



The GLOWA Volta Project
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Mapping the Water Sector of Ghana

An Inventory of Institutions and Actors

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Abbreviations and acronyms

ADB	African Development Bank
ADF	African Development Fund
AFD	Agence Francaise de Développement
AWSDB	Association of Water Development Boards (Northern Region)
BPEMS	Budgeting and Public Expenditure Management Systems
CBO	Community Based Organisation
CEA	Canadian Executing Agency
CIDA	Canadian International Development Agency
CONWAS	Coalition of NGOs in the Water and Sanitation Sector
CORANET	Community Radio Network
CSPS	Centre for Social and Political Studies
CWSA	Community Water and Sanitation Agency
CWSD	Community Water and Sanitation Division
CWSP	Community Water and Sanitation Programme (WB, IDA)
DA	District Assemblies
DACF	District Assemblies Common Fund
DANIDA	Danish International Development Agency
DCE	District Chief Executive
DISCAP	District Capacity Building Project
EPA	Environmental Protection Agency
EIA	Environmental Impact Assessment
ERP	Economic Recovery Programme
ESA	External Support Agency
FASDEP	Food and Agricultural Sector Development Strategy
GIDA	Ghana Irrigation Development Authority (MoFA)
GLOWA	Global Change of the Water Cycle
GMA	Ghana Meteorological Agency
GoG	Government of Ghana
GPRS	Ghana Poverty Reduction Strategy
GWCL	Ghana Water Company Limited (successor to GWSC)
GWSC	Ghana Water and Sewerage Corporation
HDW	Hand-dug wells
HIPC	Highly Indebted Poor Countries
HSD	Hydrological Services Department (MWH)
ICB	International Competitive Bidding
IDA	International Development Association (WB)
IDWSSD	International Drinking Water Supply and Sanitation Decade
IGIP	Ingenieur Gesellschaft für Internationale Planungsaufgaben (EU)
IMF	International Monetary Fund
ISODEC	Integrated Social Development Centre

ISSER	Institute for Statistical Social and Economic Research
IUCN	International Union for the Conservation of Nature
IWMI	International Water Management Institute
IWRM	Integrated Water Resources Management
KVIP	Kumasi Ventilated Improved Pit
L.I.	Legislative Instrument
MDA	Ministries, Government Departments and Agencies
MES	Ministry of Environment and Science
MFEP	Ministry of Finance and Economic Planning
MIS	Management Information System (CWSA)
MLGRD	Ministry of Local Government and Rural Development
MOFA	Ministry of Food and Agriculture
MTEF	Medium Term Expenditure Framework
MWH	Ministry of Works and Housing
NCB	National Competitive Bidding
NCWSP	National Community Water and Sanitation Programme
NORWASP	Northern Region Water and Sanitation Project (CIDA)
O&M	Operation and Maintenance
PIM	Programme Implementation Manual
PIP	Performance Improvement Plan
PNDC	Provincial National Defence Council
PO	Partner Organisation
PSP	Private Sector Participation
PPPH	Public Private Partnership in Hand Washing
PURC	Public Utilities Regulatory Commission
RWSSI	Rural Water Supply and Sanitation Initiative (ADF)
SIP	Strategic Investment Programme
UAFW	Unaccounted-for Water
WATSAN	Water and Sanitation Committee
WB	World Bank Group
WQ	Water Quality
WRC	Water Resources Commission
WRI	Water Research Institute
WRIS	Water Resources Information System
WSDB	Water and Sanitation Development Board
WSRP	Water Sector Rehabilitation Project (WB)
WSSPS	Water and Sanitation Sector Programme Support (DANIDA)
WTP	Willingness to pay

1. Preface

The sub-project “Institutional Analysis” of the GLOWA Volta Project (GVP) has been charged with analyzing the constraints to the implementation of official policies, regulations and laws and the conditions of effective water resources management at the local, national and international levels.

One of the subproject’s tasks has been the production of an “institutional map” of the water sector of Ghana. An overview was needed to serve as a basis and to provide a framework for case studies about interrelations among selected actors and institutions. In the process of our attempts at “mapping” the sector we became aware of the extreme complexity of the field. The list became longer and longer, and instead of presenting a map we decided to produce this comprehensive inventory that may also be useful for interested stakeholders and policy makers in Ghana.

The diagram - a “map” - on page 9 gives a concise overview of the most relevant – to our knowledge – categories of actors and institutions in the Ghanaian water sector.

The tables in the following sections give a descriptive overview of institutions and actors in the water sector of the Republic of Ghana and about their official missions. This overview will be matched by case studies to provide closer insights into the relationships and interdependencies in the sector. In the course of the phase of “mapping” a decision was taken to conduct case studies on the performance and interactions among the following selected actors and related institutions: the Community Water and Sanitation Agency (CWSA), the Ghana Water Company Ltd. (GWCL), the Water Resources Commission (WRC), and the Ghana Irrigation Development Authority (GIDA). Concomitantly, support activities of the World Bank Group, Danish International Development Agency (DANIDA), Canadian International Development Agency (CIDA), the German Kreditanstalt für Wiederaufbau in cooperation with the Gesellschaft für Technische Zusammenarbeit (KfW/GTZ) and some NGOs were to be closely considered. This selection was based on considerations of a) relative political importance in the sector, b) general relevance to the sub-sectors of drinking water supply and irrigation, the subproject’s foci in the context of the GVP, and c) accessibility for our researchers. The case studies will provide further analytical depth to the map and facilitate analyses of the potentials and constraints of the most important of the institutions and actors listed here. – In the context of the expected publications on those cases some of the network(s) behind this simple map will be analysed.

The overview of the Ghanaian water sector presented here is not to be considered as exhaustive. It is in a continuous process of compilation and differentiation as research proceeds. The overview further shows that the water sector cannot be neatly separated from other sectors; there are many interfaces shared with actors and institutions from other sectors such as agriculture and environment.

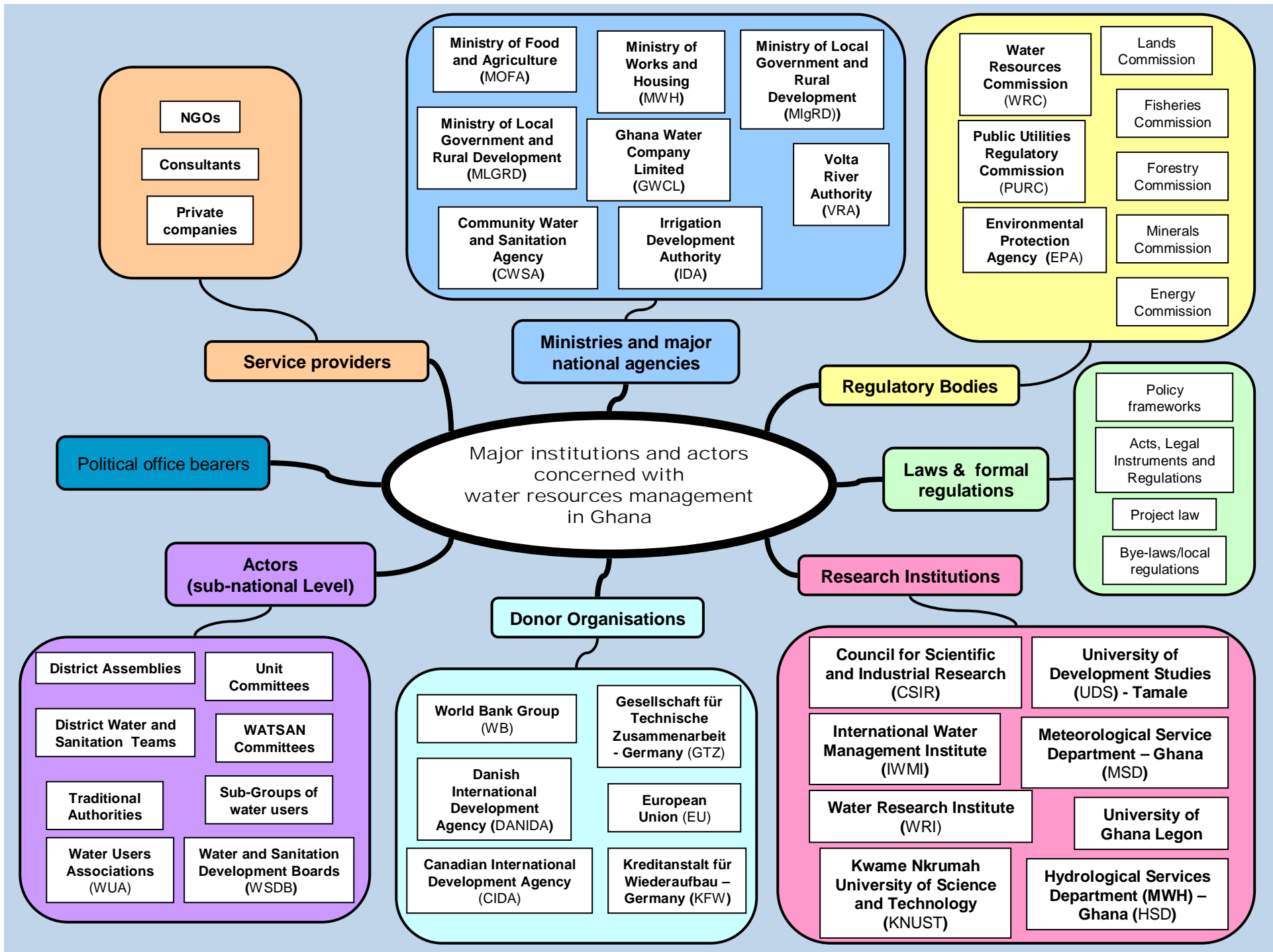
The success of the institutional analysis of the water sector in Ghana depends on the concerted efforts of a number of researchers. The members of the team involved in the mapping exercise at the national level are Veronika Fuest, Ben Ampomah, Stefan A. Haffner and Elaine Tweneboah. At the local level, in-depth case studies are being conducted by Irit Eguavoen, Marlis Gensler, Wolfram Laube and Eva Youkhana. Some of the results of their work, and the issues that they raise, will by and by be fed into the institutional and actors' map and ensuing analyses. Due to considerations of intellectual property rights, however, the major part of the results generated at the micro-level will become available only after completion of the Ph.D. theses from 2005 onwards.

This document is based on research conducted in the years 2002 to 2005 in the framework of the GLOWA Volta Project.¹ We apologize for any major gaps and biases that the user may discover. Please feel free to inform us about any critique and amendments that come to your mind.

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2. Institutions

2.1. Introduction to *institutions*

Institutions are defined as written and unwritten rules or principles that govern and constrain behaviour, thus facilitating assess what others will do and giving individuals orientation and security in their social dealings. Institutions impose restrictions on human behaviour by defining legal, moral, and cultural boundaries setting off legitimate from illegitimate activities. Theoretically, in Ghana institutions comprise

1. statutory laws, legal instruments and regulations
2. national policy frameworks,
3. bye-laws of District Assemblies or local groups,
4. local law / self-regulation by either explicit or implicit rules and norms,
5. “project law” including procedures of financial disbursement and procurement.

Furthermore, institutions include market frameworks and relationships. This constitutes a cross-cutting issue which is taken up wherever suitable in the course of our analyses. For example, market relations affect the willingness to pay of communities and social sub-groups as well as donor activities in the domain of technology transfers.

2.2. Public Laws and Legal Instruments

Reference to actors	Terms and Abbreviations	Missions and responsibilities
Civil Service	Civil Service Law 1993 (PNDC Law 327)	To be specified with respect to regulations concerning employees of the GWCL and CWSA as well as of District Assemblies. GWCL and CWSA operate under the Public Service not Civil Service. The Civil Service Law regulates employees of the main Ministry and its departments like Hydrological Services Department.
Community Water and Sanitation Agency (CWSA)	The Community Water and Sanitation Agency Act 1998 (Act 564)	Formation of CWSA and specification of its mandates (GoG 1998). The CWSA Act was passed by Parliament in December 1998. The Act was approved by the President in the same year (MWH - CWSA 2002).
Construction	National Building Regulations	To be specified. Relevant for settlements on the banks of waters and for rain harvesting.
Council for Scientific and Industrial Research (CSIR)	Council for Scientific and Industrial Research Act 1996 (Act 521)	Defining the present mandate of the CSIR. The distinctive features of the 1996 Act which distinguishes it from previous legislation on national scientific research are the emphasis accorded private sector concerns and the introduction of market principles into the Council's operations through the commercialisation of research. The Council, in this connection, is expected to generate part of its income through the sale of its products and services and to institute a system of contract research.

Environmental Protection Agency (EPA)	Environmental Protection Agency Act 1994 (Act 490)	The Environmental Protection Agency Act, 1994 (Act 490) turned the Environmental Protection Council into an Agency having, inter alia, regulatory and enforcement roles.
	Environmental Assessment Regulations 1999 (L.I. 1652)	Defining the procedures, under EPA Act 490, for acquiring Environmental Permits and conducting Environmental Impact Assessments. Undertakings in the domains of agriculture, fishing and trapping, logging and forestry, drainage and irrigation, housing, industry, mining, crude oil and natural gas, quarries and sand pits, manufacturing, beverages, rubber and plastic products, leather and textile products, construction, power generation and transmission, waste treatment and disposal, water supply, etc. which have or are likely to have adverse effects on the environment of public health have to be investigated under these regulations.
Forestry Commission (FC)	Forestry Commission Act 1999 (Act 571)	The basis for the current Forestry Commission for better coordination and implementation of the policy. Hosted by the Ministry of Lands and Forestry. Repealing the Forestry Commission Act (Timber Manual, 1998).

