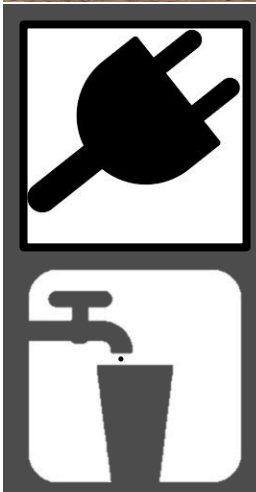

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EFR Involve 2013:

Ghana GENERAL

Contents

THE CURRENT GOVERNANCE AND INSTITUTIONAL STRUCTURE

Ghana is a multiparty constitutional democracy with two spheres of government: central and local. According to its constitution, 'Ghana shall have a system of local government and administration which shall, as far as practicable, be decentralized.'

Ghana is a nation governed by the Rule of Law and the main relevant legislation is the Local Government Act 1993.

Central government

Ghana is currently classified as a republic with a constitution that divides powers among a president, parliament, cabinet, council of state, and an independent judiciary.

The current constitution focuses upon power sharing and calls for a system of checks and balances aimed at preventing future coups, dictatorial government, and one-party states. The government exercises executive power, whereas legislative power is vested in both the government and parliament. The judiciary is independent of the executive and the legislature.

Ghana is divided into ten administrative regions, each headed by a regional secretary. The ten regions and their regional capitals are:

- Greater Accra Region (Accra)
- Eastern Region (Koforidua)
- Central Region (Cape Coast)
- Western Region (Sekondi Takoradi)
- Volta Region (Ho)
- Ashanti Region (Kumasi)
- Brong-Ahafo Region (Sunyani)
- Northern Region (Tamale)
- Upper East Region (Bolgatanga)
- Upper West Region (Wa).

Local Government

The executive decentralization of Ghana is achieved at a regional and district level, with the latter serving a second-level administrative function.

Regional Administration

Regional administration is achieved through the *Regional Coordinating Council* (RCC) that has the overall responsibility for local government administration within the region. This council comprises of the Regional Minister and his deputy, representatives of the Regional House of Chiefs, the Municipal and District Chief Executives of the region and the Presiding members of the District Assemblies in the region. Within this framework, it is the Regional Minister that serves a direct representation of the President within the region. According to the Ghanaian constitution, the Regional Minister shall represent the President in the region; and be responsible for the co-ordination and direction of the administrative machinery in the region. Contact details of all Regional Ministers can be found in appendix 1.

The Local Government Act classifies three administrative levels within Ghana– metropoles, municipalities and districts-, all of which are governed by local assemblies The metropolitan assemblies cover urban areas with populations over 250,000. Municipal assemblies are single-town councils with populations of 95,000 and more. Finally, the district assemblies cover a wider geographical area combining rural areas and small towns. In addition to these assemblies, there are also sub-structures that do not hold any legislative or rating powers and undertake activities delegated to them by the assemblies. These sub-structures include sub-metropolitan, district, urban, town, zonal and area councils and unit committees. This governance structure is figured in figure 1.

District Administration

Directly below the *Regional Council* comes the *District Assembly*. The *District Assembly* is labelled the highest political authority in the district and serves to "exercise power and administrative authority … provide guidance, give direction to and supervise all other administrative authorities in the district".

At the helm of the district assembly is the District Chief Executive who is responsible for the day-to-day executive and administrative functions of the assembly and is the chief representative of the Central Government. The assembly itself is led by an

executive committee, comprising of not more than one-third of all assembly members. The executive committee normally has a number of sub- committees – development planning, social services, works, justice and security, finance and administration – which make recommendations to the executive committee. Seventy percent of the assembly members are elected by universal adult suffrage, whilst thirty percent are appointed by the president, on the basis of their experience and specialized expertise.

On the district-level, it is the national parliament that prescribes the functions of the DA with respect to the formulation and execution of plans, programmes and strategies for the effective mobilization of the resources necessary for the overall development of the district; as well as the levying and collection of taxes, rates, duties and fees. For the purposes of funding, the DAs have access to the District Assemblies Common Fund that comprises of quarterly instalments made by the National Parliament for the purposes of development.

A complete outline of these local assemblies can be found in Appendix 2.

Town and Area Councils

Municipal and *District Assemblies* are further divided into *Town* and *Area Councils*, depending on the population and land area of the district. A compact settlement or town with a population of 5,000 or more qualifies to have a *Town Council* status. An *Area Council* is made up of 2 or more towns with a combined population of 5,000 or more inhabitants. *Town* and *Area Councils* are the main actors on the local level and are supported by *Unit Committees.* These Units normally exist in rural areas for a settlement or a group of settlements with a population of between 500–1000 inhabitants. They serve as consultative bodies at the grassroots and are in close contact with and organize the people for communal labour, revenue mobilization, maintenance of environmental sanitation and implementation and monitoring of self-help projects.

Figure 1: Overall Government Structure

<table>
<tr><td colspan="3">CENTRAL GOVERNMENT

President

Council of Minister

Council of State

Unicameral Parliament</td></tr>
<tr><td colspan="3">10 x REGIONS

Regional Coordinating Council, RRC

Regional Ministry</td></tr>
<tr><td colspan="3">LOCAL GOVERNMENT</td></tr>
<tr><td>6 x METROPOLITAN

Metropolitan Assembly

over 250 000 inhabitants</td><td>49 x MUNICIPAL

Municipal Assembly

over 95 000 inhabitants</td><td>161 x DISTRICT

District Assembly

Vast geographical areas, consist of both rural and small urban areas

over 70 000 inhabitants</td></tr>
<tr><td>13 x Sub-metropolitan district council</td><td>Zonal council</td><td>Urban/Town/Area councils</td></tr>
<tr><td colspan="3">Unit committees:

In urban areas with about 1500 inhabitants

In rural areas with about 500–1000 inhabitants</td></tr>
</table>

Chieftaincy or Neo-Traditional Authority (NTA)

Parallel to the state administration, several areas in Ghana maintain various structures of traditional rulership, which are protected by the constitution. Officially the role of traditional leaders is to mobilise people to pursue development goals at the local and community levels. In addition to this, politicians often go to NTAs to ask advice on political matters given that these actors tend to live in close proximity with the people. This traditional rulership often consists of a chief and elders, nevertheless in the Northern part of Ghana, landlords and landladies also play a leadership role within local compounds[1].

