more important than an oil field and countries could even fight over it. As such, water, as the Americans say will flow uphill to money (Pearce 2007). The Ghana National of CAP of Water (2001) argued against Privatisation because of the latter assertion. It further claimed that the down ward spiral of the GWCL was mismanagement and not lack of financial capital. Hence any control of the States Water Supply to any Foreign Investor could allow the said Company to export the Natural Resources to raise Foreign Currency to award dividends to Foreign Shareholders (Antwi-Barfi 2002).

Furthermore, Grusky and Amenga-Etego (2002) recognises the important role that the Local Private Business Sector can play, and should play, in partnership with Local and National Communities, Ghanaian Artisans and experts and Local Government in ensuring Efficient and Effective Water Supply. Furthermore, the incompetence of the GWCL to provide proficient and valuable services to the masses resulted in public dissatisfactions and some loss of faith in the Organisation. Nonetheless, these ostensive and actual ruins can only be fittingly understood within the framework of the broader fiascos of Governance and Democracy over the years in the Water Sector (Adam 2005). It is doubtful that the suitable answers for these failures are Privatisation (NCAPW 2006). More so, the lack of Investment in the Water Sector vital to deliver adequate and inexpensive Water to all is recognised by critics like the Ghana CAP of Water (2000), Wateraid (2002) and Adam (2005). As the seriousness of this resource problem in itself questionable, it has nevertheless led to solutions ensuing in hefty dependency on Foreign Investors like the WD, IMF, etc. Thereby compelling the Country to agree to unrealistic conditionality’s that have restricted its choices for financing and reforming the Water Sector (Obeng 2009, McCaskie 2009 and Arhin-Tenkorang 2002).

By 2050, more than one billion urban citizens may face Water shortages if new infrastructures are not built or no fresh Water Management is undertaken (McDonald et al 2011). Furthermore, more than three billion may undergo related Water Deficiencies at least one month of every year. Without new Investment, urban places like Accra and Kumasi will suffer the most. In addition, expected urban Population Growth will account for a proportion of the Water shortage in Municipal areas, unless cities take adequate measures to mitigate these anomalies. However, McDonald et al (2011) only explored the availability of Water and not its quality and delivery. Moreover, instead of the Ghanaian Government relying solely on costly Infrastructure Solutions to enhance Water Supply, it can rather concentrate on measures to conserve Water in the Manufacturing and Agricultural Industries.

Finally, the Literature review explored the various Legislations that regulate the Ghana Urban Water Supply Policy. The Ghana Water Sector is under two Ministries and various Commissions, the main Ministerial Portfolios are; (a) Ministry of Water Resource, Works and Housing (MWRWH), and (b) Ministry of Local Government and Rural Development (MLGRD). Also the mandate for the regulation and checks are under these Organisations; (i) Water Resource Commission (WRC), (ii) Public Utilities Regulatory Commission (PURC) and (iii) The Environmental Protection Agency (EPA) (Frimpong-Ansah 1991).

Regulation is a key component in the liberalisation of the Water Sector. The Government liberalised the Sector to bring the essential competition to improve efficiency and expect Tariffs to fall (Domakyaareh 2009 and Bagbin 2010). Furthermore, it brings about additional Investments (Local and Foreign), raises Revenue for the country through Taxes, and reduces Government Subsidies and help in balancing the budget (GoG 2011). Moreover, as liberalisation has become Global, the Donor and lending Communities insists that the Government regulates the Water Industry as pre-conditions before projects are financed (WB 1990 and IMF 1991). Also Domakyaare (2009) and Wreako-Brobbey (2004) argue that regulation is intended to improve system reliability and productivity. Hence the Government’s aim is to create an enabling environment for competition to develop through its Water Sector reforms. Most of the various Agencies Regulations will be analysed in Chapter Three.

**Chapter Two**

1. **Methodology**
	1. **Research Aims, Objectives and Design**

This dissertation was conducted using Qualitative Research Method, by accessing both Secondary and Primary Data. The aim of this Method was to bring out the Research’s theme and Conceptual Framework (Heath 2005). Moreover, it was used to bring together and link the Fundamental and Conceptual base of the Policy of Water Privatisation, with its suitable Technique (Gregory et al 2009).

Conceptualising the Water Resource Management of Ghana takes the form of Politics (Local and International), the Society as a whole and the current prevailing Economic Factors. The conceptual water paradigms that shaped the Research werefirstly, the Political Ecology of the Nation. The question is ‘are the ecosystems science and economic versions of the policies management reflective of the prevailing underlying fundamentals? (Robinson 2009).Secondly, does the Society as a whole believe in the sustainability of the Privatisation Process? For this concept to work the Society has to be driven politically, culturally and historically towards the Policy’s vision. The existing Public Infrastructure should be recognised by the citizenry (Allan, 2009).The socio-economic development of the sector should shape the political discourse of the people who are meant to benefit from the Water Supply and Management of the Industry.Finally, the Economic Benefits were investigated. Will the Economic efficiency, allocation and productivity favour the urbanites or the Private Investors, to the detriment of Stakeholders?