Ghana Irrigation Development Authority (GIDA)	Supreme Military Council Decree 85: Irrigation Development Authority Decree 1977 (S.M.C.D. 85)	Establishing the GIDA as a body corporate to formulate and execute plans and programmes for the development of irrigation, livestock improvement and fish culture. Land use planning including the provision of housing and other social amenities in the project areas.
	Irrigation Development Authority Regulations 1987 (L.I. 1350)	Establishing and defining the roles of Project Managements, Land Allocation Committees, Agricultural Committees, Farmers' Associations, Disciplinary Committees, Appeals Committees, and Internal Auditors, for each project to ensure the implementation of GIDA's policies. Representation in the management of various Technical Departments and Farmers' Associations. The Project Manager and the employees of the project are appointed by the GIDA.
Government of Ghana	Fourth Republican Constitution of the Republic of Ghana 1992	The Constitution of Ghana legislature: parliament, political parties and the local government - the District Assembly, which sees to the enactment of laws and policies. The Judiciary consists of the Superior Courts of Judicature comprising (i) The Supreme Court; (ii) The Court of Appeal; and (iii) The High Court and Regional Tribunals, of the Judicial Council and the Attorney-General. (GoG 1992). - Article 269 seeks to protect water resources by setting up a Commission to regulate, manage and co-ordinate government policies in relation to it. (http://www.ghana.gov.gh/governing/index.php)

Land	Office of the Administrator of Stool Land Act 1994 (Act 481)	Revenue drawn from stool lands is managed by the Office of the Administrator of Stool Lands, under the overall control of the Lands Commission.
	State Lands Act 1962 (Act 125)	The authority to acquire land for the public interest is vested in the President. The Act provides for a process of compulsory acquisition, widely practiced after Independence, where the State takes land by powers of eminent domain and pays no compensation unless required to do so by a Court ruling. This legal possibility has been widely used by most public agencies, including GWCL and its predecessor (GWSC). - Although the 1992 Constitution is much more human-rights oriented, it does not repeal this Act but only supersedes it (GIOVANNETTI 2004).
Local Government	Local Government Act 1993 (Act 462)	Defining the actors in the decentralisation process: the Regional Co-ordinating Councils, the Metropolitan, Municipal and District Assemblies, and their committees. Specifying their rights and duties such as district budgets, planning functions, provision of fire service, licences, bye-laws, acquisition of immovable property, financial matters, rates, legal proceedings, penalties, audits, privileges and immunities etc. For details see (GoG 1993).
	Legislative Instrument, Local Government (Establishment) Instrument 1991 (L.I. 1514)	For the establishment of Urban, Zonal and Town Councils and of Unit Committees. For details see (GoG 1991).

	<p>Local Government Law 1988 (PNDC Law 207)</p>	<p>Set up a financial base for the District Assemblies (DA): local taxes such as rates, fees, levies, and licenses; bank borrowing within Ghana for investment; investment income; central government development grants; shares of revenues collected by the central gov. on specific natural endowments (e.g. stool lands); and shares of 7 central gov. revenues which were ceded to the DAs.</p>
	<p>Local Government Service Act 2003 (Act 656)</p>	<p>The Local Government Service Act (Act 656) was passed at the end of 2003 with the intention of regularising some of the staff problems at the district level (see District Assemblies). Its purpose is to establish a Local Government Service, with a governing body (Council), whose object was to secure the effective administration and management of local government in the country. Functions of the Service are to provide technical assistance to District Assemblies and Regional Co-ordinating Councils to enable them to effectively perform their functions in accordance with the Constitution and the Local Government Act, 1993 (Act 462). They are to conduct organisational and job analysis as well as management audits for the Regional Co-ordinating Councils and the District Assemblies in order to improve the overall management of the Service, and to assist the Regional Co-ordinating Councils and the District Assemblies in the performance of their functions. – Precondition for the establishment of decentralised Works Departments within DA structures.</p>
	<p>Local Government (Accra Metropolitan Assembly) Establishment Instrument 1995 (L.I. 1615)</p>	<p>Establishing a Metropolitan Assembly (MA) in Accra to perform all the functions conferred on DAs by the Local Government Act, 1993. Foundation for the establishment of the Accra Metropolitan Authority (AMA) which has become the Executive Committee of the Assembly (GoG 1995).</p>

Minerals and Mining	Minerals and Mining Law 1986 (PNDC Law 153)	Specifying ownership, administration, procedures of obtaining mineral rights for reconnaissance, prospecting or mining, and other licences, mining leases, suspension of mineral rights, minerals prices, etc. Licence for diverting water for mining or other industrial purposes could be granted by the Secretary of the PNDC. - Every mineral on the territory of Ghana is the property of the State (GoG 1986).
	Minerals And Mining (Amendment) Act 1994 (Act 475)	Adapting the Law of 1986, however, without any respect to water resources.
Procurement	Public Procurement Act 2003 (Act 663)	Principles referring to transparency and market access and to participation in international competition. This could affect the procedures and outcomes of the PSP in the water sector.
Public Utilities and Regulatory Commission (PURC)	Public Utilities and Regulatory Commission Act 1997 (Act 538)	Established the Public Utilities and Regulatory Commission (PURC) as an independent regulatory body to determine and implement cost effective tariffs for potable water and electricity.
Volta River Authority (VRA)	Volta River Development Act 1961 (Act 46)	Founding the VRA, whose primary function is to supply electrical energy for industrial, commercial and domestic use in Ghana.
	Volta River Development Act Amendment Decree 1967 (N.L.C.D. 211)	To be specified

	Lake Traffic Regulations (LI 862)	Introduced in 1973 by VRA which seeks to regulate and control the types and mode of transportation on the lake. These regulations cover licensing, policing and safety measures on the lake. A Lake Traffic Control Unit has been established within VRA to enforce LI 862, in collaboration with the Ministry of Roads & Transport.
Water Resources Commission (WRC)	Water Resources Commission Act 1996 (Act 552)	Act of Parliament (ACT 522 of 1996) to establish the Water Resources Commission (WRC) with the mandate to regulate and manage the country's water resources and to coordinate government policies in relation to them. On principle there is no private ownership of water in Ghana, but the President, or anyone so authorised by him, may grant rights for water use. Though the WRC Act vests the ownership of water resources in the state, it recognises all existing uses of water prior to the enactment of the WRC Act. However, all existing claims to water uses were supposed to be regularised by the Commission within twelve months after the coming into force of the Act. The WRC Act also provides for certain categories of water uses which are exempt from the requirement of permit. - The Act repealed Part I and II of the 'Rivers Ordinance Cap 226 (1903). Part III of the Ordinance is, however, still operative relating to the provisions on 'licensing for dredging, steam vessels and the power to issue regulations to protect and improve navigability and fishing.
	Water Use Regulations 2001 (L.I. 1692)	Issued by the WRC specifying the procedures to obtain water use permits (application, investigation, decision, objections, EIA requirements...) and modalities of administrative fees as well as raw water charges. Exemptions from the duty to obtain permits: water abstracted by manual means or by mechanical means where abstraction level does not exceed 5 litres/second, subsistence water use for land areas not exceeding 1 hectare, subsistence aquaculture water use not exceeding 1 hectare. – Adopted by Parliament in Dec. 2001 (WATER RESOURCES COMMISSION 2003).

2.3. Policy Frameworks and Related Development Programmes

Terms and Abbreviations	Missions and responsibilities
<p>Civil Service Performance Improvement Programme (CSPIP)</p>	<p>Civil service reform affects each Ministry, department or agency, which are expected to undertake “reviews of their role, functions and objectives, informed by beneficiary assessments to find out how they are perceived by their clients” (27). They have to prepare a performance improvement plan (PIP) with verifiable objectives. Local consultants have trained MDA staff and facilitated them through the process. This is linked to performance contracts setting out verifiable objectives for the organisation as a whole, cascading down into similar agreements with individual units.</p>
<p>Comprehensive Development Framework (CDF)</p>	<p>Policy framework promoted by the World Bank http://www.ghanacdf.org.gh/ and http://www.worldbank.org/</p>
<p>Decentralisation Policy</p>	<p>In the 1980s decentralisation became a common ground in which governments and the World Bank began to formulate neo-liberal reform policies, accountability, transparency and divestment. Ghana’s decentralisation commenced in 1988, the policies “have been implemented under structural adjustment in conjunction with the devolution of State enterprises and economic liberalisation” (AMANOR & ANNAN 1999:13) - Explicit objectives of the local government reform programme include empowerment, popular participation, accountability, effectiveness, efficiency, responsiveness, decongestion of the national capital, development and slow rural-urban migration (AYEE 1997). The water sector has been affected by the policy of decentralised management of urban services.</p>

<p>District Capacity Building Project (DISCAP)</p>	<p>DISCAP (www.discap.org) is a five-year local governance and water management initiative strengthening 24 district governments across northern Ghana. Financed by CIDA and the Ghana Ministry of Local Government and Rural Development, DISCAP focuses on five areas of innovation: water and sanitation, particularly in small towns; gender equality; governance and technical training; monitoring and evaluation; and information technology. DISCAP has set up a network of District Gender Desk Officers across the country's three northern regions. The officers advocate for development plans that reflect women's priorities for education, health and water supply for their communities and their families. More than 20 District Assemblies have been trained to employ district gender strategies.</p>
<p>District Assemblies' Common Fund (DACF)</p>	<p>Established in 1993, under section 252 of the Constitution of 1992. No less than 5% of total revenues of GoG are to be allocated to the DAs for development. The DACF is shared on the basis of a certain formula (Ayee 1997a: 96-97). Most of the revenues were consumed in meeting recurrent expenditures. In 1998 earmarking 35 % of the Common Fund for specific purposes was introduced: 20 % for support of productivity, income generation and provision of employment, 10 % for supporting community dev. Initiatives, and 5 % for poverty reduction and rural housing improvement (AMANOR & ANNAN 1999). - District planning: 5-year plans (1996-2000, 2001-2005,...) and annual plans. In practice, most district spending has been controlled by line ministry staff, discussion of future fiscal decentralisation continues. According to the GPRSP (GoG 2003: 134), among the targets for 2003-2005 was increasing the DACF to 7,5 %.</p>
<p>Economic Recovery Programme (ERP)</p>	<p>The ERP (1983-1993) involved “obtaining external support to overcome balance of payment difficulties, control of government expenditure and balancing of the budget; floating of the exchange rate and auction of foreign exchange; removal of government subsidies on the prices of goods and services; the full or partial recovery of costs on social services like health and education; the liberalisation of imports; 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 except in strategic areas of the economy; promoting the private sector as the engine growth of the economy etc. These were accompanied by administrative and political reforms aimed at decentralisation and devolution of power from the central government to the District Assemblies and “grassroots” (GoG/MWH 1999: 9)</p>

<p>Food and Agricultural Sector Development Strategy (FASDEP)</p>	<p>MoFA developed this strategy in order to meet deficiencies of previous programmes. Before, MoFA had formulated the Accelerated Agricultural Growth and Development Strategy (AAGDS), which did not address the necessity to “ensure the availability of timely, reliable and relevant data on agriculture and information on agriculture” and to “strengthen the institutional capacity” of MoFA (IDA & MOFA 2003: 4-5).</p>																		
<p>Ghana Poverty Reduction Strategy (GPRS)</p>	<p>The basis for the budgets since 2002, HIPC debt relief. IMF funds, support by an IDA programme, implying extensive donor dialogue. Revised long-term framework to modify Vision 2020. Basis for the current 5-year-plan. The GPRS has a wide range of targets, and whether targets can be met depends on adequate financing. Access to potable water and sanitation are considered to be crucial to achieving health outcomes and sustained poverty reduction. New focus on “... acceleration of rural water provision, with emphasis on guinea worm endemic communities and regions that have least benefited from new investments in the past decade, effective management of urban systems, safe liquid and solid waste management, capacity building for environmental health”.</p> <table border="1" data-bbox="595 751 1783 983"> <thead> <tr> <th>Safe water and sanitation targets</th> <th>2000</th> <th>2005</th> </tr> </thead> <tbody> <tr> <td>Rural population with access to safe water</td> <td>40 %</td> <td>54 %</td> </tr> <tr> <td>Rural population with household latrines</td> <td>15 %</td> <td>25 %</td> </tr> <tr> <td>Urban population with access to safe water</td> <td>70 %</td> <td>78 %</td> </tr> <tr> <td>Urban population with household latrines</td> <td>34 %</td> <td>45 %</td> </tr> <tr> <td>Population with unsafe method of solid waste disposal</td> <td>91 %</td> <td>75 %</td> </tr> </tbody> </table> <p>Investments “in deprived regions will be strengthened, including public-private-NGO partnerships” (GoG 2003:112).</p>	Safe water and sanitation targets	2000	2005	Rural population with access to safe water	40 %	54 %	Rural population with household latrines	15 %	25 %	Urban population with access to safe water	70 %	78 %	Urban population with household latrines	34 %	45 %	Population with unsafe method of solid waste disposal	91 %	75 %
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Population with unsafe method of solid waste disposal	91 %	75 %																	