Chiefs often serve to arbitrate and decide political and economic questions. As such, upon entry into a village, any foreign entity will need to gain the acceptance and support of the local chief. As Barbara Schroijen-Bax puts it "the chief is the boss and you have to visit the chief to ask permission for what you want to do" (Barbara Schroijen-Bax, Stichting Bouwen). The elders serve as advisors to the chief and are often also consulted on matters involving foreign entry. Finally, landlords and landladies live within local compounds and serve as moral and spiritual guides within their areas. In addition to this, landlords/landladies may negotiate with one another on matters involving their respective compounds, e.g. floor construction.

The importance of so-called 'Chieftainship' is exemplified within the constitution, where it is stated that Parliament shall have no power to enact any law which:

a) confers on any person or authority the right to accord or withdraw recognition to or from a chief for any purpose whatsoever; or
b) in any way detracts or derogates from the honour and dignity of the institution of chieftaincy.

[1] Within the Northen Region (Tamale), it was observed that villages are organised into smaller compounds consisting of 4/5 households. These compounds are enclosed by low mud walls and tend to be situated relatively close to one another, circa 5-10 metres.

The hierarchy, or structure of neo-traditional actors is roughly as follows[2]:

- Paramount Chief (Omanhene): in charge of traditional area, have thousands of people under them. There are about 200 Paramount Chiefs in Ghana
- Divisional Chiefs (Mpakanfos): in charge of district
- Local Chief (Odekro): in charge of a town, most viable neotraditional function at the present time
- Linguist (Tsiami): speaker of the chief[3]
- Queenmother: nominates new chief and has advisory role
- Stool father: owner of the stool, important factor in the mobilization of communal labour.

Perceived power and duties of Neo-Traditional Actors

At the village level, NTAs are political and spiritual leaders, mediators, custodians of the land and organisers of communal labour. Because of their socialisation and their experience as representatives and mediators, they already possess considerable amounts of cultural and social capital, which facilitates their entry into the development business. It is an upcoming trend that Chiefs have attainted higher education. However a big educational gap between north and south exists (in general, education is much higher in the urbanized south of Ghana).

Based on the empirical results of Knierzinger (2011) and further qualitative research, Knierzinger concludes that there are three main roles attributed to local chiefs:

1. Development broker: Bierschenk defines the local development broker as an intermediary who contributes to the influx of external resources from the development sector to a locality, where he plays a significant political role or where he is trying to establish political standing (Bierschenk/Olivier de Sardan 2002: 2).
2. Gatekeeper: Upon arriving in many of the villages we visited, it was clear that the chief serves as a link between population and officials (central government or donors). What is key to consider here is that this could present a source for information asymmetry between officials and locals.
3. Patron: Chiefs tend to serve as patrons of traditions, customs and land.

[2] Information from: http://content.ghananation.com/articles/Introduction-to-Chieftaincy.aspx
[3] In some areas is it disrespectful to talk to the chief directly. Besides some chiefs lack knowledge of English. Therefore a linguist speaks on behalf of the Chief to outsiders.

Research conducted by Knierzinger (see table 2 of appendix 3) confirms the importance of the influence of the Local Chiefs and shows that even though local Chiefs generally do not have the legal and monetary means to realize and employ new projects, local inhabitants do perceive their powers to be greater than those of the official Members of Parliament (MPs).

What should be taken into account when approaching local authorities?

In the literature it is often emphasized that cooperation and understanding of the local Chief is required in order to succeed and build credibility amongst the locals. 'Rural development projects… often failed to improve local well-being … but succeeded only in channelling state resources into the hands of influential local agents who cooperate and collude with the government' (Boone, 1998). Besides this, little practical information on the challenges faced by NGOs trying to enter rural Ghana can be found. Communicaid however does give some useful information on the conventions and working practices employed in Ghana:

- Punctuality in Ghanaian business culture is not seen as a main priority. The concept of time in Ghana is looked at in a relaxed and flexible way.
- Although Ghanaians have a flexible approach to time, it is necessary to make appointments before doing business in Ghana.
- Hierarchy is an important concept in Ghanaian culture. Respect is shown to those with wealth, age, experience and position.
- When visiting Ghana, show respect to older people. Always ask your Ghanaian business partners for advice about how to refer to people so as to not cause offense. They will appreciate the interest you show in their culture.
- Ghanaians spend time getting to know their business partners so be sure to allow time for relationship building with your counterparts in Ghana. The first few meetings are often spent getting to know the counterparts and then business can be discussed.
- Silence is a common way of responding to a question that can't be answered without causing discomfort or causing a loss of face. Don't try to fill the silence and if something is sensitive, ask your counterpart in private.
- Titles are important and should be used to show respect to those with authority and credentials.
- Ghanaians are used to an indirect communication style. Bad news or turning something down will be prevented at any time as this could cause a loss of

face. In general, Ghanaians find it very difficult to say 'no' and confrontation and embarrassment will be avoided if at all possible.

- Greetings are very important in Ghana so always spend time during the greeting process. Show interest in the family, health and social life. Do not be surprised if business is not discussed at all during the first meeting(s).
- A handshake is the most common way to greet foreigners. Always use the right hand or both hands. Muslims most likely not shake hands with the opposite sex, Christians on the other hand will. Older people should always be greeted first as a sign of respect.

From our own experience when visiting the village Detoyili – Kpehiyili, in the Northern Region it is common that when you meet the chief to kneel down, clap your hands and say 'Na', repeating this a several times.