* 1. **Data Collection.**

The data was collected through Primary and Secondary Sources. The Primary Data was composed through interviewing personnel of the Water Supply Sector (both Public and Private), Donor Agencies, Pressure Groups, Educationists and NGO Officials. The interviews were semi-structured and based on the Water Reform Policy Ethos, perceived success and failure and their future thoughts on the Reforms (Cloke 2009). Furthermore, there was a Questionnaire for sampled citizens of the Accra and Kumasi Metropolis that measured their views on the PSP Reform Policy and how Water Tariff or Pricing is affecting their Economic wellbeing. The Timeframe for the Distribution and Collection of the Questionnaires was five working days per Participant (Gregory 2009). By using Data that has already been collated and available for others to access, I was able to analyse other People’s Research, Thoughts and Opinions on the Subject of Water Privatisation (Limb & Dwyer 2001, Hoggart et al 2002 and Pryke et al 2003, 2005). The People and Organisations interviewed are illustrated in figure one below.

 Fig. 1 Checks and Balances between the State, NGOs, Entrepreneurs and Civil Society.



The diagram above illustrates how the various Organisations that I sourced my data from can check that each other is performing their duties diligently. The Government has the autonomy to make sure that each and every citizen has access to quality affordable clean drinking water. When it comes to Privatisation, Social Movements and Civil Society normally accuses the Government being in bed with the Private Sector, as such their main Ethos is to make sure that ordinary and poor urbanites have a right to what had been promised by the State and Investors. A full table detailing the Organisations full names and their purposes will be in the appendix.

Furthermore, eleven people were randomly selected in the Accra and Kumasi Metropolis as Participants for a Questionnaire to ascertain how they perceive Privatisation and the effects of water pricing on their economic wellbeing (Cloke et al 2009 and Bryman 2008). Out of this number four were from Accra and the other seven Participants were from the Kumasi area. The main questions asked were “where they lived, the number of people in their households, how they get Water into their homes (weather from the State or Private Organisations), how they understand Water Tariffs and does it affect their Water use and finally if PSP in the Water Industry have made a difference in their Water consumption” (Clifford 2003, Hoggart et al 2002 and Vaus 2002).The table below gives a synopsis of the outcome and it will be explored in detail in Chapter Three. Also a full list of the Questionnaire is attached as an appendix.

Table 1

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| No. Using SW | No. Using PW | Positive Effects Of PW | Negative EffectsOf PW | Price Effect on Water Consumption |
| 9 | 2 | 1 | 8 | 30% |

Most participants were using the State run Water Company (GWCL) as their main Water Supply. The two solely Private Customers were using a Bore Hole and Tanker Service respectively. Also, majority (8) thought there have been no major improvements in Water when the PSP Policy is concerned. Furthermore 30% of the people surveyed believed pricing have not changed their Water consumption patterns.

The Secondary Data was collected through Text Books, Published Articles, Electronic and Print Mass Media Articles and Expert Opinion Sources. There were already data available on the United Nations, WB, IMF, GoG, NGOs and other National, Regional and International Developmental Agencies, which demonstrated how the Privatisation bidding processes work, the allocation and management of Water supply in Municipal Areas (Cloke 2009, Gregory et al 2009 and Heath 2005).

* 1. **Materials.**

The main materials used in this Research Method were Note Books, Electronic Dicta Phone, Questionnaire Handout, Pens and Semi-structured Interview list (Dittoh 2006). The Notebooks were used in conjunction with the Dicta Phone, as I am interviewing Industry Experts, NGOs, etc, I was making hand written note in the Book and at the same time with their permissions recording the conversations (Bryman 2008, Desai & Potter 2006 and Butler 2010). Furthermore, Pens were some of the most important tools of my trade as a Student; I made sure I had more than three with me at any given time. Although, my interviews were Semi-structured, I still had a set of Questions that I asked almost all the people surveyed (Robson & Willis 1997).

Moreover, these materials helped me in recording the conversations, transcribed them and analysed them effectively. Without them, I would not have been able to put together such a vast form of information within the time frame of the Field Research and this Presentation – six weeks as fieldwork, another six weeks for analysing them and two weeks for putting it together as an Academic Research Work. These materials have been invaluable to my Research.

* 1. **Reflexivity and Ethics**.

As a Ghanaian living abroad, I encountered a lot of Practical, Philosophical and Ethical issues when I went and undertook my Field Research for the Dissertation (Dittoh 2006). Culture, Socio-economic and Politics are the main philosophical issues that hamper Researchers in under Developed Countries (Cloke et al, 2009). There is a culture of treating people who live overseas as affluent, and it was very problematic for me. The average person may not believe that my Research is meant to benefit the country as a whole and not just me. As such I had to show humility and compassion when interviewing people (Robson and Willis, 1997).

The research question is on the Economics of Water Supply, and Water flows upwards to money, as the saying goes (Pearce, 2007). Poverty being an endemic social canker had an impact on how a ‘Rich Westerner’ (as I was be perceived) will be able to understand the suffering of the poor masses. Most of the Questions were on the effects of Water pricing on people’s habits on Water sustainability. Respecting the society as a whole and exhibiting an understanding of local economics was a good antidote in quashing this bias (Devereux and Hempstead, 1992).