<p>Land Conservation and Smallholder Rehabilitation Project II (LACROSEP)</p>	<p>This five-year IFAD-initiated project in the Upper-East Region is designed to extend the benefits of dam rehabilitation and strengthen the capacity of WUAs, improve access of women to land and build on existing credit experience to improve household food security. As part of its objectives for this second phase, the project seeks to:</p> <ul style="list-style-type: none"> - resolve technical issues relating to irrigated agriculture and crop production; - address financial aspects of smallholder operations (rural savings and credit groups); - re-emphasize the importance of empowering smallholders through group activities; - reinforce beneficiary participation and promotion of grass-roots organizations, particularly those that promote the interests of women; - continue improvement of the most solicited rural infrastructure; and - ensure an institutional framework conducive to post-project sustainability. <p>http://www.ifad.org/operations/projects/regions/PA/des/GH.htm#1124</p>
<p>National Community Water and Sanitation Programme (NCWSP)</p>	<p>Designed in 1993 to increase water supply coverage in rural areas by 83 % (at first) by the year 2008 (later: by 85 % by the year 2009 and by 100 percent by the year 2020). Since 1999 the programme has also taken on the responsibility for supply in small urban areas. The key elements of the NCWSP are:</p> <ul style="list-style-type: none"> - demand-driven approach (communities decide to participate and on their preferred service level based on WTP, they contribute to the capital cost with 5% cash contribution and supply the normal operations, maintenance and repair costs of their facilities); - decentralisation of planning and implementation and management of services; - Intensive community development and training programmes; - private sector participation; - public sector playing a facilitating role. <p>The NCWSP defines the role of DAs as responsible for local level planning, coordination and supervision of all water and sanitation activities. The programme started with the WB funded CWSP-1, followed by CWSP-2 and comprehensive programmes by other donors nationwide. (A comprehensive assessment has been made by Fuest 2005)</p>

The National Community Water and Sanitation Programme - International Donors' interventions since 1993 -

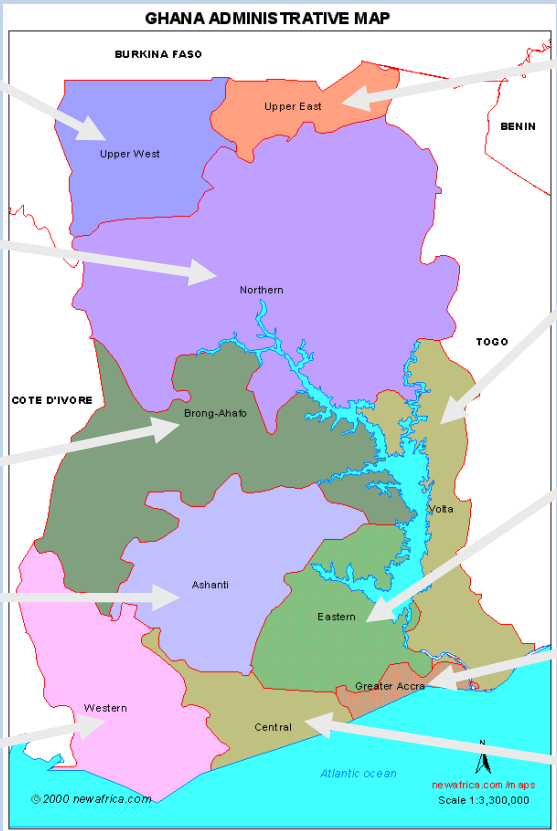
- CIDA (COWAP)
- IDA (CWSP 2)

- AfD (Phase 2)
- CIDA (GAP 1+2, NORWASP)
- EU (Rural water and sanitation project; Programming for the northern sector of Ghana)
- IDA (CWSP1)
- JICA (Phase 1)
- UNICEF (Phase 1+2)

- EU (EU-STWSP)
- IDA (CWSP1+2; IDA-STWSP)
- JICA (Phase 2)
- KfW (RWSP 2)
- UNICEF (Phase 2)

- EU (EU-STWSP)
- IDA (CWSP1+2; IDA-STWSP)
- KfW (RWSP 2+3)

- AfD (Phase 2)
- CIDA (Gap 1+2)
- EU (Programming study for small towns water supply and sanitation)
- IDA (CWSP1; IDA-STWSP)
- KfW (RWSP 2)



- CIDA (COWAB, GAP 1+2)
- IDA (CWSP 2; IDA-STWSP)
- UNICEF (Phase 2)

- DANIDA (Phase 1+2)
- KfW (EVORAP)
- UNICEF (Phase 3)

- CIDA (NORWASP)
- DANIDA (Phase 1+2; Small towns project; Sector capacity building component)
- JICA (Phase 3)
- KfW (EVORAP, RWSP 3)
- UNICEF (Phase 2)

- DANIDA (Phase 1+2; Small towns project; Sector capacity building component)
- JICA (Phase 3)

- AfD (Phase 1 a-c)
- EU (Programming study for small towns water supply and sanitation)

- Nation wide:**
- EU: Water and sanitation facilities under the management of District Assemblies and some NGOs

Veronika Fuest & Stefan A. Haffner 2004

<p>National Competitive Bidding (or Tendering) (NCB)</p>	<p>As part of the Public Procurement Bill, this is to be used in situations where domestic suppliers or contractors are likely to be interested in submitting tenders for water supply services. Practice so far: usually the lowest bid leads to a contract.</p>
<p>National Institutional Renewal Programme (NIRP)</p>	<p>The National Institutional Renewal Programme (NIRP) was begun in 1994 and comprises three main elements, viz.</p> <ul style="list-style-type: none"> - Public Sector Management Reform Programme (PSMRP) - Public Finance Management Reform Programme (PUFMARP) - Civil Service Performance Improvement Programme (CSPIP) <p>NIRP provides the overall framework for co-ordinating reforms including privatisation, civil service reform, the Medium Term Expenditure Framework (MTEF), and improvements in public sector financial management and accounting, including support to central and local government. Including: GoG divesting itself of activities better undertaken in the private sector, and of the PUFMARP.</p>
<p>Northern Region Water and Sanitation Project (NORWASP)</p>	<p>7-year project funded by CIDA since 1999. Goals are to contribute to improving family health, especially that of children, to introduce a gender mainstreaming approach to the NCWSP, which includes gathering sex-disaggregated data. Planned activities are constructing up to 700 sustainable water points and up to 14.000 household latrines in rural communities. 7 districts are encompassed: West Mamprusi, East Mamprusi, Gushegu/Karaga, Yendi, Saboba/Chereponi, Nanumba and Zabzugu/Tatale.</p>
<p>Public Finance Management Reform Programme (PUFMARP)</p>	<p>Part of the NIRP, under this umbrella GoG introduced the MTEF and is introducing a BPEMS to computerise GoG financial accounting and strengthening audit. Fiscal decentralisation Project is supporting improved financial management in local government. The CISPIP is supporting reform and capacity building within MDAs. (Timeframe: March 1997 – May 2002)</p>

Private Sector Participation (PSP)

A general policy pursued by the WB, to overcome, among others, the weak performance of public service provisions and to introduce greater efficiency. The private sector is to be involved in the service provision and management of infrastructure services. The World Bank's Country Assistance Strategy classifies "private sector involvement" in the provision, operation and management of public and social infrastructure as a key institutional reform, which, when implemented, will increase levels of Bank financing (Amenga-Etego 2003). Has been envisaged for Ghana's urban water sector since the early 1990s, and for the rural and small urban water supply since 1998. Specifically, the large urban water supply systems of Ghana are proposed to be put under management contract - The contract options under the PSP, implying various degrees of outsourcing of specific tasks up to full privatisation of public providers, are:

- Service contract: specific tasks are contracted to the private sector for a fee, while the overall utility management remains with the public sector, i.e. the WSDBs or the GWCL. Typical duration and object of contracts: 6 months - 2 years, maintenance of equipment and machinery. Potentials in the areas of consumer census, metering, extension works, regularising of billing.
- Management contract: a private firm is paid a fee to operate the water facility while the ownership remains with the community. The firm may appoint key persons to particular positions. Typically, duration is 3-5 years. As in service contracts, the manager assumes no responsibility for capital expenditure; full commercial risks are borne by the owners.
- Leasing contract: water assets are leased by the owners to a private form for O&M 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. Typical duration: 8-12 years.
- Build-Own-Operate (BOO) contract: A private firm develops, finances, and operates the water facility in perpetuity². Under the variant Build-Own-Operate-Transfer (BOOT) the facilities are transferred to the public after 20-30 years (SARPONG MANU 2001).

² Example at the micro-level: entrepreneurs who have sunk boreholes and sell water to the public.

<p>Rural Water Supply and Sanitation Initiative (RWSSI)</p>	<p>In September 2004, the African Development Bank (AfDB) includes Ghana as one of the five participants in its new Rural Water Supply and Sanitation Initiative (RWSSI). The AfDB Board of Directors approved an \$18.7 million grant aimed at increasing access to water supply and extending sanitation coverage to some of Ghana's poorest rural areas. The RWSSI hopes to improve service delivery of regional and national institutions of water to rural areas. AfDB claims that this approach, in conjunction with the participation of women farmers and community-based organizations, will help address hygiene and sanitation problems stemming from insufficient access to water.</p>
<p>Structural Adjustment Programme (SAP)</p>	<p>Specifying the conditionalities of the IMF to release loans to the government. These comprise a number of measures such as implementing the BPEMS to improve efficiency and effectiveness of public expenditure, obtaining cabinet approval to reform subvented agencies, submitting to parliament draft legislations, private sector development by outsourcing for divestiture GWCL, implementing staff rationalization programme for the GWCL, implementing a programme of increasing tariffs to achieve cost recovery, transferring all small town water systems and remaining sewerage systems to district assemblies, and preparing a national poverty-reduction programme in collaboration with donors. (http://www.imf.org/external/np/pfp/1999/ghana/index.htm#IIC)</p>
<p>Urban Environmental Sanitation Project (UESP)</p>	<p>Objectives: to improve urban living conditions in the five largest cities in Ghana in regard to sanitation, drainage, vehicular access, and solid waste management in a sustainable fashion, with special emphasis on the poor. The Second UESP is a follow-up project to the first UESP, which closed in 2003. PO is the MLGRD. Infrastructure provision and capacity building, improvements in the revenue generation of local governments and increased PSP. Components: Storm drainage, sanitation, solid waste management, community infrastructure upgrading, institutional strengthening (WORLD BANK 2004).</p>
<p>Vision 2020</p>	<p>Long term perspective study produced in 1994 following a participatory process, having the central objective of enabling Ghana to achieve middle income status by the year 2020, overall target to achieve 8% p.a. economic growth. The strategy is based on export-oriented, private-sector led development, which is reflected in the first 5-year plan covering 1997-2002.</p>

<p style="text-align: center;">Vision 2025</p>	<p>Developed by the WRC/MWH in an effort to formulate a strategy for the water sector: “The formulation of Ghana’s vision for water by 2025 was through a consultative workshop with the participation of a broad spectrum of stakeholders in the public and private sectors, women’s representatives, researchers, media personnel and the general public. The process was guided by the following themes: water for food, water for people, water for nature and integrated water resources management. Ghana’s Vision Statement: Ghana’s vision for water by 2025 is an efficient and effective management system for the sustainable development of water resources in Ghana to assure full socioeconomic benefits for present and future generations” (GoG/MWH 1999).</p>
<p style="text-align: center;">Water Sector Restructuring Project (WSRP)</p>	<p>Funded by IDA/WB, to start in 2004, designed to increase urban water availability, extend distribution networks esp. to low income consumers, and to assist the sector in establishing a sustainable financial basis. Includes support to the introduction of PSP into management and operation of the systems under either a lease or a management contract. Upgrading of water production and/or distribution in 19 major towns and cities, including all regional capitals and 13 other towns. GoG has established a Project Management Unit within the MWH which is responsible for the project preparation.</p>

2.4. Bye-laws

Terms and Abbreviations	Missions and responsibilities
Bye-laws of DAs	A DA “may make bye-laws for the purpose of any function conferred upon it by or under this Act or any other enactment” (GoG 1993: 37). Specifying as penalties fines etc. Every bye-law to be submitted to the Minister for approval or rejection.
Bye-laws of WSDB or WATSANs	<p>These organisations are advised to set up bye-laws or constitutions to regulate their cooperation. They shall be responsible for the management of the operation and maintenance of all water system in the service area of the communities within the jurisdiction of the DA’s. This mandate shall include the following specific aspects:</p> <ul style="list-style-type: none"> • The preparation of plans for the establishment, rehabilitation and expansion and replacement of existing as well as new water systems in any community specified in the schedule to these bye-laws. • The determination of appropriate financial contributions by members of the community towards the capital cost of developing the community water supply; • Proposing an appropriate tariff to cover the cost of operation and maintaining the community water system, including capital depreciation, such tariff to be approved by the DA. • Recruiting and supervision qualified persons within the community to work as operators and managers of the community water system; • Contracting an outside agency where appropriate to carry out operations and maintenance or maintenance alone. • Recommending necessary byelaws (to be enacted by the DA) that would regulate water use, enforce tariff and other financial obligations and promote appropriate sanitation practices within the community; • Undertake public education and community training to promote tariff obligations and sound sanitation and hygienic behaviour within the community; • Set procedures and charges for services connection, disconnection, penalties for default and damages to the water subject to the approval of the DA. <p>(MWH & CWSA 2003: 27f.)</p>
Contracts	DAs or communities are entitled to make their own contracts with private firms. To be specified: (MWH & CWSA 2000)