Institutional Infrastructure

Regarding our scope of business (development activities provided by a Dutch NGO using the social enterprise model), The Local Government Act 1993 provides for the following:

"The policy on development planning in Ghana encourages a bottom-up approach by which planning is initiated at community level and harmonized at the district and national levels. Public hearings to obtain input from local people are required at both the community and district level."

Development Planning

The regional coordinating councils (RCCs) serve as an interface between the different spheres of government. The RCCs' key roles are to ensure effective coordination of development activities in the regions. Among others, these functions include the formulation of district development plans.

The planning functions of the district assemblies are enshrined in Part II of the Local Government Act 1993, and strong links have developed between the assemblies and the National Development Planning Commission (NDPC).Each district assembly must present an annual development plan and budgetary estimates to its general assembly for approval. The approved development plans and budgets of district assemblies are collated by the RCCs and then submitted to the NDPC for approval.

Service provision to citizens is a responsibility shared between the different levels of government in Ghana. Relating to the scope of our business (water supply and

energy), the districts are responsible for water supply, while the central government retains control over electricity policy.

Governance and Corruption Profile

In 2010, Ghana ranked 62 out of 178 countries with a score of 4.1 out of a clean score of 10 on Transparency International's Corruption[4] (Perceptions Index (CPI) (Transparency International, 2010). Despite being a worrying score globally, this places Ghana on the top 10 least corrupt countries surveyed in the sub-Saharan Africa region, ranking 7 out of 47.

According to the 2009 World Bank's worldwide governance indicators, Ghana has also consistently improved its performance in terms of control of corruption over the past few years, scoring 59,5 % on a 0 to 100 scale in 2009 compared to 47,6 in 2004. The country has also achieved significant progress on all other dimensions of governance, including government accountability, political stability, government effectiveness, regulatory quality and rule of law. (Transparency International, 2010)

Reflecting these positive trends, Ghana remains one of the easiest places to do business in West Africa and has been ranked as one of the top 10 economies for doing business in Africa as a whole (World Bank/IFC, 2010). Only 9,9 % of the firms surveyed by the 2007 World Bank Enterprise Survey identified corruption as a major constraint to doing business in the country, compared to an average of 37,2 % in other African countries (World Bank, 2007).

However, despite these relatively positive results when compared to other countries in the region, corruption remains a major challenge in the country. The government has a strong anti-corruption legal framework in place, but faces challenges of enforcement. (Transparency International, 2010). Specifically in the water sector, allegations of corruption exist and involve high-ranking government officials but also technicians from water companies who are providing illegal water connections (Transparency International, 2011). Corruption may lead to and or be the consequence of inequity in access to water supply services, thus increasing vulnerability of individuals or population groups. It may also decrease the efficiency of water operators. Reducing opportunities for corruption and increasing integrity may thus improve financial sustainability and performance of water services as well as increase access. NGOs and the international community play an important role in

[4] Abuse of entrusted power for self or group benefit

supporting local anti-corruption efforts. An efficient way to fight corruption not only requires enhancing integrity but also engaging actors in dialogue to find common solutions and encourage collective action to rebuild trust and create change.

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World Bank/IFC (2010) Doing business. Retrieved on June, 12th, 2013 from http://www.doingbusiness.org/rankings

Further resources:

List of paramount chiefs

http://www.chieftaincy.org/index.php/paramount/14-paramount-cr

Communicaid doing business in Ghana:

http://www.communicaid.com/access/pdf/library/culture/doing-business-in/Doing%20Business%20in%20Ghana.pdf

Information on districts of Ghana

http://www.ghanadistricts.com/region/?r=2&sa=12

Appendix 1 - Regional Information

Ghana is divided into 10 administrative regions: Ashanti, Brong-Ahafo, Central, Eastern, Greater Accra, Northern, Upper East, Upper West, Volta, and Western.

Ashanti

Regional Minister: Hon. Erick Opoku

Ashanti consists of 27 administrative districts. The Regional Minister is the political Head of the region, and the Chairman of the Regional Co-ordinating Council. Other members of the Regional Co-ordinating Council include the Regional Co-ordinating Director (Secretary), all the 27 Metropolitan, Municipal and District Chief Executives and Presiding members, as well as two representatives from the Ashanti Regional House of Chiefs. The Metropolitan, Municipal and District Assemblies are headed by Metropolitan, Municipal and District Chief Executives that are assisted by District Coordinating Directors who are responsible for the day-to-day running of the districts.

The region has 36 Traditional Councils, each headed by a Paramount Chief. The Traditional Councils are the decentralized units of administration by traditional rulers and are used to mobilize the people at the local and community levels for development. The spiritual head of the region is the Asante King (Asantehene) Otumfuo Osei Tutu. All the Paramount Chiefs in the region are members of the Ashanti Regional House of Chiefs, with the Asantehene as the President of the house.

- The Regional MinisterAshanti Regional Coordinating CouncilP.O. Box 38, KumasiAshanti RegionGhanaW / AfricaTel.: (+233 3220) 24933/22444Fax: (+233 3220) 27768
- District Chief Executive of Adansi South: Hon. Benjamin Anhwere adansisouthdce@ghanadistricts.com

Brong Ahafo

Regional Minister: Hon. Paul Evans Aidoo

Brong Ahafo has 22 administrative Municipals and Districts. Sunyani is the administrative headquarters of the region, where the Regional Minister resides. The region has 37 Town Councils and 106 Area Councils.

- The Regional MinisterBrong Ahafo Coordinating CouncilP. O. Box 104, SunyaniBrong Ahafo RegionGhanaW / Africa
- Tel: (+233 3520) - 27345/27191Fax: (+233 3520) – 27345

Central

Regional Minister: Hon. Samuel Sarpong

Consists of 17 administrative Metropolitan, Municipals and Districts.