 The final philosophical problem I encountered and dealt with was that of Local Politics. Democracy is very young in Ghana – since 1992, and the Country is much polarised on Political and Tribal sentiments (Dittoh, 2006). Most government officials I dealt with tried to pursue me to show my political lineage - to which I did not, but sometimes staying neutral can be misconstrued as being from the opposition.

Finally, I will explore some of the ethical issues that I was confronted with on my Fieldwork Research (Warwick 1983). Giving of gifts or tipping in the form of cash or with ‘western goods’ – is seen as a norm for showing appreciation in Ghana. However, I had to circumvent this ‘ritual’ by making people aware that I am a student and my research is not being sponsored by the Government of UK, my College, an NGO or being undertaken for profiteering reasons. Another ethical issue that had to be managed properly was power and positioning between Researcher and the Researched (DARG, 2008). As the person with a perceived knowledge, I was sometimes held in awe by respondents and was given information that was not helpful to the Research. However, the Ghanaian Society respects with age, as such this balanced out my positionality when I was dealing with the older generation and I had to acknowledge their authority to get the best out of them.

Furthermore, I was aware of power gradients, between the Communities and myself and the Water Communities themselves. Hence I made sure every Person or Organisation I surveyed was given an information sheet (appendix 4) explaining the Aims and Objectives of the Research (Cloke et al 2009, Desai & Potter 2006 and Hoggart et al 2002). Secondly, I gave every participant a consent form (appendix 5) explaining that I was going to respect their privacies and anonymity. Also, I had to pay attention to the local lifestyles, positions and politics and try and differentiate it from prevailing worldviews. Lastly, familiarity with basic elements of language, socio-cultural values and practices as well as past experiences in the Ghanaian Society greatly assisted in my working across different spectrums (Cloke et al 2009, Dittoh 2006 and Clifford & Valentine 2003).

* 1. **Limitations and Difficulties**.

Time factor, Distance, Travelling Issues, Interviewees not wishing to sign consent forms and booking appointments to interview people and handing over and collecting Questionnaire were some of the confines and problems that were associated with my Research (Gregory et al 2010, Cloke et al 2009 and Hoggart 2002).

The main problem was getting the right time to meet and survey people. I had the time, but most of the time I had to be at people’s back and call. For instance, I had a scheduled appointment with a Gentleman at KWF, for 2pm on a Wednesday, he cancelled and the only time that he could be available for me was the following Friday, same time. But I already had an appointment with another person, which I had to cancel. Furthermore, I could be in a meeting with a Government Official, and the next thing I know, the meeting has been cancelled, because the Minister of State has requested an immediate meeting.

Furthermore, travelling and the distance between the two main Cities was a hindrance for my Project. The driving time between them is a minimum of four hours by road and very expensive to travel by air (£150) (Antrak Air 2011). Furthermore, most of the Water Sector Organisations are scattered around the Cities, the MWRWH is in central Accra, and whiles most of the NGOs offices are in the peri-urban areas. This problem limited the number of interviews I could do a week to only three.

Also, most of the Government appointees were reluctant to sign the consent forms, though I had promised not naming them. Also, one particular person from GWCL kept asking me to switch off my recorder any time he had to give me ‘sensitive’ information on Government’s Policy concerning the State Privatisation in the Industry.

Moreover, scheduling appointments were more difficult than I envisaged. The worse was finding participants willing to fill the Questionnaires; this was mainly due to illiteracy and contempt for ‘Foreign Donors’. Most people thought that people pretend to be from an NGOs, take their data and never goes back to help in whatever project they were surveyed in. However, I had to convinced people by showing them my introductory letter from King’s College University, my student ID card and Dissertation Proposal for them to understand that I am a student.

**Chapter Three**

1. **Question Answering.**

This chapter will analyse the results of the Primary Data I collected from the Water Ministry, the main Water Supply Company, the Regulatory Bodies, NGO Community on Water, International Donor Community, Input of Private Sector Activities and the reaction of the randomly surveyed people for the Questionnaire.

According to the Ministry Official I spoke to, the Government had embarked upon a programme to restructure the Water Sector in as far back as the early 1990s. This is to make the Industry more effective and efficient in the delivery of portable Water to the Country’s growing urban demand. Some of the key outcomes of the Policy enhancement are the creation of the WRC, PURC and EPA to add to the Ghana Standard Board as Regulatory Institutions. Furthermore, the Government created GWCL to handle Urban Water Delivery Systems, with the help of a Public Private Partnership Management Company (AVRL) to manage the Water Supply. This initiative was necessitated out of the GoG’s inability to mobilise adequate funds to invest in the Water Sector. Hence, the main tactical reason for introducing the Policy of PSP in the Industry were Water sustainability, attraction of Donor funding through efficient operations and access to Private Capital Rehabilitation, and renew, improve and expand the System through Private Management to meet increasing demand (MWRWH 2011).