2.5. Project law

Terms and Abbreviations	Missions and responsibilities
<p align="center">Budgeting and Public Expenditure Management System (BPEMS)</p>	<p>Public Finance Management Reform Programme (PUFMARP) is divided into a number of components: Budgeting & Public Expenditure Management System (BPEMS). This was aimed at reforming the budgeting (preparation and implementation), accounting and financial reporting subsystem and to provide a computerised platform to run the entire financial management system. The other components were Procurement, Cash Management, Fiscal Decentralisation, Revenue Management, Auditing, Aid & Debt Management. Each of these subsystems were designed to interface into the core BPEMS.</p> <p>Pursuant to establishing the BPEMS of PUFMARP, the following sub projects were implemented: -</p> <p>Financial Information Centre</p> <p>This was the construction of a modern computerised financial management centre where all national financial data will converge and emanate. This would accommodate the central systems for processing of national financial data, as well as provide training facilities for the relevant personnel.</p> <p>MDA Sites Preparation</p> <p>This project was to establish the national infrastructure requirement of the financial management system through the refurbishment of MDA sites and the installation of relevant computer equipment and Local Area Network in the appropriate regional and district offices.</p>
<p align="center">Contract procedures</p>	<p>CWSA encourages DAs or communities to make their own contracts with private firms. The CWSA is mandated to concentrate only on a facilitating role concerning PSP. Small contracts will be subject to NCB method using national bidding documents. The Programme Implementation Manual describes the details of procurement methods together with other details on disbursement methods, design standard and criteria, project components and activities, standard bidding documents, etc. The technical assistance for technical support and consultancy services to carry out hydro-geological, rural piped schemes and research studies will be procured through short-listing of qualified consultancy firms with selection procedure based on technical quality with price consideration. The audit service is recruited through a shortlist of independent audit firms (AFD 2003:28-29). - Consult the Contract of Service Manual of the CWSA.</p>

Disbursement procedures	<p>Are not unitary. Most donor funding is channelled through the district administration. The disbursement arrangements accepted by donors determine that the executing agency, CWSA, will be responsible for the proper management of the programme funds including approval of payments and preparation of disbursement applications during programme implementation. Disbursements can be made by the special account method or by the direct payment method. Some of the funds are channelled through the CWSA, which has a Special Account denominated in foreign currency in the Bank of Ghana. Disbursements of funds are made on revolving method basis. Funds in the account are replenished upon justification of utilisation of the previous transfers. Disbursements from the Special Account are made to the DAs or to suppliers of goods and services, implementing major contracts. CIDA is funding a contract with a consultancy firm to supervise the disbursements and reporting (“Management of Designated Project Funds by CWSA”) (CIDA & CWSA 2003). – Some international donors do not insist on the conditional beneficiary contributions before releasing their funds. Some of the NGOs offer their service deliveries for free.</p>
Social Investment Fund (SIF)	<p>The SIF is part of the Ghana Poverty Reduction Strategy. Concerning the cost of the project, SIF pays 75 per cent, the district assembly pays 15 per cent while the community contributes ten per cent in the form of labour and provision of raw materials.</p>
Strategic Investment Programme (SIP)	<p>In 1998, a Strategic Investment Programme (SIP) was prepared as an update to the 1993 NCWSP, the targets being adapted in the process. An update of the 1998 SIP was carried out by CWSA and was expected to be completed in October 2003, taking into account the MDGs (ADF 2003:7-8).</p>
International Competitive Bidding (ICB)	<p>Where foreign firms are to be invited for contracts. This applies to the introduction of PSP in urban water supply systems, the planned privatisation of the GWCL and the WSRP.</p>
Principle of beneficiary capital contribution	<p>See NCWSP and DA. Introduced by the WB as part of a broader pattern of policies directed to achieve cost recovery by means of “user fees”. Since many communities have turned out to be incapable of raising the 5 %-10% of capital cost contribution, the CWSA has devised a new draft policy in order to reduce the community contribution to 2,5 %.</p>

<p>Project Manuals and Guidelines of the NCWSP</p>	<p>Approved policy documents and technical guidelines are expected to guide the successful implementation of CWSP-2: Project Operational Manual, Programme Implementation Manual , Administrative Manual, Contract of Service Manual, Accounting Manual, Audit Manual, Procurement Manual, Corporate Plan, Strategic Investment Programme, Annual Performance Contract with the State Enterprises Commission, National policy and strategy, Specifications for construction of boreholes and hand-dug wells, policy guidelines and standards for small towns, designs for household and institutional latrines, and Terms of Reference for Small Towns consultants, Operations and Maintenance Strategy for small towns water supply.</p>
<p>World Bank safeguard policy on involuntary settlement</p>	<p>Requirements that, where involuntary settlements, acquisition of land or restrictions to natural resources may occur as a result of a WB project, involuntary resettlement should be avoided or minimised, resettled persons should be informed about their options and rights, should share in the project benefits and participate in planning and implementing resettlement programmes, displaced persons should be assisted to to improve their livelihoods etc. (GIOVANNETTI 2004) – relevance to Weija lake encroachments.</p>

2.6. Local law or self-regulation

	<p>Missions and responsibilities</p>
<p>Uncoded “traditional” laws affecting water allocation and use</p>	<p>Resource allocation is ruled by norms enacted by so-called earth priests (“tindanaas”) or local chiefs, however, due to local power struggles the outcomes vary to a great extent. Institutional pluralism is to be highlighted by our research at the local level. For first findings see Bacho (2001) ... to be specified in the course of ongoing research.</p>
<p>Informal rules governing national actors</p>	<p>... to be specified in the course of ongoing research. There is a gap between public institutional mandates, policies and the practice or implementation of the various actors in the water sector.</p>

3. Actors

Actors comprise individuals, corporate bodies, organisations and strategic groups. In Ghana these can be heuristically distinguished by their principal levels of institutional operation:

1. National corporate bodies,
2. District level or regional organisations and
3. Local authorities and organizations.

Moreover, the activities in the water sector depend heavily on

1. Donor organisations which include bi-lateral, multilateral and non-governmental organisations
2. Private companies and
3. Research and scientific institutes.

Actors act on all levels and they interact, of course. National agencies may have regional and/or district offices. The political parties, too, are active at all levels.

Multilateral development agencies (World Bank Group, EU) and bilateral foreign state development agencies from Canada (CIDA), Denmark (Danida), France (Afd), Germany (GTZ/KFW) are involved in the sector. Donor agencies are very influential at the policy level and are exerting controlling power. They may give advice concerning the drafting of laws and policy papers, recruit and engage international and local technical assistance, define the guidelines for project implementation and the indicators, ensure that ToR are prepared for assignments, be responsible for monitoring services, employ auditors etc.. - National and international NGOs (like Water Aid, World Vision International, etc.) as well as private enterprises have also been contributing to the extension of water services and sanitation systems and have been involved in the construction of small dam reservoirs for the rural population.

3.1. National agencies, organisations and bodies corporate

Terms and Abbreviations	Missions and responsibilities
<p>Coalition of NGOs in Water and Sanitation (CONIWAS)</p>	<p>Founded in 2003 as an outcome of the Mole Conference Series, which was initiated in the year 1989. Objectives: presenting one voice of NGOs in the water and sanitation sub-sector in Ghana, improving coordination and networking among NGOs and community based organisations (CBOs) engaged in the sub-sector. Being a link between its members and the government departments involved in the provision of water and sanitation services. Working in partnership to influence policies, remove barriers, and promote access to potable water, safe sanitation and improved hygiene for the poor and vulnerable. The Coalition is not financially viable and is donor-dependent (DANIDA, World Vision, WaterAid and others). Mobilising the required finances to facilitate the sustenance of the organisation was an issue of concern(SARPOMAA FISCIAN 2003).- A head office was officially established in Accra inMa y 2005.</p>
<p>Community Water and Sanitation Agency (CWSA)</p>	<p>Autonomous body under the MWH, successor to the former Community Water and Sanitation Division (CWSD) under the former GWSC. GoG had established the CWSD within GWSC in 1994 to segregating the responsibilities for urban water and sewerage from rural water supply and sanitation, CWSA is responsible for the overall management, planning, budgeting, resource mobilisation and coordination of rural water and sanitation projects. “Facilitator” of the NCWSP. Being the focal point of rural water supply, CWSA collaborates with several donor organisations, including Danida, World Bank, CIDA, GTZ/KfW, EU and AFD.</p> <p>– Represented in the WRC for organisations producing potable water.</p>
<p>Department of Town and Country Planning</p>	<p>Established in 1945, responsible for designing plans and controlling settlements, based on mapping information by the Survey Department.</p>

<p>Environmental Protection Agency (EPA)</p>	<p>Regulating and enforcing functions according to an Act of Parliament 1997. Hosted by the MES. Providing guidelines for developments that affect the environment and setting standards for emissions and discharges into the environment. Principles: partnership with stakeholders from all branches of society, pollution prevention control, ecosystem management based on a sound understanding of the characteristics and dynamics of the ecological systems, environmental justice, i.e. all members of the community have the right to a clean and healthy environment, environmental education, compliance and enforcement of environmental laws and regulations, science and data, strengthening EPA management by quality leadership. In charge of Environmental Impact Assessments (EIA) which are perceived to be instruments to contribute to the protection and conservation of natural and water resources. Reviewing EIA reports, attempting to ensure implementation of environmental and social management plans, designed to mitigate the impact of development activities on the environment. – Represented in the WRC.</p>
<p>Fisheries Commission</p>	<p>Established 1993 (Act 457) for the regulation and management of the utilisation of the fisheries resources of Ghana and the coordination of the policies in relation to them. – Not represented in the WRC.</p>
<p>Forestry Commission (FC)</p>	<p>The Forestry Commission of Ghana is responsible for the regulation of utilization of forest and wildlife resources, the conservation and management of those resources and the coordination of policies related to them. The Commission embodies the various public bodies and agencies that were individually implementing the functions of protection, management, the regulation of forest and wildlife resources. These agencies currently form the divisions of the Commission: Forest Services Division, Wildlife Division, Timber Industry Development Division, Wood Industries Training Centre, Resource Management Support Centre. - Overall objectives: Management of Reforestation and Harvesting, Involvement of communities in the management of the forest, protecting water bodies, delivering integrated forest and wildlife management and utilisation services that are commercially minded and customer focused.– Represented in the WRC. http://www.fcghana.com (February 2004).</p>

<p>Ghana Irrigation Development Authority (GIDA, in short: IDA)</p>	<p>Successor to the Land Planning Unit (1960), the Irrigation, Reclamation and Drainage Division (1964) and the Irrigation Department (1974), all of them being within MoFA. Mission: "... to formulate and execute plans to promote the development, on a sustainable basis, the water resources of the country for farmers, agricultural related Industries and institutions in the areas of irrigation, livestock development and pond fish culture within an environmentally conducive atmosphere". Provide efficient technical services in Irrigation and support infrastructure for water and soil conservation measures. Assist farmers in technology transfer for irrigated agriculture. Provide consultancy services in irrigation, aquaculture, stock water and soil conservation. Support for maintenance and operation of irrigation systems including tubewell, drip, sprinkler and simple infrastructure aimed at conserving water and soil moisture. To strengthen the process of gathering data and monitoring information in the organisation so as to provide reliable and adequate information for decision making. Identify and prepare feasibility study reports on new irrigation schemes to meet Government targets set. – Funding for operational and development activities from external funding, GoG (recurrent expenditure) and farmer participation by means of labour and levy for O&M. (IDA 2002; IDA & MOFA 2003)</p>
<p>Ghana Standard Board (GSB)</p>	<p>Is the national body established under the National Redemption Council Decree (NRCD) 173 responsible for setting national drinking water standards. GSB, among others, is to assist government departments, local authorities and other public bodies in the preparation of any specifications required by them and to cooperate with representatives of any industry, or with any government department, local authority or other public bodies or persons with a view to securing the adoption of standards with the setting up of PURC. The drinking water standards set by GSB are to be enforced by the Commission.</p> <p>Always in conflict with the Food and Dugs Bard, which is specialised. No clear demarcation. It has sent people to court, has a law and enforcement power backing his activities, and has closed businesses before. Problem with GSB is that it is more interested in its commercialisation functions while paying less attention to water quality issues. Its guidelines should be adapted to the new requirements.</p>