- The Regional MinisterCentral Regional Coordinating CouncilP. O. Box 202, Cape CoastCentral RegionGhanaW / Africa
- Tel: (+233 3320) - 32112/32023Fax: (+233 3320) – 32624

Eastern

Regional Minister: Hon. Helen Adjoa Ntoso

The region has 21 administrative Municipals and Districts with Koforidua as the regional capital.

- The Regional MinisterEastern Regional Coordinating CouncilP. O. Box 303, KoforiduaEastern RegionGhanaW / Africa
- Tel: (+233 3420) - 22365/22652

Greater Accra

Regional Minister: Hon. Julius Debrah

This region is made up of 16 districts.

- The Regional MinisterGreater Accra Regional Coordinating CouncilP. O. Box M. 196, AccraGreater Accra RegionGhanaW / Africa
- Tel: (+233 302) - 222690/220015Fax: (+233 21) – 23327

Northern

Regional Minister: Hon. Bede Anwataasumo Ziedeng

This is the largest region in Ghana in terms of land area and consists of 20 districts. In addition, the region has four paramount chiefs, namely: the Yaa Na based in Yendi; the Yagbon Wura in Damango; the Bimbila Naa in Bimbila; and the Nayiri in Nalerigu. Each represents a major ethnic group.

- The Regional MinisterP. O. Box 100, TamaleNorthern RegionGhanaW / Africa
- Tel: (+233 3720) - 22879/22927Fax: (+233 3720) – 22727

Upper East

Regional Minister: Hon. Alhaji Limuna Mohammed Muniru (Ag.)

Consists of 13 districts.

- The Regional MinisterUpper East Regional Coordinating CouncilP. O. Box 50, BolgatangaUpper East RegionGhanaW / Africa
- Tel: (+233 3820) - 22040/22414Fax: (+233 3820) – 22040

Upper West

Regional Minister: Hon. Ephraim Avea Nsoh (Dr.)

Consists of 10 districts.

- The Regional MinisterUpper West Regional Coordinating CouncilP. O. Box 15, WaUpper West RegionGhanaW / Africa
- Tel: (+233-3920) - 22414 / 22040Fax: (+233-3920) – 22040

Volta

Regional Minister: Hon. Nii Laryea Afotey Agbo

Consists of 18 districts.

- The Regional MinisterVoltal Regional Coordinating CouncilP. O. Box 119, HoVoltal RegionGhanaW / Africa
- Tel: (+233 3620) - 28301/28318/28303/28103Fax: (+233 3620) - 27093/27095

Western

Regional Minister: Hon. Ebenezer Kwadwo Teye Addo

The region is comprised of 17 districts. At the community level, there are two urban councils, thirty town councils and several unit committees under the jurisdiction of the district assemblies. These local authorities complement the functions of the district assemblies.

- The Regional MinisterWestern Regional Coordinating CouncilP. O. Box 304, Sekondi - TakoradiWestern RegionGhanaW / Africa
- Tel: (+233 3120) - 46141/46756/46012Fax: (+233 3120) - 46988

ALL DISTRICT CONTACTS (Telephone and/or Fax numbers):

http://www.ghanadistricts.com/districts/?dcontacts

Appendix 2 - Break down of Metropolitan, Municipal and District Assemblies in Ghana

			Total MMDAs – 216
REGION (10)	**METROPOLITAN (6)**	**MUNICIPAL (49)**	**DISTRICT (161)**
	Kumasi	Asante Akim Central	Adansi North
		Asokore Mampong (New)	Adansi South
		Bekwai	Afigya-Kwabre
		Ejisu Juaben	Ahafo Ano North
		Mampong	Ahafo Ano South
		Obuasi	Amansie Central
		Offinso South	Amansie West
			Asante Akim North (New)
			Asante Akim South
			Atwima Kwanwoma
			Atwima Mponua
			Atwima Nwabiagya
			Bosome Freho
			Bosomtwe
			Ejura Sekyedumase
			Kwabre East
			Offinso North
			Sekyere Afram Plains (New
			Sekyere Central
			Sekyere East
			Sekyere South
			Kumawu
TOTAL	**1**	**7**	
BRONG AHAFO		Asunafo North	Asunafo South
		Atebubu Amantin	Asutifi
		Berekum	Asutifi South (New)
		Dormaa	Banda (New)
		Kintampo North	Dormaa East new

			Kintampo South
			Nkoranza North
			Nkoranza South
			Pru
			Sene
			Sene West (New)
			Sunyani West
			Tain
			Tano North
			Tano South
			Techiman North (New)
		8	
CENTRAL	Cape Coast	Agona West	Abura/Asebu/Kwamankese
		Assin North	Agona East
		Effutu	Ajumako/Enyan/Essiam
		Komenda/Edina/Eguafo/Abire	Asikuma/Odoben/Brakwa
		Mfantseman	Assin South
		Upper Denkyira East	Awutu Senya East (New)
			Awutu Senya
			Ekumfi (New)
			Gomoa East
			Gomoa West
			Twifo/Heman/Lower/Denky
			Twifo-Ati Mokwa
			Upper Denkyira West
TOTAL	**1**	**6**	
EASTERN		Birim Central	Afram Plains South (New)
		East Akim	Akuapim South (New)

		Nsawam	Atiwa
		West Akim	Ayensuano (New)
		Yilo Krobo	Birim North
			Birim South
			Fanteakwa
			Kwaebibirem
			Kwahu East
			Kwahu North
			Kwahu South
			Suhum
			Upper Manya Krobo
			Denkyembour (New)
			Upper West Akim (New)
		8	
GREATER ACCRA	Accra	Adenta	Ada West (New)
	Tema	Ashaiman	Danme East
		Ga East	Dangme West
		Ga West	Kpone katamanso (New)
		Ga Central (New)	Ningo Prampram
		Ga South	
		La Dade-Kotopon	
		LA-Nkwantanang-Madina	
		Ledzokuku-Krowor	
TOTAL	**2**	**9**	
NORTHERN	Tamale	Yendi	Bole
			Bunkprugu-Yunyoo
			Central Gonja
			Chereponi
			East Gonja