However, out of several options available to the Government at the time, it chooses the Lease Option of a PSP Policy in 2000 (Joy News 2010). A Management Contract (MC) form of Private infusion was accepted and AVRL’s bid was accepted as a preferable management team to run the affairs for GWCL. The lease for AVRL in 2005 was for five years and was necessitated primarily by increased investment risk as a result of the International Financial credit squeeze of the period. Furthermore, in November 2005, the Government introduced a MC between the GWCL and AVRL to take effect from June 2006 for a five year period. Under the terms of the MC, the Grantor (GWCL) remained the asset holder with responsibility for asset expansion, development and monitoring of AVRL. AVRL’s mandate was to oversee the Operations and Customer Service Delivery of the 81 Water Urban Systems in Ghana (GoG 2011).

Additionally, the MC between GWCL and AVRL was not renewed in June 2011, in spite of some improvements that were achieved within the five year MC period. Some of their accomplishments were:

* The establishment of metre workshops to underline the importance of accurate measurement in the whole Organisation.
* The establishment of Geographical Information Systems (GIS) offices in Accra and Kumasi to better locate, plan and prevent disruptions in the pipelines.
* A Call Centre which has improved communication between operator and its customers (before that, there was no recognised customer service centre within the water sector).
* In terms of cash annual revenue increased from GHS 57 million to GHS 143 million with operating surplus growth from GHS 9 million to GHS 36 million per annum.
* They helped in increasing growth in water production to 15%, customer growth by 20%, with a 23% increase in sales, 250% surge in revenue and 400% growth in operational surplus.

However, in terms of the above laurels by the MC, a final review of the MC by an independent Consultant appointed by the WB and GoG, concluded that not much was achieved in the early years of the MC by AVRL (Operator), although some successes were recorded in the middle years, the service standards were not fully met (MWRWH 2011). Some of the failures were as follows:

* Non Revenue Water (NRW) still hovered around 50% (Up from 2% before the MC
* Failure to meet the Water Service Quality standard at most of the Headwork and almost all distribution networks
* Delays in customer accounts receivable
* Unimpressive targets for Treatment Plant Operations – 48% did not comply and no conclusions could be drawn from 26% of the treatment plants.

In assessing the overall performance of the Operator (AVRL), the Water Ministry considered the impact of extraneous factors that negated their performance. However, these factors also included critical performance indicators such as the lack of baseline data, delays by the Grantor (GWCL), in executing expansion and extension projects including the procurement of bulk and consumer metres and misunderstandings between Operator and Grantor in implementing the letter and spirit of the MC.

The Regulatory Bodies I interviewed laid out their mandatory and remits on the Water Supply Industry. The Regulatory Bodies surveyed included the PURC, WRC and WSMP. These Regulatory Bodies set laws, regulations and tariff in the Water Industry for uniformity and for Water Supply Companies to admonish their Social Responsibility (PURC 2011).

The PURC has taken the view that non-water related cost should not be factored into the Water Tariff calculations when setting Water Pricing for the Industry. This Policy does put pressure on the GWCL when it comes to recovery of cost. Furthermore, since 2005 it has put premium on the ability of consumers to pay and has consistently set lower Tariff that have no bearings on cost recovery by the Water Utility Industry, of which GWCL is the most affected (Mensah\* 2011). Hence, this has resulted in the Operator having financial difficulties over the years that have rendered it unable to implement most of its critical Water Projects to keep the system stout. Moreover, urbanites are living evidence to this unlucky circumstance as they are periodically subjected to a lot of water rationing as a result of system insecurity and volume supply.

However, PURC continues to observe and implement the standards of performance established by the licensing authority (WRC). Unless cost recovery Tariffs are set by the PURC, Ghana may not be able to attract the necessary Investment from the Private Sector into the Water Sector, thereby making its long term sustainability and growth very weak (Mensah\* 2011).

Also, the Water Resource Commission Act gives the Commission the Authority for the “Regulation, Management of the Utilisation of Water Resources in Ghana and for related matters” including the instigation, govern and co-ordinating of activities connected with the development and utilisation of Water Resources and the grant of Water Rights (Osei\* 2011). However, this could result in a potential conflict in the control and management of GWCL and the Ministry of Water Resources, Works and Housing in the control and monitoring of the industry. Hence, the GWCL and the WRC have signed an MOU agreeing to cooperate in management of the utilisation of the Water Resources of the country in general and Urban Water Supply in particular.

The International Donor Community (IDC) has also contributed to the Policy change in the Water Supply Industry since the 1990s, especially the World Bank, IMF, German Development Financial Group (KWF) and others.

The WB has been in partnership with the GoG, in pursuance of a PSP Policy Agenda for about ten years now, and it proposed a Management Lease Agreement (MC) to help the country finance its Water Industry for 15 years, but the GoG opted for a 5 year lease rather (Van\* 2011). The Bank supports the Country with two forms of assistance, namely Management and Investment in the Water Sector. Also all urban financial responsibilities of the Government are borne by the Bank, in the form of Technical Assistance, Investment and Management. The Investment Package for the Urban Water Supply by the Bank for the last 5 years has been $103 million, 75% of that goes towards Industrial Capital Investment and the remaining 25% for Technical Assistance and Services (Van\* 2011). The Bank argued that it supported the PSP initiative because the State run Water Corporation lacked good Management Skills, deprived of investment and no financial accountability.