<p>Ghana Water Company Limited (GWCL)</p>	<p>GWCL was created in 1999, taking over the tasks of the former public GWSC which had proven to be resistant to reform/restructuring efforts since the 1980s in terms of operational and financial viability (WATER SECTOR RESTRUTURING SECRETARIAT 2002). In charge of urban water supply for towns with populations above 20.000. GWCL has handed over most of the supply systems (about 208) of the former GWSC to the CWSA/the DAs under the NCWSP. In 2004, about 70 Urban Water Supply Systems were estimated to be still under GWCL management. Mandated to produce potable water at various headworks/treatment plants (3 labs in Accra, two in the Northern Region, the transmission of water to tanks and reservoirs and the distribution of water to customers through pipelines. Renowned for its poor performance, UAFW has been at about 50 % for years. - Conditionality of the WB/IMF to privatise GWCL has been a matter of controversial public debate. – Represented in the WRC.</p>
<p>Government of Ghana (GoG)</p>	<p>Is often referred to as the Ghanaian bureaucracy, which is made up of line Ministries in Accra and their deconcentrated offices in 10 regions and 138 (formerly 110) districts.</p>
<p>House of Chiefs</p>	<p>National organisation is the National House of Chiefs (no such institution exists for Queen mothers) - represented in the WRC. Regional House of Chiefs has representatives on the RCC.</p>
<p>Lands Commission</p>	<p>Established in 1994 by virtue of the Lands Commission Act, principal land management organisation of GoG. Mandated to manage public lands on behalf of the GoG, to advise the GoG and local authorities on policy matters, and to ensure that the development of individual parcels of land is consistent with area development plans, to advise on and assist in the execution of a comprehensive programme of land title registration. Decentralised organisation with Regional Land Commission in each of the 10 regions (GIOVANNETTI 2004). - Not represented in the WRC.</p>
<p>Minerals Commission</p>	<p>Established in 1993 (Act 450) is charged with the power to grant mining rights, which may include mining in water bodies and/or abstraction, diversion or damming of water. It is administratively placed under the Ministry of Lands Forestry and Mines – Represented in the WRC.</p>
<p>Ministries, Departments and Agencies (MDA)</p>	<p>Corporate bodies belonging to the GoG. Each Ministry has a planning department, but the extent of in-house capacity for critical review of policies and expenditure programmes is variable.</p>

<p>Ministry of Environment and Science (MES)</p>	<p>Has ministerial responsibility for the integration environment and science and technology policies for the country's sectoral, structural and socio-economic planning. Both subjects cut across all sectors of the economy just as the need for water. MES supervises a number of agencies including the EPA which a regulatory, education and enforcement agency and WRI which focuses on research and information management.</p>
<p>Ministry of Finance and Economic Planning (MFEP)</p>	<p>Public financial management includes the activities that relate financial resources available to the government to the allocation of funds, accounting and reporting, cash flow management, asset management, debt management, internal controls, procurement and financial statements. - Restructuring these range of activities is an integral part of the GPRS. - In charge of paying public service employees. In the 1990s from 20 % to over 50% of GoG expenditure was represented by external support, in 2001 45 % of the budget was provided by donors (Foster & Zormelo 2001: 31). - Disbursement of funding contributions to development projects and programmes has been reduced. The WRC is negotiating to establish a Water Resources Management Fund (WRMF) into which all the permit fees and raw water charges and any other charges "will be lodged for the sustainable management and development of water resources in the country." (GoG/MWH 2002).</p>
<p>Ministry of Food and Agriculture (MOFA)</p>	<p>The sector Ministry charged with promoting sustainable agriculture and thriving agribusiness through research and technology development, effective extension and other support services to farmers, fishermen, processors, and traders for improved human livelihood.</p> <p>MOFA is pursuing the following objectives: Ensure food security: facilitate the production of agricultural raw materials for industry; facilitate the production of agricultural commodities for export, facilitate effective and efficient input supply and distribute systems, effective and efficient output processing and marketing system, formulate and co-ordinate the implementation of policies and programmes for the food and agricultural sector. – Hosting the Land and Water Management Unit (DANIDA assisted) and GIDA. (http://www.mofa.gov.gh/)</p>

<p>Ministry of Health</p>	<p>Is responsible for providing integrated health services for the country. It continues to pay particular attention to the development of basic health services. It also contributes to improve and expand health facilities that are lacking, especially in the rural areas. The ministry has maintained a special relationship with the World Health Organisation (WHO), the United Nations Children’s Fund (UNICEF), the United States Agency for International Development (USAID and technical assistance sources. Under the main programmes of this ministry, the Environmental Health and Communicable Diseases relate more to water. The Environmental Health Services consist of the sanitary control of the physical environment for the protection and improvement of health. Services include sanitary inspection and sanitation services. The sanitary engineering services were to ensure that adequate consideration is given to public health requirements of all engineering projects including water supplies, sewerage disposal, housing, town planning, irrigation, drainage etc.</p>
<p>Ministry of Lands, Forestry and Mines</p>	<p>In general, aims at, “the conservation and sustainable development of the forestry and wildlife resources for the maintenance of environmental quality and perpetual flow of optimum benefits to all segments of society”. A revised Forest and Wildlife Policy has replaced that of 1948. Its new policy objective is “to promote the management and enhancement of the country’s permanent estate of forest and wildlife resources for the preservation of vital soil and water resources, conservation of biological diversity and the environment“.</p> <p>The mining sector’s authority related to water through the Minerals and Mining Law (PNDCL 153, 1986). Sector 21 of this law stated that, “No person shall obtain, direct, impound or convey water from any river, stream or water course for mining or other industrial purposes without licence granted by the Secretary.” This law has been repealed with the passage of WRC Act 522 of 1996.</p>
<p>Ministry of Local Government and Rural Development (MLGRD)</p>	<p>Established 1993 by PNDCL 327, MLGRD functions as a local government secretariat under the Office of the President. Involved in the president's appointment of the 30 % of the DA members and the DCEs, and in monitoring and evaluating the DAs. It issues guidelines to the DAs and must approve of all the DAs' bye-laws before they can become operative. It has the power to dissolve the DAs and replace them with interim management committees (Ayee 1997a). - Responsible for administering the programme of decentralised government, for developing policies and legislation with respect to the operations of the DAs. Also responsible for policy formulation and planning for the sanitation sub-sector.</p>

<p>Ministry of Energy</p>	<p>Has overall responsibility for the development and use of Ghana's energy sources including fuel, wood fuel and hydropower which are related to the water system. The ministry supervises the Volta River Authority which is engaged in hydropower generations.</p>
<p>Ministry of Works and Housing (MWH)</p>	<p>The MWH with the assistance of donors organised the Kokrobite Workshop in 1991 where comprehensive reforms in the provision and sustainability of rural water supply and sanitation were decided on.</p> <p>According to its more recent mandate its main functions are: "the formulation and co-ordination of policies and programmes for the systematic development of the country's infrastructural requirements in respect of Works, Housing, Water Supply and Sanitation and Hydrology." ... "The objective of Government in housing and potable water provision is to create a conducive investment environment to allow both the Ghanaian and foreign entrepreneur to deliver goods and services on sustainable and affordable basis" (GoG/MWH 2000). Assumed to provide and improve the legislative framework for the smooth delivery of activities within the sector, responsible for the formulation of policies, strategies, co-ordination, budgeting, monitorin and evaluation to ensure efficient performance of the water sub-sector. – Hosting the CWSA, WRC and GWCL.</p>
<p>National Association of Local Authorities Ghana (NALAG)</p>	<p>Voluntary association, all district assemblies are members</p>
<p>National Campaign Against Privatization of Water (NCAP)</p>	<p>Coalition of civil society groups, i.e. TUC, ISODEC, Third World Network Africa</p>
<p>National Democratic Congress (NDC), New Patriotic Party (NPP), People's National Convention (PNC), etc.</p>	<p>Parliament is composed of elected representatives of political parties. The leading members of political parties and their presidential candidates for 2004 and previous elections promised and sometimes provided infrastructure projects, including water supply, to their constituencies in the context of their election campaigns.</p>

<p>National Development Planning Commission (NDPC)</p>	<p>Established 1994 (Act 479) by the Constitution (Office of the President) to prepare long-term and medium-term plans on behalf of the GoG. NDPC is the coordinating body (Act 480) of all development planning agencies (DAs, RCCs, Sector agencies and ministries). The Central Economic Planning Authority was responsible for the preparation of the GPRS. It is supported by a technical secretariat but has no Minister as such. NDPC is assisted by multi disciplinary Cross-Sectoral Planning Group (CSPG). Membership of CSPG is drawn from MDAs, NGOs, academic and research institutions, the private business community, distinguished personalities from wide ranging backgrounds and disciplines as well as representatives from the regions and districts.</p>
<p>Public Utilities Regulatory Commission (PURC)</p>	<p>Independent body established under the PURC Act 1997 to regulate and oversee the provision of utility - electricity and water - services in the country. PURC is also mandated to ensure the development and delivery of the highest quality of utility services to consumers . It wants to compel the utility companies to deliver reliable and quality service to consumers, while ensuring the financial sustainability of the utility companies through economic and efficient full cost reflective tariffs. The PURC does not regulate the prices charged by the water tanker traders. The Chairman is appointed by the President in consultation with the Council of State for a 5-year-terms, renewable. Supported by a Secretariat. - Support by the WB,USAID, DFID etc. – Not represented in the WRC.</p>
<p>Trade Union Congress (TUC)</p>	<p>Labour Union supporting interests of workers. Rallying against the PSP policy in the urban water supply sector. GWCL would have to retrench thousands of its employees if privatised. Note that TUC was a member of the advisory committee that proposed the various options under the PSP programme.</p>
<p>Volta River Authority (VRA)</p>	<p>Developing the hydroelectric potentials of the Volta River and the construction and maintenance of the nation-wide grid transmission system. The Akosombo Generating Station started producing power in 1965, the Kpong Generating Station in 1982. Power is sold to several bulk customers. The major sale used to go to VALCO, the second major customer is the Electricity Company of Ghana which is in charge of the distribution of the bulk of local electricity consumed in Ghana. Other local customers include a number of smaller industrial and mining consumers. Furthermore, power is exported to Togo, Benin and border towns of Burkina Faso and interchanged with Ivory Coast. – Represented in the WRC.</p>

<p style="text-align: center;">Water Resources Commission (WRC)</p>	<p>Established in 1998 through an Act of Parliament (Act 522/1996) with the mandate to regulate and manage Ghana's water resources and to coordinate government's policies in relation to them, as well as attain some measure of environmental protection and conservation (MWH 1999). WRC should also facilitate and oversee that Ghana adopts an integrated, cross-sectoral, river basin anchored approach to water resources management. Areas of operation can broadly be categorised as (i) carrying out regulatory functions and (ii) facilitating capacity building and awareness raising initiatives at decentralised IWRM levels. Conducting decentralised IWRM pilot activities initiated in two river basins. Entitled to generating revenue from fees and raw water charges from water users in the country. Representing Ghana's interests in transboundary waters activities, cooperating with DGIRH of Burkina Faso, IUCN, Greencross International and others. - 14 members with representatives of data management institutions, major water users, regulatory institutions as well as women, Chiefs and NGOs. Supported by a Secretariat. - Hosted by the MWH. - Activities supported by DANIDA and technically by GLOWA Volta Project..</p>
<p style="text-align: center;">Water Sector Restructuring Secretariat (WSRS)</p>	<p>In 1997 a special Water Sector Restructuring Secretariat was created to guide the PSP process, supported by WB and DFID. Public awareness campaigns to inform the public about the benefits of the PSP. – At first the office was located on the WRC's premises but moved to a neighbouring house in 2004.</p>

3.2. District level or regional authorities and organisations

Terms and Abbreviations	Missions and responsibilities
<p>Association of Water and Sanitation Development Boards (AWSDB)</p>	<p>The AWSDB is the only umbrella organization of its kind in Ghana covering the three northern Regions. It was founded in Navrongo in 1995, initiated and promoted by CIDA. The member WSDBs are all from small towns where CIDA rehabilitated or is rehabilitating broken down water supply systems. Initially, the association represented 14 small town WSDBs but over the years the number of members has increased to 36, of which 15 are based in the Northern Region, 9 in the Upper West Region and 12 in the Upper East Region.</p> <p>There is some interest in the southern parts of Ghana to found a similar association. The AWSDB supports it by providing information and guidance. Partners of cooperation: the CWSA, the District Assemblies of the three Northern Regions, the Northern Regional Guinea Worm Eradication Programme, the Community Partnership for Health & Development and the Savannah Resource Management Project. Activities have included:</p> <ul style="list-style-type: none"> • Guiding communities to make informed decisions regarding their water & sanitation needs in line with the national community water & sanitation strategy • Facilitating the formation of WATSANs, WSDBs, dam management committees, etc. • Development of training materials for the training of WATSANs • Training of WATSANs on financial management and bookkeeping, operation and maintenance of hand pumps, health & hygiene education and community development activities and WSDBs on the use of participatory methodologies, community entry and mobilization, group formation and group dynamics, water shed management, pump operation, maintenance and repair, dam site selection, design and construction • Training of communities on watershed management to protect and conserve the integrity of water bodies and on operations and maintenance of hand-dug wells • Conducting technical assessment of the status of existing water & sanitation facilities • Rehabilitation and construction of hand-dug wells • Designing, coordinating and facilitating socio-cultural surveys or researches • Development of water & sanitation status monitoring indicators • Development of business plans and fund mobilization and investments

District Assemblies (DAs)	The highest political authority in the 138 districts (was originally 110. 28 new districts were recently created). Body forming the local government, basic unit of government as well as statutory, deliberative and legislative body for the development of broad policy objectives and critical assessment of developing progress (Act 462). A mix of 70% elected and 30% appointed (DCE, members of Parliament whose constituencies fall within the DA's area of authority and others) members. Preparation, formulation and implementation of annual development plans, budgets and strategies for the mobilisation of resources necessary for the overall development of the district, including provision of basic infrastructure. The LI setting up each DA provide a very specific list of up to 86 specific duties. - DA has to pay 5% of capital cost contribution for community water and sanitation sub-projects, to select beneficiary communities and to contract the private sector to provide the goods and services for the implementation of water programmes. – The targets of the GPRS comprise rationalising and defining the roles of regional and district departments, conducting courses on open and participatory governance for Regions and Districts, revision of the Local Government Service Bill, reviewing the legislation related to decentralisation, comprehensive training for Region and District departments, courses on composite budgeting for DAs, introduction of a “hard living allowance”, preparing district poverty profiles, initiating a process to get all Assembly members elected, Initiating a process of changing the Constitution to get DCEs elected, achieving capacity of DAs to formulate basic development plans, programmes and projects, introducing composite budget in pilot districts, establishing a mechanism for working partnerships with NGOs and private business sector, establishing community participation, including annual participatory poverty analysis at Unit level (GoG 2003: 134-40).
District Assembly Works Department	Realisation depends on the passage of the Local Government Services Act.
District Coordinating Director (DCD)	Acts as a secretary to the DA
District Chief Executive (DCE)	A Presidential appointee of the DA chairs the most powerful DA committee, i.e. the Executive Committee. Can only be appointed by the president with the prior approval of two thirds of the DA. Can be removed by two thirds of the DA passing a vote of no confidence. In theory, this is to ensure that the DCE is accountable to the DA.
District Water and Sanitation Teams (DWSTs)	The DAs are encouraged to form a 3-member team, as part of their administrative structure.