			Kpandai
			Kumbungu (New)
			Mamprugu Moaduri (New)
			Mion (New)
			Nanumba North
			Nanumba South
			North Gonja (New)
			Saboba
			Sagnarigu (New)
			Savelugu/Nanton
			Sawla-Tuna-Kalba
			Tatale Sangule (New)
			Tolon
			West Gonja
			West Mamprusi
			Zabzugu/Tatale
TOTAL	**1**	**1**	
UPPER EAST		Bawku	Bawku West
		Bolgatanga	Binduri (New)
			Bongo
			Builsa
			Builsa South
			Garu-Tempane
			Kassena Nankana West
			Kassena Nankana East
			Nabdam (New)
			Pusiga (New)
			Talensi-Nabdam
		2	

			Lawra
			Nadowli
			Nandom (New)
			Sissala East
			Sissala West
			Wa East
			Wa West
TOTAL		**1**	
VOLTA		Ho	Adaklu (New)
		Hohoe	Akatsi South
		Keta	Afadjato
		Ketu South	Agortime Ziope
		Kpando	Akatsi North
			Biakoye
			Jasikan
			Kadjebi
			Ketu North
			Krachi East
			Krachi Nchumuru (New)
			Krachi West
			Nkwanta South
			Nkwanta North
			North Tongu (New)
			South Dayi
			South Tongu
TOTAL		**5**	
WESTERN	Sekondi/Takoradi	Nzema East	Ahanta West

			Wassa Amenfi East
			Wassa Amenfi West
			Wassa Amenfi Central (Ne
TOTAL	**1**	**2**	
GRAND TOTAL	**6**	**49**	
			Total MMDAs =

Appendix 3 – Results of Knierzinger (2011) research

Table 1: Results of empirical research of Knierzinger[5].

What are the functions of a chief	Number	Percent
Settles disputes, tries to ensure law and order, peace and discipline	377	0.38
Brings development	251	0.26
Cares for the well-being of the people and provide jobs	196	0.2
Mobilizes, gathers and organizes	138	0.14
Rules	120	0.12
Serves as custodian of the land	65	0.07
Maintains traditions	41	0.04
Don't know	34	0.03
Total	982	1.24

Table 2: Results comparison Chief and MP

Comparison Chiefs – MPs	Chief	MP	Equal
Who takes more care of your well-being?	42	29	29
Who encourages more participation in public affairs?	45	45	10
Who is more important in your everyday life?	49	32	19
Who needs the consent of the people more often?	55	38	7
Who is more trustworthy?	54	22	24
Who is more powerful?	59	37	4

[5] Knierzinger interviewed locals about their perception of the power of their local Chief

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FEASIBILITY: To or not to go?

Our advice as to whether LiveBuild should enter Ghana with energy projects governed using the Social Enterprise Model (SEM), is negative. Although the need for energy is high in several of the regions we visited, a number of factors severely complicate a successful entry. Firstly, the current government has launched extensive plans to connect a vast majority of households to the central electricity grid. Our assessment, based on experience, is that this process will be slow but certain. As such, there exists major uncertainty in assessing the time by which local projects will break even. Should a subject village become connected to the grid before the full payback point, the investment will be obsolete and returns will be negative. Secondly, supplying an entire village with electricity entails a major financial investment given that most villages are considerably remote and geographically spread: actual individual households are not centralized but often make up an amorphic area (the village). Thirdly, although the willingness to pay for home-usage of electricity is considerable, it is unclear whether the ability to pay is sufficient. The reasons for doubt about the ability to pay are twofold: the net monthly income per household ranges from C50,- to hundreds of Cedi's and fluctuates heavily per season (especially for rural communities where the majority of inhabitants rely on agricultural output for income), secondly, there are doubts as to whether the quintessential requirement of local ownership and management can be met. Ensuring the latter will demand a considerable investment in training and supervision, without having guarantees of success.

Essentially, while it is in fact possible to expand to Ghana, the arguments outlined above show why such an endeavour may have low probability of success, with a key factor of success being sustainability. Hence our overall advice is to invest resource and effort into projects with more defined goals (e.g. schooling, providing clinics, providing water). Once this is achieved and local partners are established, the expertise garnered in this sector can be used as leverage should LiveBuild later decide to enter the market for energy. This is because energy and electricity are always of essential importance for the success of any project, and so collaboration and/or partnering with existing NGOs in a sector (e.g. water) could provide intellectual capital that may increase the probability of success within the energy sector.

1. CURRENT STATE OF AFFAIRS: NEED & DEMAND

In 2009, around 6 billion kWh of electricity was consumed in Ghana. Ghana produces about 2,170 MW of power. Around 60% of this production came from hydroelectric plants (mainly the Akosombo Dam of the Volta River Authority), while the other 40% came from fossil fuels (CIA, 2013). The consumption of electricity is an average of 386 kWh per capita (The World Bank, 2013).

Figure 1 below shows the Transmission Grid of Ghana (International Atomic Energy Agency, 2011). The electricity distribution network is made up of about 14,139 km of sub-transmission lines, about 77,000 km of distribution lines and supplies electricity from 27 bulk supply points. The Grid Company of Ghana Ltd is responsible for the construction and management of this transmission network, which is an open-access and non-discriminatory public facility and is connected with the networks of Ivory Coast, Togo, Benin and Burkina Faso.

Figure : Map of Ghana showing Transmission Grid

However, not every household in Ghana is connected to the electricity grid. In 1989, this percentage (called the electrification access rate) was only about 25%, with less than 5% rural coverage. Only 46 of the 110 districts then existing were connected to the grid. This instigated the National Electrification Scheme (hereinafter referred to as NES), a programme aiming to extend reliable electricity supplies to all communities over a 30-year period. The objectives of the NES are as follows:

- To connect all communities with a population above 500 in 1989 to the national grid;
- To promote the use of local and indigenous resources for a cost effective implementation of rural electrification;
- To create employment and increase productivity and wealth;
- To promote the growth of agro-based and small-scaled industries;
- To reduce the rate of rural-urban migration;
- To improve the information access and communication services nationwide;
- To improve the quality of life in rural areas.