Moreover, the WB argues that GWCL is still huge, considering its size and responsibilities, in respect of their achievements. It proposes longer term MC for any PSP initiative, stating that the 5 year contracts are too short – a 10 year MC will be more beneficial to the Country. Furthermore, it advocates for Decentralisation of the Industry, each Municipality should manage and find Investments for their own Water Resources, with over sight responsibilities being remodelled to fit into the Socio-economic Environment of every Community. Also, the Tanker Water Service providers and Bore-hole Companies should be properly regulated to make sure that the Government get its deserved Revenue from them through Taxation. However, WB argues against total Privatisation of the whole water supply industry. This will bring about lack of Social Responsibility from businesses, as their focuses would be entirely on finance.

On the other hand, other Developmental Donor Agencies like the German Development Agency (KWF) in Ghana advocates for a Social Capital aspect of PSP. The KWF is a German Bank that focuses on the enhancement of livelihoods in the developing World. It main ethos in Ghana is to supplement the Government’s Budget in the Water Supply Sector, it currently supports 38 Assembles within the Country (Agyeman\* 2011). It proposes Decentralisation with the Urban Water Supply Sector, with financial support from Micro-finance Companies. KWF itself supports the Urban Water Sector with Grants initially, but now focusing on Concessionary Loans. These Loans are targeted at Water Drilling Companies and Tanker Water Distribution Services. Furthermore, it argues for fair and realistic water Tariffs, people are willing to pay more for their Water delivery if it flows through their taps daily and it is safe.

The Coalition of NGOs in Water and Sanitation (CONIWAS) in Ghana argue for a total ban of PSP in the Water Industry. It vigorously fought against it in the early stages of the PSP Policy Formulation (Erzuah\* 2011). However, it accepts that PSP has come to stay and it also has ways by which the Private Sector can be monitored. It advocates for the improvement of the non-revenue Water within GWCL, also all profits should be re invested in the Water Sectors and not to be used as bonuses for ‘fat cats’. The GWCL should also concentrate on it Water Quality Paradigm, that is concerning itself with providing Quality Water to Consumers. Also, the Company’s Distribution Channels should be improved, from both the Operational and Management Portals. Furthermore, the group promotes efficient Management Skills from the GWCL, this will effectively minimise waste and improve productivity. Wastage of Water in the urban areas amount to 50% of the Water supplied through Reservoirs’ and Pipes of GWCL (Coniwas 2011). Moreover, the WB promised the Country $120 million for the first 5 years of PSP, but only delivered $103 million, and with over ninety Urban Systems in the Country, there was a short fall in investment capital in the Sector.

Nevertheless, other private Sector Organisations in the Water Industry have helped in sensitising the citizenry by educating them on developments within the Sector. Organisations like the IRC, RCN and TREND comes under the WASH umbrella, which is a learning and information flow Institutions, promotes advocacy and encourage other Organisations and Institutions to participate in the Water Sector Activities (Abu\* 2011). These Organisations brought to my attention the lack of basic data for the MC to work with, because Urban Water Delivery was not captured before 2005 by GWCL. Privatisation however added the element of statistics within the Public Water set up. Furthermore, they have set up National, Urban and Local Learning Alliance, which meets bi-monthly to discuss new information, improvements and difficulties within the Sector and disseminate it to the grassroots level. Also, they acted as peace makers when internal conflict threatened to derail the GWCL and AVRL partnership in the middle of the MC.

Lastly, the Questionnaire aspect of the results painted an interesting picture. Out of the eleven people surveyed, nine were willing to pay more for efficient, regularly and safe Drinking Water, even if it meant it will take a chunk off of their monthly incomes. Furthermore, 72% of the participants with fixed water metres preferred variable water metres, this was so because they felt they were being charged for Water that they never use. Moreover, they had to acquire expensive overhead tanks and other storage facilities to make sure that they had stored enough Water for when their taps stop running. Also, the waste in man hours being used in the process of storing the Water was immense; some of the people (54%) had to take off from work once a week, just as to get time to store their Water for the week. Finally, 9 out of the 11 people surveyed thought Privatisation have not had an impact on their Water consumption patterns. If anything, it had increased their Water Revenue, because they have to buy water from the Tanker Services as well as paying Domestic Water Tariffs.

**Chapter Four**

1. **Discussion**

To achieve the United Nations Millennium Development Goal (MDG) of providing clean Drinking Water to all by 2015, 78% of the people of Ghana need to gain access to portable Drinking Water (MWRWH 2011). By the end of 2009, about 59% of the Country’s citizenry had access to improved Drinking Water Supply. Currently, the importance of Water has assumed Global dimensions with far reaching Socio-political implications for many Urban Cities, Governments and the IDC. Furthermore, Allan (2010), Barlow (2008) and Bakker (2010) argue that the next 50 years of human existence on Earth are probably going to be dominated by Water Issues. However, between the 1960s and 2000s, the amount of Raw Water available to Ghanaians has reduced by a factor of three. This is as a result of Population Growth, Urbanisation, Reckless Disruption of the Water Infrastructure leading to Water Wastage and Pollution (Suttana & Loftus 2011, De Yong 2011 and Obeng 2009).