Executive Committee (EC)	Exercising the executive and co-ordinating functions of the DA. In between sessions of a DA, the EC carries out its functions – or: In the performance of its function the District Assembly works through the Executive Committee. Each EC is supposed to have the following sub-committees: development planning sub-committee, social services sub-committee, works sub-committee, justice and security sub-committee, finance and administration sub-committee, and others as the DA may determine.
Metropolitan, Municipal and District Assemblies (MMDA)	Depending on the population, DAs can also be Municipal Assemblies (towns assemblies with pop. over 95.000) or Metropolitan Assemblies (pop. of over 250.000). Sub-bodies are the Urban/Town/Zonal/Area Councils and the Unit Committees. The Executive Committee is presided over by the District Chief Executive and consists of not more than one-third of the total members of the Assembly excluding the Presiding member.
Regional Co-ordinating Councils (RCC)	Each of the ten regions has a RCC, which is supposed to monitor, co-ordinate and evaluate the performance of the DAs, monitor all monies allocated to the DAs by any agency of the central government. Its members are not elected: a regional minister and his deputies, the presiding member of each DA and DCE of each district in the region (all appointed), two chiefs from the House of Chiefs (elected), and regional heads of the decentralised ministries in the region as members without voting rights. RCCs “seem to direct and control activities of the DAs in practice to ensure that they operate within legislated limits” (AYEE 1997:89) Sometimes the power to reject or approve the DAs’ by-laws is delegated to the RCCs by the MLGRD. Unlike the DAs, the RCCs do not command a local resource base in the form of locally generated revenues and has few service delivery functions.
Regional Directors of the CWSA	Heading the RWSTs?
Regional Water and Sanitation Teams (RWSTs)	Of the CWSA. Manage all investments by coordinating and integrating all the annual work-plans and budget of all participating districts. Fully represented in all the regions.

3.3. Local actors, organizations and authorities

Terms and Abbreviations	Missions and responsibilities
Agricultural extension agents	To be specified
Chiefs	Although chiefs have no formal political authority, they have power to influence or even determine the decisions regarding the management of natural resources at the local level. Family and land disputes as well as development issues can also be dealt with by the village chief and elders.
Church leaders	(Hypothetically) - Some churches have formed NGOs like ADRA which assist communities in the provision of water. It is not specific to the leaders alone. To be specified
Communities	Participate in government by voting in the general election every 4 years and participate in the DAs by electing assembly members and Unit Committees. They voice their development needs to the DA through the Assembly Members, and contribute finances, labour and other resources to dev. projects.
Community hygiene educators	Are trained to conduct the promotion of latrines.
Councils (Urban/Zonal/Area/Town)	<p>Consultative bodies below the district level, like the UCs, with no budgets of their own. They were meant to contribute to the articulation of citizens' interests, to mobilise development on their behalf and to carry out functions as delegated. Urban Councils (34) are for settlements with pop. above 15.000, and town councils (250) are for settlements with pop. between 5.000 and 15.000. The Area Councils (828) for pop. Of up to 5.000, the Zonal Councils (108) for settlements with pop. of about 3.000.</p> <p>Membership: representatives of the relevant DAs, UCs, and government appointees, selected by the DCE on behalf of the President, after consultation with the PM, traditional authorities, and organised productive economic groupings. "The councils are supposed to be the rallying points of local enthusiasm in support of the development objectives of the DAs" (AYEE 1997:90).</p>

District Water and Sanitation Teams (DWSTs)	In charge of water and sanitation issues at the district level. The WATSANs are to be formed, trained and supervised by the DWSBs, which themselves are trained and promoted by the CWSA's Regional offices (MoWH 1999; 2002).
Environmental Health Assistants	Are trained by ... to conduct the promotion of latrines and to ...
Latrine artisans	They are key actors in meeting targets for latrine construction. As private sector artisans they are meant to market the latrines in their area council, assist community members to complete latrine application forms and construct the latrines. Latrine artisans are trained by CWSA funded POs, they require a background in masonry or carpentry.
Social sub-groups	Women, men, poor, "non-poor", settlers and indigenous people are affected differentially by policies and project activities in the water sector. This can be due to local power constellations determining differential access to and use of water resources, and to the traditional division of labour.
Spiritual / traditional authorities	Access to water resources is associated with access to land, which is regulated by so-called earth priests ("tindanaas") in the north and holders of Stool rights in the south.
Sub-committees of the EC	This includes the Social Services Sub-Committee, Works Sub-Committee, Finance Administration and Development Planning Sub-Committee and others.
Unit Committees (UC)	The lowest level of government, 16.000 elected bodies serving a population of 500-1.000 in the rural areas (According to Bacho 2001:3 of the over 47.800 settlements more than 40.000 have populations fewer than 500 persons.) and a population of up to 1.500 for the urban areas. Consisting of no more than 15 persons, of which 5 persons are government appointees selected by the DCE on behalf of the President. Supposed to perform specific roles, i.e. education, organisation of communal labour, revenue-raising, and registration of births and deaths. Proposals from UCs contribute to the DA development plans. – The first UC elections took place in 1998.
Water and Sanitation Committees (WATSANs)	gender-balanced, elected committees to manage point water sources and oversee household latrine maintenance and hygiene promotion. Conditionality of funding under the NCWSP. WATSANs are formed and trained – e.g. by WaterAid partners - to operate and maintain the infrastructure and to create the necessary revenue to cater for repairs and the procurement of spare parts.

Water and Sanitation Development Boards (WSDBs)	Gender balanced elected committees for rural/small urban piped schemes. Conditionality of funding under the NCWSP. Like the WATSANs, they are mandated to represent the communities' aspirations and interest during sub-projects' planning and implementation and to manage the facilities after hand-over. - Their legal status vis-à-vis the companies they contract is an open issue.
Water Users Associations (WUAs)	Formed at the request of the GIDA, supported by the WB, IFAD and other donors. Conditionality for receiving funding support for irrigation infrastructure. Responsible for the operation and maintenance of the dams, allocation of land to WUA members, collection of water fees and providing agricultural services on the sites.

3.4. Donor organisations and international actors

Terms and Abbreviations	Missions and responsibilities
Adventist Relief Agency (ADRA)	An NGO of the Seventh Day Adventist Church which is active in the water supply sub-sector especially in the north regions of the country.
African Development Bank (ADB)	Implementing the NCWSP in the Ashanti Region
African Development Fund (ADF)	Implementing the NCWSP in the Northern Region
Agence Francaise de Développement	Implementing the NCWSP in the Western Region

<p>Canadian International Development Agency (CIDA)</p>	<p>For 3 decades a key donor of water and sanitation projects in Northern Ghana. Still one of the lead donors for rural water supply and sanitation currently operating in the Northern Region. Supporting NORWASP, in charge of DISCAP. Widely viewed as a major catalyst for gender responsive planning and implementation in the NCWSP, since 1990 pursued an ambitious gender agenda encouraging active decision-making by both women and men at regional, district and community levels.</p> <p>A planned 3-year exercise to be carried out in the Northern Region aimed at providing an overview of the groundwater ‘baseline’ information and presenting relevant hydrogeological maps in a systematic manner. To be coordinated by the WRC.</p>
<p>Danish International Development Agency (DANIDA)</p>	<p>Active in the water supply and sanitation sector in Ghana since 1993. However, its support to the water resources sector in Ghana was initiated in 1997 to strengthen water resources information services (WRIS) by providing support to MSD, HSD, and WRI. Later ushered in support for WRC in form of a new component “Support to the Water Resources Commission, Phase 1”, from February 2001 to 2003 as an integral part of Danida’s Water and Sanitation Sector Programme Support (WSSPS I).</p> <p>WSSPSII started in January 2004 with the objective of contributing to a sustainable reduction of poverty through improved water supply, sanitation and hygiene behaviour as well as increased knowledge and better use of the water resources in Ghana. Building on achievements made during phase I (especially in capacity building) further moving towards district-based implementation of water supply and sanitation, integrated water resource planning and local water resource planning (DANIDA 2003a). It has four main components: District Based Water and Sanitation Component; Integrated Water Resource Management (IWRM) Component; School Hygiene Education Component; and Policy, Monitoring and Management Support Component.</p> <p>The Policy, Monitoring & Management Support Component has four areas of support:</p> <p>“Support to MWH: Under this area, the MWH will be assisted to establish and operationalise a Water Directorate which can become the focal point for coordination of the water supply sector, e.g. policy assessment, strategic planning, sector-wide monitoring and evaluation, and coordination of foreign assistance;</p> <p>Support to MLGRD, which is the principal institution dealing with environmental health and environmental sanitation. Under this support area, the MLGRD will be supported in order to establish and make operational a Sanitation and Environmental Health Unit under the Policy Directorate of the Ministry, which can facilitate policy</p>

	<p>development and coordination of environmental sanitation interventions;</p> <p>Support to CWSA: CWSA will be strengthened to a) improve the technical and strategic planning capacity of the agency (support the Department of Planning and Investment) and b) further develop its monitoring and evaluation system in order to integrate the system into the system to be established by MWH and MLGRD in collaboration with the GPRS M&E System;</p> <p>Support to NGOs and civil society organisations: This support area takes as its point of departure two developments in the arena of civil society in the water and sanitation sector. The first is the burgeoning NGO community of active organisations that promote advocacy in the sector; and the second is the emerging network of associations that represent a wide range of community-based water and sanitation boards” (DANIDA 2003b).</p> <p>- Operating in Eastern Region, Greater Accra Region, Volta Region, and Central Region under the District Based Water and Sanitation Component. One of the lead donors in the sector, support to WRC, CWSA, and WRIS institutions.</p> <p>- KFW and DANIDA have provided seed funds/spare parts as part of a partial commercialisation of the activity to the private sector.</p>
<p>European Union (EU)</p>	<p>Involved in CWSP-2. Implementing the NCWSP in the Northern Region, Ashanti Region, Brong-Ahafo Region, Western Region</p>
<p>Gesellschaft für Technische Zusammenarbeit (GTZ)</p>	<p>Since 1996 technical support to EVORAP. Assisting the CWSA to rehabilitate and construct water supply systems in selected small towns (33) in the Eastern and Volta Regions, co-funding by the KFW. 33 contracts between projects and communities had been accomplished in 2003. GTZ provides management assistance to the communities and KFW invests in the construction of water infrastructures in the project area. – EVORAP does not support sanitation activities.</p>

<p style="text-align: center;">Integrated Social Development Centre (ISODEC)</p>	<p>One of Ghana’s leading NGOs (founded in 1987) committed to the promotion of social and economic rights and social justice especially of the poor and those without organized voice and influence. It began in 1984 as a support service community based organisation in the largest low-income settlement in Accra, organized around the demand for public health services from the municipal council. From the 1980’s, ISODEC grew into a predominantly rural water and sanitation promotion organization, pioneering the first national water strategy based on decentralized management of water systems and socially equitable distribution of resources within the water sector. ISODEC plays a pivotal role within the extensive network of organisations committed to sustainable human development through social empowerment and has built a reputation as leading advocate for global social and economic justice with research activities. ISODEC currently also provides basic needs services (health – specially Reproductive Health -, education and micro-finance). One of the programmes (Globalisation Response Programme - GREP) emphasizes the opposition to privatization of public services, such as water and the protection of the poor in public sector reforms.</p> <p>Members of the executive Council (10 persons) are of various expertise (Retired Broadcaster, Development Consultant, former National Chief Farmer, Catholic Bishop of Koforidua Diocese, Members of different Universities, Ministry of Health and the Institute of Local Government Studies.) 3 of the 10 members are women. More than 80 persons are full-time staff. Management structure: Senior Management Team (5 Persons) and Expanded Management Team (10 Heads of programmes and heads of affiliated organisations)</p> <p>Offices: Mamprobi (Accra), Sunyani (Brong Ahafo Region), Tamale (Northern Ghana), Bolgatanga.</p> <p>Affiliates: Public Agenda – newspaper (Accra), Centre for Public Interest Law – CEPIL (Accra).</p> <p>Subsidiaries: Cedi Finance Foundation (Kumasi) – micro-credits, mainly for women, BESSFA Rural Bank (Bawku-East Small Scale Farmers Association - Upper East Region).</p> <p>Partnerships: Muslim Relief Association of Ghana (MURAG) – promote secular education among Muslim families: Center for Private, Public Cooperation (CPPC – Ibadan, Nigeria); ORCADE (Burkina Faso).</p>
<p style="text-align: center;">International Development Association (IDA)</p>	<p>Member of the World Bank (WB)Group. In charge of CWSA-1 and CWSA-2, Upper West Region, Upper East Region, Ashanti Region, Brong-Ahafo, Western Region. - Apart from Danida, IDA is the only other donor agency that has provided substantial direct support to the CWSA Head Office (in 2003).</p>