The NES, supported by the Self-Help Electrification Programme (hereinafter referred to as SHEP), led to considerable improvements. In 1989, only 478 of the 4,221 communities with a population higher than 500 had access to electricity supply. Since its enactment in 1989, Ghana has delivered power to more than 4,000 communities and delivered electricity to more than 72% of its population by 2010, up from 25% in 1989 (United Nations, 2013).

However, there are some disparities among the different geographical regions in Ghana. Figure 2 below shows the electrification access rates per region (Ministry of Energy, 2012). Especially the Upper East, Upper West and Northern regions have a considerably low electrification access rate. There are now over 2000 lakeside and island communities not likely to be connected to the national grid in the foreseeable future.

Access To Electricity Based on Population (2010)

REGION	ACCESS RATE
GREATER ACCRA	97%
ASHANTI	82%
CENTRAL	81%
BRONG AHAFO	68%
EASTERN	70%
WESTERN	68%
VOLTA	65%
NORTHERN	50%
UPPER WEST	40%
UPPER EAST	44%
NATIONAL	72%

The government has now set two ambitious goals to be achieved by 2020: (1) Achieving an electrification access rate of 90% (which is considered to be universal) and; (2) An amount of 10% of this national energy generation coming from renewable resources (International Energy Agency, 2011 and United Nations, 2013).

Hence there is a demand for electricity in vast proportions of the country: mainly remote villages remain disconnected from electricity and the benefits and prosperity that it is accompanied with. However a demand for electricity is obvious; the need that may be fulfilled is less clear. The following paragraphs and chapters will outline how to cater demand; a demand that once filled will cater a great cause, namely the actual need for electricity. Based on our fieldwork in Ghana we have found that this need is based on two desires: social interaction and education after dark. However besides these issues, we have found that the lack of energy creates greater hurdles for other progress in Ghana. Energy is of essential necessity for any school, clinic or water-project to be of success.

2. REQUIREMENTS FOR FINANCIAL SUSTAINABILITY

Electricity Tariffs and Prices of other Representative Commodities

The following data provides an overview of regular electricity tariffs in the Ghanaian energy sector as well as for a variety of other commodities. It is provided with the intention of comparing household spending w.r.t to electricity and other commodities to estimates of household income.

Electricity Tariffs

Within Ghana there is a group of energy consumers known as the lifeline group. Consumers within this bracket consume less than 50-kilowatt hour per month, and benefit from government subsidies. Energy is commonly purchased through a pre-paid meter system. As shown in the table below the average tariff per KWH is 22.77 pesewa's (about 8 eurocents). Plans exist to increase this amount, however civilian protests mean that this is unlikely to happen in the near future. As such, it can be seen that in absolute terms, electricity access is not very expensive in Ghana: Given a monthly income of C100,- and a usage of 20 KWH per month, this means that just over 4% of the monthly budget is spent on electricity.

During meetings with entrepreneurs in the energy sector, we raised the question of whether grid extension could provide a business opportunity for an NGO, i.e. extending the grid and selling grid connections to local villages. The costs for this, however, would come up to C800,- (200 euro) per grid connection, and this is without even considering the numerous legal issues that would be encountered.

UTILITY	PRESENT RATE (Dec. 2011)	PROPOSAL FOR 2013	PERCENTAGE INCREASE
	(Ghp/kWh)	(Ghp/kWh)	(%)
Volta River Authority (VRA)	8.45	19.29	128%
Bulk Generation Charge (VRA + All IPPs)	10.53	26.48	151.4%
Transmission Service Charge	2.48	3.40	37%
Distribution Service Charge (ECG)	9.76	30.67	214%
End User Tariff (EUT)	22.77	60.55	166%

Prices of Alternative Forms of Energy

During our field research, two energy companies in particular provided us with useful information regarding prices and alternative forms of energy. These are summarized in the tables in annex 1 to this report.

Willingness to Pay and Payment Mechanisms

People in visited villages stressed that they did not expect electricity to be free and showed a strong willingness to pay for any form of electricity. Moreover, villagers seemed to think that it was only fair to financially contribute to an energy system in order to ensure that repairs could be performed. They too shared the view that sustainability is of central importance

According to interviews (Eric Ofosu, University of Energy and Natural Resources), 3-5% of the monthly income earned by villagers would constitute a reasonable price for energy should an NGO such as Livebuild decide to employ the SEM. In a medium city like Sunyani, monthly income could be about C300,- per month for a relatively large sized household. However, in the villages inhabitants are heavily dependent on farming activities. Consequently, the estimated income of villagers is a lot lower and comes down to approximately C50,- to C100,- per month. This would imply a fair charge for an energy system of about C1,50 to C5,- per month in smaller villages. Therefore, the financial feasibility of the project depends on the type of income-generating activities that are present in the community and thus the disposable income of the average household (District Assembly). See social structures in chapter 5.

Contribution versus ownership

Besides the income considerations related to payment, an important condition for people to pay for an energy system is that they should understand and agree with the benefits of energy. Educating people about the benefits of electricity is crucial, but it might be difficult as habits, tradition ns and attitudes are difficult to alter (Thomas, New Energy). Education can best be obtained through training, preferably in the local language, and through proof by demonstrations. As long as people are convinced that the energy system is intrinsically good for them, they will be passionate to keep the system going. As such, contributing is not the same as owning.