However, the Policy of PSP within the Urban Water Supply leaves much to be desired. Supplies have not been up to date with demand and the Management of Water Availability has also come under Public Inspection. It is estimated that the total demand for safe and clean Water in the 81 Urban Water Supply Systems operated by GWCL is 1,101,032m³ a day, however the actual daily water production hovers around 646,494m³ (MWRWH 2011). Hence the importance of Private Investments (financial and human capital) in the Water Sector to help plug some of these Water Production holes. Also, the Urban Communities in the Country could soon be running out of quality sufficient resources to provide adequate Portable Water in the future if the Sector is not properly managed to properly preserve water. Furthermore, the Government needs more investment to help in expanding the Kpong and Waija Water Reservoirs to increase Water Availability to the Urban Populace.

The Ghana Water Company Limited and Aqua Vitens Rand Limited were entered into a Management Contract by the Government of Ghana to help improve the water quality, supply and customer service of the urban water supply systems in the country. The GWCL acted as a Grantor whiles AVRL was meant to be the Operator, the MC was for a 5 year period (June 2006 – June 2011). The first year of the contract was harmonious, but the second and third years were very embittered (GoG 2011). The main bone of contention between these two companies emanated from their various duties set out in the MC. GWCL was to provide Capital Investment for AVRL to work with, by managing the Human Resource and Customer Service of the Water Sector. GWCL duties included Assets Management, Investment in Plant Expansion, and Treatment of Water Resources and Distribution of Water Supply to Consumers. Whiles the AVRL was to manage Customer Services, Tariff Mobilisation, and Human Resource Management and be the ‘face’ of the Water Supply Industry. However, both companies did not fully achieve its full objectives. According to the WB (2011), the Accra Metropolis needed 150 million gallons of water a day, but it was being supplied with only 90 million gallons a day within the MC period. Furthermore, there was a grant of $237 million for urban water treatment for the Accra Municipal area from the Chinese Government; however, only $71 million was accessed for Peri – urban Water Project within the framework of the MC.

Due to these conflicts and lack of achievement with the MC, the GoG decided against renewing the contract and set up a Special Purpose Vehicle to steer the affairs of the management of urban water resources for a year (MWRWH 2011). Therefore, in the interest of industrial harmony and the protection of the country’s natural resources, the Government in consultation with Industry Experts decided to take a holistic approach in the Urban Water Sector Management by setting up a SPV (Ghana Urban Water Ltd). The reasons for this SPV was because of insufficient need to institute a dispassionate process of auditing AVRL’s performance over the MC five year period, and also the nature of the terms and conditions of the MC that tended to frustrate the partnership between the two parties(Bagbin 2011).

In the context of the current situation, the Government considers the SPV as the most attractive, short term option which allows it to take stock and seamlessly manage the Operations of the 81 Urban Water Systems for a period of 12 months (Minister of State 2011). Furthermore, during this period GWCL will continue to play its role as the asset holder with responsibilities for asset expansion and development, whiles GUWL will be accountable for managing the operations of the 81 water systems. Moreover, the GoG will take a comprehensive look at the Water Supply Sector in general, and come out with a reviewed legal and institutional arrangement that will move the Urban Water Delivery forward in a more purposeful manner (GoG 2011).

For this reason, reforms in the Regulation Industry will require powerful and autonomous Regulatory Institutions to make it work. Moreover, it will require that Regulatory Agencies like the WRC, PURC and the WSMP must be sufficiently resourced to meet the trials of the industry (Domakyaare 2009). Furthermore, strong and adequately resourced institutions would result in investor confidence and lead to addition of the required private capital in the sector. However, GoG interference must be minimised to the barest minimum to allow for an even playing field for all PSP to avoid its failure.

Moreover, Tariff setting by the PURC cannot be ignored, and it should take into consideration consumers’ purchasing power when they are setting Tariffs. However, it has to set competitive rates and inform customers through their rate setting and monitoring of public utilities public awareness programme (PAP). Also, the PURC was set up to regulate and oversee the provision of utility services by public utilities to consumers and to provide for related matters, and to provide guidelines for rates to be charged for the provision of utility services. Therefore, when they are examining water rates, consumer protection should be envisaged. In addition, its mandate includes monitoring and enforcing standards of performance for provision of utility services, promoting fair competition among public utilities, and receiving and investigating complaints and settling disputes between consumers and public utility institution. Besides, they advises any person(s) or authority who wants to invest in any public utility in the company (PURC 2011).

The international donor community including the WB, KWF and the IMF advocates for breaking up the GWCL into two or more companies, depending on the current economies of scale of the country, or the Government should implement a full Decentralisation in the Water Supply Sector (WB 2011). Furthermore, the oversight responsibility of the Water Sector should be remodelled, with more private sector participation encouraged. Currently this is only one major PSP company in the urban water supply, other private investment should be allowed to partner other aspects of the GWCL, for instance in its industrial procurement department. Also the GWCL can enter into the wholly private water sector by providing water tanker services, bore hole drilling and the bottle water supply. After all these private companies providing tanker and bottled water services source their core products from the GWCL supply. Moreover, the un-tapped peri – urban settlements should be vigorously explored by the GUWL to maximise its revenue. These new urban communities do not have water distribution pipe lines, and source all their water needs via purely private needs. Hence, by investing in these areas the GUWL and the GWCL can increase their customer base and maximise profits for further investments.