<p>International Monetary Fund (IMF)</p>	<p>Member of the WB Group. Macroeconomic and structural adjustment policies are enforced by loans and debt relief conditions including fiscal austerity with cutbacks to reduce budget deficits, privatisation, de-regulation and trade liberalisation. Concerning the water sector, since 1999 loans have been provided on conditions that contain increased cost recovery, automatic tariff adjustments and PSP in the service sectors (INTERNATIONAL FACT-FINDING MISSION 2002).</p>
<p>Kreditanstalt für Wiederaufbau (KfW)</p>	<p>Financial support to EVORAP for water supply infrastructure – no promotion of sanitation. Ashanti Region, Eastern Region, Volta Region. Spare parts project in cooperation with DANIDA.</p>
<p>Professional Network Associates (ProNet)</p>	<p>Was set up in 1994 with the assistance of WaterAid. ProNet initiates and implements a variety of activities all aimed at creating wealth and reducing poverty in both poor rural and urban communities. In pursuing this commitment, ProNet provides services; either directly to villages or indirectly through district based implementing NGOs.</p> <p>Afram Plains Development Organisation (APDO) Afram Plains; Eastern Region</p> <p>Akwapim Community Development Programme (ACDEP)- DAWU; Eastern Region</p> <p>Obuomaa Rural Action Programme (ORAP) Mpraeso; Eastern Region</p> <p>Adansi West Water and Sanitation Team (WASHT) Obuasi; Ashanti Region</p> <p>New Energy Tamale; Northern Region</p> <p>Rural Aid- Bolgatanga; Upper East Region</p> <p>Binaba Area Community Health (BACH) Binaba; Upper East Region</p> <p>Activities of ProNet focus on capacity strengthening process of partners so they can design, implement and manage effectively and efficiently as integrated programme of water, sanitation and hygiene promotion in the community. By 2004 ProNet had constructed 320 Water supply Points to benefit 60,000 people in the Upper West and Greater Accra Regions. They also constructed 1700 Household latrines benefiting 17,000 people and have organised 320 WATSAN committee members</p> <p>ProNet since 1994 has developed working partnerships with WaterAid, UNICEF, UNDP, Plan International, National Development Planning Commission (NDPC) through the implementation of the National Poverty</p>

	Reduction Programme (NPRP), the World Bank, USAID, Ministries of Education, Health, Works and Housing, and CWSA. ProNet is a member of GAPVOD, coalition of NGOs in Health, Education and child rights and is currently facilitating the formation of NGOs in Water and Sanitation. (WATERAID 2002)
Training Research and Networking for Development (TREND)	TREND is a Resource Centre based in Kumasi/Ghana. The Group was established in 1989 as part of the International Training Network for Water and Waste Management.
UNICEF	Supporting water and sanitation activities as well as guinea worm eradication in Brong-Ahafo, Upper east Region, Volta Region, and Eastern Region
Water Aid	International NGO promoting water and sanitation projects. Established in 1981 by the UK water industries as a charity. Works through local POs, usually local NGOs, local government departments or private companies to conduct the projects' management. Water Aid provides financial support, training and technical advice as well as assistance in planning, budgeting and institutional development. Operative in Ghana since 1985, working through nine local partners - Professional Network Associates (ProNet-Wa and ProNet-Accra), Akuapem Community Development Programme (ACDEP), Afram Plains Development Organisation (APDO), Binaba Area Community Health Project (BACH), New Energy, Obuomma Rural Action Project (ORAP), Rural Aid, Water and Sanitation Health Team (WASHT) - that are located in 5 regions: Northern, Eastern, Upper West, Upper East, Eastern Regions, Accra. Water Aid's POs are recognized and respected locally, speak the local languages, know local customs etc. WaterAid engages in policy debate/advocacy – it established the Mole Conference Series -, empowers the poor communities to know their rights of access to safe water and effective sanitation, thus facilitating their demand. Networking with other sector players. Construction of hand-dug wells (HDW) fitted with hand pumps as the main technology for the sake of affordability. Boreholes only in areas where HDW are not feasible. Household and institutional latrines, hygiene promotion, gender mainstreaming. (WATERAID 2002; WATERAID 2003)
World Bank Group (WB)	Comprises, among others, IDA and the IMF. Initiator and leading implementer of the reforms in the water sector, leading the CWSP-1 as well as CWSP-2 in collaboration with DANIDA, CIDA and others. – Institutional and legal reforms prescribed by the WB played a key role in the design of the new framework of the water sector. This has included the separation of rural and urban water, resulting in the CWSA, and the creation of the PURC, the WSRS, and the WRC (INTERNATIONAL FACT-FINDING MISSION 2002):10).

<p style="text-align: center;">World Health Organisation (WHO)</p>	<p>WHO has selected a limited number of global priorities on which to focus over the four-year period (2002-2005). The global priorities selected on the basis of those criteria are: malaria, HIV/AIDS and TB; noncommunicable diseases (cancer, cardiovascular diseases and diabetes); tobacco; maternal health; food safety; mental health; safe blood; and health systems. The WHO Regional Office for Africa has decided to focus its attention on 12 priorities closely related to the 11 global priorities, but adapted to the regional context. These 12 priorities are: HIV/AIDS; tuberculosis; malaria; maternal health; child and adolescent health; strengthening of health systems; blood safety; humanitarian and emergency action; health promotion; noncommunicable diseases control including mental health; and poverty and health.</p> <p>http://www.who.int/countries/en/cooperation_strategy_gha_en.pdf</p>
<p style="text-align: center;">World Vision International (WVI)</p>	<p>In 1975, World Vision New Zealand first began sponsoring the Mampong Babies Home in Mampong Ashanti. By 1978, World Vision had six relief and development projects running, and 20 children were being sponsored. The field office first opened in Accra in 1979.</p> <p>After Nigeria expelled all foreigners in 1983, World Vision began a relief project to help returning unskilled workers. In 1984, drought and bushfires lead to a famine in the country. World Vision helped provide 260 metric tons of food to those affected. At that time, World Vision's involvement in the country extended to 55 child care projects helping 10,000 children.</p> <p>The Ghana Rural Water Project supplied water to rural people in 50 World Vision project areas not covered by government programs. The project has now run for over 20 years, and has supplied water to over 500,000 people. During the conflict in the north of the country, World Vision provided assistance to 30,000 displaced people, helping them to re-establish their homes and livelihood.</p> <p>Currently, World Vision has 26 projects operating in Ghana. This includes 15 ADPs, four Family Sponsorship Programs, and seven special projects.</p> <p>As of September 30, 2002, there were 31,236 sponsored children and 1,236 Families in Programme in Ghana. World Vision Ghana's budget for FY03 is US\$9,013,460.</p>

3.5. Private companies and consultants

Terms and abbreviations	Missions and responsibilities
Area mechanics	Regular service and repair of hand pumps. Are trained by CWSA contractors. Private mechanics, too, are supposed to provide their services at competitive market prices.
Drilling companies	Drilling of boreholes, geo-ecological site selection.
“Hardware” consultants, engineering contractors	Technical design and construction of civil works construction, i.e. small dam reservoirs, irrigation facilities, water supply and sanitation facilities comprising electrical/mechanical installations and repairs. Billing and collection. Water quality monitoring
Suppliers and dealers	e.g. Foundries Agricultural Machinery (Gh) Ltd.. Obtaining and selling the materials and (spare) parts needed. Originally, spare parts dealers were supposed to provide their services at competitive market prices.
Information providers	Local consultants and special services, by e.g. the WRIS institutions or by ISSER, are contracted by WRC, CWSA, etc. when required.
Intermediary water buyers and sellers	Providing water – e.g. water tankers – to the population outside the piped systems (78 % of the urban poor) and consumers who are connected but receive irregular service, at rates far in excess of those who rely on water from the piped water system. – There are also water vendors, who sell water from private wells and boreholes, even in towns where there is an existing water supply system.
Latrine artisans	Construction and repair of sanitation facilities on a commercial basis. Trained by CWSA consultants.
Pump caretakers	Oversee the correct use of the hand pump and its preventive maintenance on a commercial basis. Are trained by CWSA contractors.
“Software” consultants	Community mobilisation, training, hygiene education, monitoring and evaluation, designing policy guidelines, e.g. GIMPA or Nii Consult. NGOs, like WaterAid’s partners, may also be contracted by the CWSA to fulfil those tasks.
Non-governmental organisations	Acting as consultants to the projects under the NCWSP. According to MWH estimates there are more than 200 NGOs including international and district-based organisations involved in water and sanitation projects. – Many NGOs do not comply with the principle of community capital cost contributions that is promoted by the CWSA.

There are no reliable figures on the amount of private firms operating in the water sector. As a proxy for an assessment, in 2001 35 firms were reported to have responded to an advertisement by CWSA inviting firms to submit expressions of interest to provide O&M services to small towns. There are many more firms than the number that responded (SARPONG MANU 2001).

3.6. Research and science institutes

Terms and abbreviations	Missions and responsibilities
<p>Council for Scientific and Industrial Research (CSIR)</p>	<p>Established by NLC Decree 293 of October 10, 1968 and re-established by CSIR Act 1996 (Act 521) on November 26, 1996. Vision to become a Centre of Excellence in Research and Development (R & D) by generating technologies that are responsive to demands of the Private Sector and socio-economic development. Mission to generate and apply innovative technologies which efficiently and effectively exploit Science and Technology (S & T) for socio-economic development in the critical areas of agriculture, industry, health and environment and improve scientific culture of the civil society. Technologies developed are to be commercialized for Private Sector Development in Ghana and abroad. Mandate to pursue the implementation of government policies on scientific research and development, to advise the Minister on scientific and technological advances likely to be of importance to national development, to encourage co-ordinated employment of scientific research for the management, utilization and conservation of the natural resources of Ghana in the interest of development, to co-ordinate all aspects of scientific research in the country and to ensure that the Council, the research institutes of the Council and other organisations engaged in research in Ghana, co-ordinate and co-operate in their research efforts, to institute a system of contract research to ensure that research being carried out in the Council is relevant and cost effective, to encourage and promote the commercialization of research results, to undertake or collaborate in the collation, publication and dissemination of the results of research and other useful technical information, to encourage the training of scientific personnel and research workers through the provision of grants and fellowships, etc.</p> <p>http://www.csir.org.gh/</p> <p>The CSIR comprises 13 research institutions including the WRI (HSD and MSD are not part of CSIR. They are also not research institutions.)</p>

<p>Hydrological Services Department (HSD)</p>	<p>Based in Accra. Department under MWH, responsible for hydrological data collection on surface water. Responsible for operating the national hydrometric data collection network on stream flows and sediment transport Hydrological software is located in the HSD, for processing and assessing the hydrometric data. In the past long-standing relationship with the British. Supported by DANIDA to contribute to the WRIS.</p>
<p>International Water Management Institute (IWMI)</p>	<p>IWMI is a nonprofit scientific research organization focusing on the sustainable use of water and land resources in agriculture and on the water needs of developing countries. IWMI works with partners in the South to develop tools and methods to help these countries eradicate poverty through more effective management of their water and land resources.</p> <p>Mission: Improving water and land resources management for food livelihoods and nature.</p> <p>The objectives of IWMI's work:</p> <ul style="list-style-type: none"> • <i>Identify the larger issues related to water management and food security</i> that need to be understood and addressed by governments and policymakers. • <i>Develop, test and promote management practices and tools</i> that can be used by governments and institutions to manage water and land resources more effectively, and address water scarcity issues. • <i>Clarify the link between poverty and access to water</i> and to help governments and the research community better understand the specific water-related problems of poor people. • <i>Help developing countries build their research capacities</i> to deal with water scarcity and related food security issues. <p>Research Themes:</p> <p>IWMI's research is organized around five themes. The themes were selected based on two criteria: 1) they address issues crucial to developing countries, and 2) they comprise areas where IWMI has the resources and expertise to make a significant contribution.</p> <ul style="list-style-type: none"> • Integrated Water Resource Management for Agriculture • Sustainable Smallholder Land and Water Management • Sustainable Groundwater Management • Water Resource Institutions and Policies • Water, Health and Environment <p>IWMI has <u>research projects running in 21 countries</u> in Asia and Africa. Work is coordinated through regional offices located in India, Pakistan, South Africa, Sri Lanka and Thailand. The Institute has subregional offices in Ethiopia, Ghana, Nepal, Uzbekistan, China, and Laos. The Institute has a multidisciplinary approach to water management research. Most of IWMI's research combines the expertise of economists, agronomists, hydrologists, engineers,</p>