Payment mechanisms

Different payment schemes were researched. The most effective payment scheme for communal energy provision is a pay-as-you-go (PAYG) system, which can be found at numerous village water pumps. However, depending on the form through which electricity is supplied to the villages, it might be difficult to charge for electricity at the moment of exploitation. This is because, energy cannot be collected in buckets, and if for instance streetlights were to be the appliance of choice, it would be near impossible to create a sense of individual ownership within the community leading to a situation in which individual households would have the incentive to free ride. Therefore the key consideration in implementing a payment mechanism is the nature of ownership within the village:

- If for instance, the entire village can make use of the electricity without payment (e.g. the streetlight case) this would cause free riding and so implementing a working payment scheme would prove difficult.
- Should it be the case there that there is a central, and lockable, community centre, then PAYG payment would be most feasible.
- Finally, if household installation is the goal, then monthly payments might be more feasible.

However, there exist mixed views on the viability of a monthly payment scheme. This is because such a scheme requires that someone be in charge of collection and safekeeping. This requires a considerable amount of discipline and long-term thinking, both of which are not strong features of many village communities. In addition, the highly collectivist and family-centred culture may create conflicts of interest for those in charge of collected funds. For instance, should a family member of the person in charge fall ill, family culture may require that electricity funds be diverted to the more pressing need of medical care (Hand in Hand). Nevertheless, other sources indicate that monthly payment schemes are not that unusual in Ghana. For example, the existing National Electrification Programme of the government covers the initial installation costs of the electricity socket, but thereafter people pay monthly electricity bills that depend upon their electricity usage (UENR, District Assembly).

3. REQUIREMENTS FOR OPERATIONAL SUSTAINABILITY

Technical Possibilities

Given the high level of sunlight intensity in Ghana and the fact that providing energy to villages in a relatively inexpensive manner requires small-scale operations, solar energy is the option that will be discussed below. While wind and hydro do present energy opportunities, wind can only be implemented in the Southeastern tip of the country and hydropower is widely exploited by the government. Furthermore, hydro is limited to locations with access to dams and rivers -a requirement that is often not met in many of villages located in the energy-poor north.

Currently Ghana plays home to several different successful solar companies with different kinds of solar systems. On the basis of interviews with these organisations, we have identified three options regarding implementation of a solar system in rural areas not connected to the national energy grid:

(1) Installation of a large solar plant that produces enough KWH for an entire village. EnergieBau is a company active in installing such systems. The systems that they provide are custom-made to suit the scale and usage of the systems. As such, should partnership with such a firm be pursued, a solar system could be designed to match the village of choice. However, such a service does not come cheap. Prior deals between EnergieBau and other NGOs have resulted in bills of C7.000 - C200.000 (2.438-69.640 Euros). Besides the very large investment costs associated with this option, another major challenge presented in the installation of such a system would be its placement. Villages in Ghana that are currently not connected to the grid are generally very widely dispersed. This means that it would be quite difficult to find the optimal location to ensure that a large amount

of surrounding households gain access to the energy production of the plant. A solution for this would be to lay cables running to every single hut. However, this would prove quite costly and would require a monthly payment scheme.

(2) In Ghana's northern region it is not uncommon to place a single solar panel on the rooftop of a hut that provides enough solar power for a couple of lights, a mobile phone charger and sometimes even television or laptop. NorthliteSolar has implemented this system very successfully over large areas in the Northern region near Bolgatanga. At relatively cheap rates, NorthliteSolar provides different kinds of systems to those who are interested, and designs a specially designed payment system in collaboration with surrounding rural banks. This means that even people who cannot afford to make such an investment immediately get the opportunity to use small solar systems costing between C165, - to C1.950,- (57,45- 680 Euros).

(3) A third option for providing solar power would be to provide small devices with a solar panel built in or attached. Examples of this could be small lamps with a small solar panel attached, or battery chargers. These products can be provided at a relatively low price and would be greatly valued for reading, safety and/or general household purposes. These simple solar devices cost around C30,- to C260,- and can usually be purchased by without requiring them to take out a loan. In addition, they are very simple to install and use and thus it is fairly easy to reach a lot of people and provide them with solar power devices.

Local Knowledge

As mentioned above, there a number of firms active in Ghana' solar energy sector. Many of these companies sell small installations comprising of a couple of lights so as to enable local people to extend their day. However in some cases bigger installations are built, for example for refrigerators at health clinics to cool vaccinations.

Multiple possible local partners were visited:

- Burro: Burro is a NGO which sells small installations for household lighting and which provide mobile charging at a very low rate. It is active in the southern part of Ghana, based in Koforidua, however plans exist to extend operations to the north. It is run by an American, Whit Alexander, who has lived in Ghana for multiple years now and who strives to bring Western knowledge to Ghana. Whit is open to any form cooperation with NGOs or other interested organisations who know the local villages.
- Energiebau Sunergy: A German company locally managed by a Dutch person. Energiebau is based in the southern part of Ghana in Peduase (between Accra and Koforidua). This company is specialized in custom, more advanced and bigger solar panel installation which are mostly delivered to health clinics, hospitals and other companies.
- Solar4Ghana: An NGO based in Kumasi, this Ghanaian company is like Burro in that it sells different solar installations for household lighting and mobile charging.
- Northlite Solar: Company in the northern part of Ghana based in Bolgatanga and run by a Ghanaian. This company sells small pre-assembled installations for household lighting and mobile charging but can do custom installations as well. The company has a good network with villages and other NGOs in the region.
- Besides the organisations mentioned above, there are a multitude of other NGOs and companies active in Ghana. A high concentration of these are located in the energy-poor north where a number of villages continue to remain unconnected to the national grid.

The companies above are trying to enhance local knowledge by teaching the villagers. This will be discussed and illustrated in the next section.

Maintenance

This is a very important aspect in the implementation of any energy project. Setting up a project is one thing but to maintain it can be a lot harder. This feat is illustrated by the fact that throughout Ghana, solar street lamps lie dormant along village roads. Foreign NGOs and the Ghanaian government installed many of these solar lamps but because of the lack of maintenance and local training, they now serve to provide as a reminder of abandoned dreams. The main issues presented in this case is that local communities have no knowledge of how to repair these installations and the companies which installed them have little interest in maintenance -despite calls from villagers.

This example highlights the importance of having local partners who can train villagers and respond to calls for repairs if problems exceed those which villagers can repair themselves.