On the other hand, the KWF promotes a Social Responsibility aspect of a PSP Policy in Urban Water Supply in Ghana. It argues that there is enough Financial Capital within the GWCL to be self sustainable, if it cuts wastage in its operations (KWF-GH 2011). Furthermore, the Operations and Maintenance Department of GWCL, if resourced properly can become effective in identifying leaks in pipe lines and hence repair them on time, thereby reducing waste. Moreover, GWCL could explore a micro finance Agenda when out sourcing for capital investment, this process can be achieved by accessing concessionary loans from its developmental partners, rather than going for high interest rate loans from the open market. Furthermore, the only water supply company can set up an economic task force with the company, whose sole aim will be to collect defaulted tariffs from persons and organisations that own them money. Rather than increasing tariffs periodically and collecting monies from the few people that pays for their services promptly. Finally, the task forces remit should include the pursuance of people with illegal water connections for their properties and industries for prosecution and fair recovery and punishment for others to stop doing same.

The various NGOs working in the Water Sector believes that consumers are not getting their money’s worth with the kind of service that is being provided to consumers by the GWCL (CONIWAS 2011). They argue that the water delivery and quality does not warrant the cost of water to consumers, the urban consumers pay $0.68 per cm³, which more than what people in developed countries pay. Also about 50% of water supply goes to waste via bust pipe lines, sabotaged equipments and non payment of water bills by customers (CONIWAS 2011). Hence, they advocate for efficient and effective management of Water Distribution Systems by both the GWCL and GUWL. Furthermore, transparency in Government new initiatives like the SPV is encouraged to boast public interest in the Urban Water Sector. Transitional arrangements for the GUWL out to be made available to the public for debate on its ethos, durations and details of the contract before its incorporated as a Limited Liability Public Company. More so, as Privatisation is about Capital Investment, why does the Government increase its budgetary allocation for the water sector? In 2010 3.2% of the budget allocation was for the water sector, out of that 94% of it was provided by the IDC, therefore the IDC can invest directly in the water supply sector without any private involvement, which can siphon off the needed money off to pay dividend to its Shareholders.

According to the Questionnaire Survey, majority of the urban populace are willing to pay more for their Water if they will be guaranteed a high quality, reliable and safe drinking water. Hence, people are investing more of their income and time on water than other utilities such as Electricity. Also, due to high rate of illiteracy in urban areas, consumers do not tend to understand the mechanism of Water Pricing, thereby increasing the reason for people not to pay their bills; to them after all they are not experiencing regular water flows through their taps. Moreover, the participants argued that Privatisation have not changed their Water consumption patterns; this is so because as natural resources that people cannot live without, the need to survive and keep a healthy life exceeds any form of monetary advantage that may arise from reducing its use.

* 1. **Conclusion**

In answering the question, this Research Project has explored the Policy of PSP in the Urban Water Supply System in Ghana and measured how satisfied customers are in paying competitive prices for water, if it is of high quality and delivery is reliable. In addition, the data collected and their analysis has shown the merits and challenges of Private Investments in wholly owned Government Corporations. Also, by using a Qualitative Method I was able to investigate other forms of the Policy being practiced in other parts of the world. Finally, it suggests that a pure Privatisation of the Water Supply Sector will not auger well for the people of Ghana.

The study has also shown that for the policy to succeed, all Ghanaians must actively participate in the improvement of the Sector by paying their Water Bills, not illegally connecting to Water Systems and reporting of any damages and breakages in pipes to the relevant Authorities as soon as possible.

However, Ghana is not only getting increasingly urbanised, but also it is confronted with growth and sprawl of peri-urban areas whose Water requirements needs to be met. Furthermore, to continue to provide services in an integrated, coordinated and holistic approach now and in the future, the GoG has to develop a comprehensive Strategic Development Plan that will incorporate Water Resource Management, Production and Distribution Plans for future PSP Policy Agenda.

Finally, more Quantitative Research should be conducted in the Water Sector to measure the Effects and Impacts of Privatisation in the Ghanaian Water Supply Sector.

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**Appendix 1**

**Data Collection Table.**

|  |  |  |
| --- | --- | --- |
| Name of Organisation | Contact Person(s) | Address |
| German Development Co-operation (kfw)  |  (Programme Manager) | [www.kfw.de/ghana](http://www.kfw.de/ghana) |
| Ghana Coalition of NGOs in Water and Sanitation |  (Executive Director) | [www.coniwas.org](http://www.coniwas.org)coniwas@yahoo.com |
| Ghana Water Company Limited |  (Chief Manager – PR) | [www.gwcl.com.gh](http://www.gwcl.com.gh) |
| International Water and Sanitation Centre (IRC) |  (Country Director, Ghana) | [www.irc.nl](http://www.irc.nl) |
| Kwame Nkrumah University of Science and Technology (Kumasi – Ghana) |  (Dept. Of Civil Engineering) | [www.knust.edu.gh](http://www.knust.edu.gh) |
| Ministry of Water Resources, Work and Housing – Ghana  |  (Ag. Chief Director)Abraham Otabil(Head, PR) | [www.mwrwh.gov.gh](http://www.mwrwh.gov.gh) |
| National Coalition Against the Privatisation of Water (NCAP) – Ghana  |  (Executive Trainer) | CONIWAS Building, Accra |
| Public Utilities Regulatory Commission (PURC) – Ghana |  (Manager, Water Inspectorate) (Water Directorate) (Water Directorate)  | [www.purc.com.gh](http://www.purc.com.gh)info@purcghana.com |
| Research Centre Network |  (National Co-ordinator) | Dzorwulu, Accrarcnghana@gmail.com |
| The World Bank |  (Water Director) | [www.worldbank.org/ghana](http://www.worldbank.org/ghana) |
| Training Research and Networking for Development |  (Managing Director) | Wash House, Accra |
| Water and Sanitation Monitoring Platform (WSMP) |  (Team Leader) | [www.wsmp.org](http://www.wsmp.org) |
| Water Resource Commission  |  (Head of Water) | [www.wrc.com.gh](http://www.wrc.com.gh) |