	<p>sociologists, management specialists and health researchers. The research team is composed of approximately 100 scientists from 16 different countries.</p> <p>Funding: IWMI is a member of the Future Harvest group of agricultural and environmental research centers. It receives its principal funding from governments, private foundations, and international and regional organizations known as the Consultative Group on International Agricultural Research (CGIAR), which contribute to poverty eradication.</p> <p>DONORS: IWMI's funding support is provided by the following governments, government agencies, development banks, and foundations: African Development Bank, Asian Development Bank, Australia, Belgium, Cambodia, Canada, China, Denmark, Food and Agriculture Organization, Ford Foundation, France, Germany, India, IDRC, Iran, Ireland, Japan, Netherlands, Norway, South Africa, Sri Lanka, Sweden, Switzerland, UNEP, UNESCO, United Kingdom, USA, World Bank. The Governments of India, Iran, Nepal, Pakistan, South Africa, Sri Lanka, and Thailand provided program support for IWMI-related activities in those countries.</p> <p>http://www.iwmi.cgiar.org/about/</p>
<p>Kwame Nkrumah University of Science and Technology (KNUST)</p>	<p>Based in Kumasi. The Kwame Nkrumah University of Science & Technology (KNUST) (formerly the University of Science and Technology) succeeded the Kumasi College of Technology, which was established by a Government Ordinance on October 6, 1951. Faculty of Agriculture, School of Engineering, College of Art, Faculty of Pharmacy, Institute of Renewable Natural Resources, Department of Freshwater Fisheries and Watershed Management, Faculty of Science, Institute of Mining and Mineral Engineering, Faculty of Social Sciences, Faculty of Environmental & Development Studies, Institute of Land Management & Development</p> <p>INSTITUTES & CENTRES which offer research, technical training, consultancy and other specialised services to government, private industry and other user-agencies: Technology Consultancy Centre (TCC), Bureau of Integrated Rural Development (BIRD), Training Network Centre (TNC), Centre for Cultural Studies (CCS), Institute for Technical Education (ITE), Distance Learning Centre (DLC) . (http://www.knust.edu.gh/)</p>

<p>Meteorological Services Department (MSD)</p>	<p>Based in Accra. Department under the Ministry of Communication. Designed initially as a measuring station at the airport, Data have to be paid for. Major income from aviation services. Has become an independent commercial agency now known as Ghana Meteorological Agency (GMA). The MSD exists to provide meteorological information by collecting, processing, archiving and dissemination of meteorological information to end users: Public weather forecast on daily basis (national weather) on radio and television, collecting, processing, storing and disseminating meteorological information, undertaking collaborative work with Agricultural Agencies and others on meteorological related matters and providing expert advice etc. Clients are the General Public, Government, Armed Forces, Civil & Military Aviation, Shipping Industry, Agricultural Institutions, Commercial Institutions, Water Resource Development Management Institutions, Volta River Authority (VRA), GWCL, Water Research Institute (WRI) etc.</p> <ul style="list-style-type: none"> - Information services to the VRA provided on the basis of a standing agreement between the two organizations. Rainfall and Evaporation data for management of the hydro-electric dams at Akosombo and Kpong, seasonal forecast Consultancy Services. - 10 day rainfall bulletin to WRI as per agreement between MSD and WRI. - GENERAL SERVICES include: a) Daily weather forecast, b) Individual request for weather information for specific functions eg. Public/private sector institutions and corporate bodies, c) Meteorological Information to the public /private sector institutions and corporate bodies. <p>(http://www.meteo.gov.gh/about_gmsd.html)</p>
<p>University of Development Studies (UDS)</p>	<p>Based in Tamale. The University for Development Studies was established in 1992 as a multi-campus institution to serve the four northern regions of Ghana (Brong-Ahafo, Northern, Upper East and Upper West Regions) in which rural poverty and environmental degradation are generally prevalent. The objective is not only to train students to live and work in rural communities, but also to equip them with the relevant skills and expertise to prepare them for self-employment. The Third Trimester Field Practical Training Program is a distinguishing feature of the University. The University currently focuses on studies in: Agricultural Sciences, Medicine and Health Sciences, Applied Sciences, Integrated Development Studies and Inter-disciplinary Research. - The University has five campuses spread over the four regions: Nyanpala Tamale campus (houses the Faculty of Agriculture), Navrongo campus (hosts the Faculty of Integrated Development studies). Tamale campus (for the School of Medicine and Health Sciences). Kintampo campus (houses Allied Health Sciences). Wa campus (under-construction will be home to the Faculty of Applied Sciences). (http://www.ghanauniversities.com/university_for_development_stud.htm)</p>

<p>University of Ghana Legon</p>	<p>Premier university of the country based in Accra. Faculties of Arts, Social Sciences, Agriculture and Science. The Faculty of Social Sciences comprises Departments of Archaeology, Economics, Geography and Resource Development, History, Library and Archival Studies, Nursing, Political Science, Psychology and Sociology as well as ISSER and CSPS (GVP partners). Scientists from the Faculties of Agriculture and Science used to work in the Volta River Research Project.</p>
<p>Water Research Institute (WRI)</p>	<p>Based in Accra. Established by merging the former Institute of Aquatic Biology and the Water Resources Research Institutes in 1996. It aims at "generating appropriate technologies that are responsive to the private sector and socio-economic development" (WRI 2002:3). One of the major tasks is to generate, analyse, and disseminate reliable information on the water resources of Ghana. Continued support by WHO, FAO, GTZ, UNESCO, DANIDA, French Embassy.</p>
<p>Water Resources Information System institutions (WRIS)</p>	<p>WRI, HSD, MSD the providers of data and information constitute the WRIS, which is an effort by DANIDA at setting up a coherent water monitoring system, of which GVP will play a key role. The baseline data on water which is being provided by HSD (surface water), MSD (meteorological parameters) and WRI (groundwater and water quality) is to be enhanced through the establishment of a well functioning hydrometric network in selected basins, assessment of sediment load for water resources management purpose, standardisation of documentation on hydrogeological data and thematic mapping, monitoring of groundwater resources and their occurrences, assessment of biological indicators of pollution and strengthening of meteorological data service delivery (DANIDA 2003a). Non-functioning measuring stations are to be rehabilitated and additional measuring stations will be set up with the assistance of DANIDA. Countrywide there are 150 stations, 76 are rehabilitated by the HSD assisted by DANIDA. - WRC is in the process of developing for parliamentary adoption a Drilling Licence and Groundwater Development Regulations to ensure the provision of groundwater data.</p>

4. Annex I: Chronicle

1928	<ul style="list-style-type: none"> Development of the water sector began with a piped system in Cape Coast followed by Accra and other regional capitals – Public Works Department (PWD) was responsible for urban and rural water supply in Ghana
1945	<ul style="list-style-type: none"> Department of Town and Country Planning established. Responsible for designing plans and controlling settlements, based on mapping information by the Survey Department.
1948	<ul style="list-style-type: none"> Rural Water Development Department was established
1957	<ul style="list-style-type: none"> After independence the Ghana Meteorological Services Department (MSD) was established under the Ministry of Communications
1958	<ul style="list-style-type: none"> Water Supply Divison of the Public Works Department (PWD), with its headquarters at Kumasi, became a separate entity responsible to the Ministry of Works and Housing (MWH)
1959	<ul style="list-style-type: none"> Severe water shortage in 1959 - WHO recommended to create an institution like GWSC
1961	<ul style="list-style-type: none"> Volta River Development Act (Act 46) Founding the VRA, whose primary function is to supply electrical energy for industrial, commercial and domestic use in Ghana.
1962	<ul style="list-style-type: none"> State Lands Act (Act 125) Volta River Authority (VRA) established
1965	<ul style="list-style-type: none"> Water Supply Division under PWD was transformed into Ghana Water and Sewerage Corporation (GWSC) (Act 310 of 1965)
1967	<ul style="list-style-type: none"> Volta River Development Act Amendment Decree (N.L.C.D. 211)
1977	<ul style="list-style-type: none"> Supreme Military Council Decree 85: Irrigation Development Authority Decree (S.M.C.D. 85)
1981	<ul style="list-style-type: none"> Start of the International Drinking Water Supply and Sanitation Decade (IDWSSD)
1983	<ul style="list-style-type: none"> Economic Recovery Programme (ERP) Structural Adjustment Programme (SAP) – operating time SAP until 1993.
1985	<ul style="list-style-type: none"> Water Aid International started operations in Ghana. Environmental Action Plan was prepared
1986	<ul style="list-style-type: none"> Minerals and Mining Law (PNDC Law 153):
1987	<ul style="list-style-type: none"> Integrated Social Development Centre (ISODEC) was founded Five Year Rehabilitation and Development Plan was prepared, to guide implementing the reforms intended by the ERP Water and Sanitation Conference sponsored by the MWH on behalf of GWSC

	<p>(September) – Outcome was the Water Sector Rehabilitation Project 1995 (WSRP)</p> <ul style="list-style-type: none"> • Irrigation Development Authority Regulations (L.I. 1350)
1988	<ul style="list-style-type: none"> • Beginning of Decentralisation Policy • Local Government Law (PNDC Law 207)
1990	<ul style="list-style-type: none"> • End of the IDWSSD • GoG started restructuring the Ghanaian Water Sector.
1991	<ul style="list-style-type: none"> • Legislative Instrument, Local Government (Establishment) Instrument (L.I. 1514) for the establishment of Urban, Zonal and Town Councils and of Unit Committees. • Community Water and Sanitation Programme-1 (CWSP-1) was adopted at the Kokrobite conference.
1992	<p>Fourth Republican Constitution of the Republic of Ghana</p>
1992	<ul style="list-style-type: none"> • University of Development Studies (UDS) was established
1993	<ul style="list-style-type: none"> • Civil Service Law (PNDC Law 327) • Local Government Act (Act 462) • District Assemblies' Common Fund (DACF) established • National Community Water and Sanitation Programme designed • Civil Service Law (PNDC Law 327) • Danish International Development Agency (DANIDA) started activities in the water supply and sanitation sector in Ghana. • Close of ERP and SAP • Ghana Environmental Action Plan (GERMP) became effective
1994	<ul style="list-style-type: none"> • Environmental Protection Agency Act (Act 490) • Formation of Environmental Protection Agency (EPA) • Office of the Administrator of Stool Land Act (Act 481) • Minerals And Mining (Amendment) Act (Act 475) • Lands Commission established • Professional Network Associates (ProNet) was set up. • MWH with assistance of WB engaged Halcrow & Partners LTD to undertake a study and submit proposals for the Restructuring of the Water Sector • Formation of Environmental Protection Agency (EPA) • Community Water and Sanitation Division (CWSD) established within GWSC • Concept of “Water Resources Management” of the World Bank (WB) was introduced to the Ghanaian rural water sector through CWSP-1 • Launch of National Forest and Wildlife Policy
1995	<ul style="list-style-type: none"> • Local Government (Accra Metropolitan Assembly) Establishment Instrument (L.I. 1615) • Association of Water and Sanitation Development Boards (AWSDB) was established. • Water Sector Rehabilitation Project (WSRP) Mandate: rehabilitation of 34 urban water supply systems. Funds: GoG, GWSC (now: GWCL) and Donors. Intention: inter alia, increasing of Private Sector Participation (PSP); followed by the SIP. Operating time until 1998. • national workshop in February: Halcrow Consultants considered recommendations for the restructuring of water sector at a.

1996	<ul style="list-style-type: none"> • Council for Scientific and Industrial Research (CSIR) re-established under Act 521 • Water Resources Commission Act (WRC Act 522) passed • Water Research Institute (WRI) established. • Gesellschaft für Technische Zusammenarbeit (GTZ) started to give technical support to the CWSA • Water Resources Management Study (WRMS): 1996-1998. Objectives: promotion and facilitation of cross-sectoral management of water resources and development of a water resources management strategy that will inform national policy and investment in the water sector. • Forestry Development Master Plan (planned for 1996-2020) for guiding the implementation of the National Forest and Wildlife Policy (1994)
1997	<ul style="list-style-type: none"> • Public Utilities Regulatory Commission Act (PURC Act 538) • Water Sector Restructuring Secretariat (WSRS) created to guide the PSP process. • First Medium-Term Development Plan of Ghana Vision 2020 (until 2000)
1998	<ul style="list-style-type: none"> • Community Water and Sanitation Agency Act (CWSA Act 564) • Strategic Investment Programme (SIP) prepared as an update to the 1993 NCWSP, the targets being adapted in the process, taking into account the MDGs (ADF 2003:7-8). • National Society of Black Engineers-Student chapter of Kwame Nkrumah University of Science and Technology (NSBE-KNUST) formed under Ghana Institution of Engineers (GhIE) • First International Conference of NSBE in Ghana • Formation of the WRC
1999	<ul style="list-style-type: none"> • Environmental Assessment Regulations (L.I. 1652) • Northern Region Water and Sanitation Project (NORWASP) started. • Forestry Commission Act (Act 571) • Ghana Water Company Limited (GWCL) established. • Second international Conference of NSBE in Ghana • Community Water and Sanitation Programme-2 (CWSP-2) started. • WRC became operational. • Launch of Natural Resource Management Programme (NRMP)
2000	<ul style="list-style-type: none"> • The 2nd phase of the Forest Sector Development Project (FSDP-2) commenced by Forestry Commission under the Natural Resource Management Programme (NRMP) – the Government’s major vehicle for implementing sector policies, which is led by the Ministry of Lands and Forestry (MLF). • Close of First Medium-Term Development Plan of Ghana Vision 2020
2001	<ul style="list-style-type: none"> • Water Use Regulations (LI 1692) adopted
2003	<ul style="list-style-type: none"> • GPRSP approved • Public Procurement Act passed
2004	<ul style="list-style-type: none"> • Local Government Service Act passed in January 2004 • Ghana Meteorological Agency Act passed in December 2004

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