**Appendix 2**

**Questionnaire**



**Appendix 3**

**INFORMATION SHEET FOR PARTICIPANTS**

*REC Reference Number:* **KCL/10 – 11 \_ 449 MSc Environment and Development.**

**Title of study: What Impacts Has Private Sector Participation had on the Delivery of Urban Water Services and Customer Satisfaction and Willingness to Pay for these Services in Ghana?**

We would like to invite you to participate in this postgraduate research project. You should only participate if you want to; choosing not to take part will not disadvantage you in any way. Before you decide whether you want to take part, it is important for you to understand why the research is being done and what your participation will involve. Please take time to read the following information carefully and discuss it with others if you wish. Ask us if there is anything that is not clear or if you would like more information.

* To find out the advantages and disadvantages of water privatisation in urban Ghana.
* I am recruiting Policy makers, Stakeholders, Consumers and NGOs in the water sector.
* If you decide to take part, I will schedule a one – one interview with you.
* Your identity will be protected by not naming you in the thesis.
* Copies of the report will be provided on request to participants.
* To ensure compliance with the Data Protection Act 1998 participants, your personal details will be deleted after transcription of the interview.
* You can contact me via email apashi33@gmail.com, when/if the need arises.

It is up to you to decide whether to take part or not. If you decide to take part you are still free to withdraw at any time and without giving a reason.

If this study has harmed you in any way you can contact King's College London using the details below for further advice and information: Prof Tony Allan or the Dean, School of Social Science and Public Policy, Geography Department, King’s College, London (Strand Campus).

* In addition to withdrawing yourself from the study, you may also withdraw any data/information you have already provided up until it is transcribed for use in the final report on 1st September 2011.
* A decision to withdraw at any time, or a decision not to take part, will not affect the standard of care you receive.
* If you agree to take part you will be asked whether you are happy to be contacted about participation in future studies. Your participation in this study will not be affected should you choose not to be re-contacted.
* Interviews will be recorded, subject to your permission. Recordings of interviews will be deleted upon transcription.
* If you do decide to take part you will be given this information sheet to keep and be asked to sign a consent form.
* As participation is anonymous it will not be possible for us to withdraw your data once you have returned your questionnaire.
* If you do decide to take part, please let us know beforehand if you have been involved in any other study during the last year.

**Appendix 5**

**CONSENT FORM FOR PARTICIPANTS IN RESEARCH STUDIES**

**Please complete this form after you have read the Information Sheet and/or listened to an explanation about the research.**

**King’s College REC Ref: KCL/10 – 11 \_449 MSc Environment and Development.**

**Title of Study: What Impacts has Private Sector Participation had on the Delivery of Urban Water Services and Customer Satisfaction and Willingness to Pay for these Services in Ghana?**

**Thank you for considering taking part in this research. The person organising the research must explain the project to you before you agree to take part. If you have any questions arising from the Information Sheet or explanation already given to you, please ask the researcher before you decide whether to join in. You will be given a copy of this Consent Form to keep and refer to at any time.**

**Please tick or initial**

* **I understand that if I decide at any time during the research that I no longer wish to participate in this project, I can notify the researchers involved and withdraw from it immediately without giving any reason. Furthermore, I understand that I will be able to withdraw my data up to the point of publication (1st September 2011).**
* **I consent to the processing of my personal information for the purposes explained to me. I understand that such information will be handled in accordance with the terms of the Data Protection Act 1998.**

**Participant’s Statement:**

**I ­­­­­­­­­­­­\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**agree that the research project named above has been explained to me to my satisfaction and I agree to take part in the study. I have read both the notes written above and the Information Sheet about the project, and understand what the research study involves.**

**Signed Date**

* **The information you have submitted will be published as a report and you will be sent a copy. Please note that confidentiality and anonymity will be maintained and it will not be possible to identify you from any publications.**
* **I agree to be contacted in the future by King’s College London researchers who would like to invite me to participate in follow up studies to this project, or in future studies of a similar nature.**
* **I agree that the research team may use my data for future research and understand that any such use of identifiable data would be reviewed and approved by a research ethics committee. (In such cases, as with this project, data would not be identifiable in any report).**
* **I consent to my interview being recorded.**