Some companies do try in this respect. They teach local villagers, for example, that is it very important to keep solar panels clean to ensure that they can optimally absorb sun beams. How the different companies try to achieve this training differs. Burro and Energiebau Sunergy do so by providing a day-long session which instructs the users on how to deal with the solar installation. In addition to this, Burro has plans to make a video tutorial which can be used in remote areas. Northlite Solar has another approach. They build close contact with one villager whom they train. This villager serves as the contact person for the company in their respective village. In this way, Northlite Solar establishes the trust of the local community and gains access to someone with community-specific knowledge who can remain on the ground to react quickly to maintenance and operation issues.

4. REQUIREMENTS FOR SOCIAL SUSTAINABILITY

The presence of stable social structures

Within Ghanaian villages, great importance is given to the chieftaincy and hierarchy. Upon speaking with regional/village chiefs, we were often asked who our leader was. Given the important role of these figures, communal projects are often organised and led by the village chief. Village chiefs lead village elders who aid in dealing with all issues and projects in the society. The chief and the elders form the general board of the village and serve to settle social disputes. In addition to this, they also set up sub-committees for planning and other projects -such as floor building, village security or setting up grounds for new construction-, many of which are carried out in a communal form. Daily life however is more focused on the family with food and water collection being done by each individual family.

Despite these overall trends, social structures differ throughout Ghana. As per our observations, there exist strong differences between the Northern part around Tamale, and the Central/South near Sunyani (Brong-Ahafo). In the three villages visited in the Brong-Ahafo Region, municipal Sunyani, the elders and chiefs maintained that villagers were willing and able to be taught the necessary engineering skills and that they would be able and willing to contribute to such developments financially and via communal labour (elders, Wawasua). Nevertheless, despite their familiarity with communal labour, the social structures seemed not to be as strongly embedded in the villages as in the North.

In the northern Tamale region we spoke to a delegation from the village of Zozugu, which is located on the very outskirts of Tamale. In comparison with villages visited in the South, Zozugu has a strong sense of community spirit and an organized administrative framework. The community spirit can be observed when looking at the construction of the new school. Every day since the beginning of the construction, the village elders have randomly selected 5 men to assist in the construction. This has ensured that there is community involvement in the project. With respect to the administrative framework, it appears that different projects are led by different committees-the members of which are selected by the Chief and elders. These committees deal with a number of issues, including village security and water, while being a member of such a committee is considered a privilege. Within these

committees, there exists a chairman, secretary and advisor, all of which are responsible for the functioning of their specific project. In addition, it appears that there is a notion of payment for services within the community. For instance, one of the landlords within the village has a tractor, which households within the village may 'hire' against a fee.

Acceptance and Support of External Actors within Local Communities

In general we can conclude from own experience and from interviews conducted with institutions and locals, that local people are open to assistance from foreign actors. Examples of foreign-initiated projects which underline this acceptance, are the two boreholes which an American NGO placed in Domsesere, Sunyani (Brong-Ahafo) and the solar lamp posts installed by a Greek division of an unknown cocoa-company placed in Wawasua, Sunyani (Brong-Ahafo). For the latter project, the local community supported the initiative by digging the holes for the lampposts (elders, Wawasua). There are numerous other examples of these kinds of projects in Ghana, all of which highlight the openness of both the government and the people to foreign assistance. Nevertheless, this is not the whole story. Upon speaking with village chiefs and elders, it became clear that a multitude of NGOs had visited villages and promised services that never materialised. This has led to a spirit of caution and apprehension in older inhabitants of the villages. Frank Adabre of NorthliteSolar aptly advises that , '[NGOs must be] consistent with what [they] say, otherwise [villagers] do not trust [them]'. Often villager will check with other NGOs and/or companies to confirm the reliability of new actors.

Also important when entering a community is that one discusses their reasons for being there with the whole village. Upon entering a village, it is common that all inhabitants will gather around to hear your story (this includes the chief, landowners, educated people, degree holders, direct beneficiaries and households). They may not necessarily participate, but will listen. Many of these actors will not divulge who they are, or what position they have. Only after you leave and return once again will they trust you and open up to say what they really feel. As such, it is important that an NGO works at blending into local communities (Frank Adabre, Northlite Solar Ltd.).

In Zozugu, Tamale municipality, a very interesting aspect was made clear while talking to the villagers. Unlike many urban dwellers, they are not so prone to 'African Pride,' i.e. accepting no help from outside and doing it all themselves. When questioned on the

subject, they stated that only the towns-people and officials would benefit from this newfound independence from EU-, American- and Asian aid. They are honest and boldly state that they still need foreign assistance, for without it, they fear that they may become further marginalised in their societies.

5. INSTITUTIONAL FACTORS

The importance of institutional players within the Ghanaian Energy Sector

At present, government agencies in Ghana serve as the major actors within the energy sector. However, despite plans such as the Rural Electrification Project, room still remains for non-governmental organisations. This is because national grid extension is hindered by the fact that the majority of rural and suburban communities within Ghana are located far from existing electricity distribution networks and have low load densities (kW/km^2) (Abavana, 2000). These constraints make financing of grid extension prohibitively expensive and account for why many secluded villages have no access to electricity.

Besides the financial constraints inherent within the 'electricity problem,' politics and corruption play a significant role in determining which villages gain access to electricity and which not. Upon speaking with Hon. Nana Asante Frempong (Solar4Ghana) it became clear that electricity –and more specifically energy poles and cables- are used as a bargaining chip during political campaigns. Such intricacies go towards explaining why a village located 500 m from a main road and surrounded by electrified houses and lodges, will find itself in complete darkness after dusk.

As such, while fiscal constraints may provide room for opportunity, the same logistical challenges faced by government will also be faced by any prospective NGO. Combining this with corruptive activities, this could create both bureaucratic and logistical hindrances.

Institutional considerations if/when entering Ghana

In light of the strong government presence within the electricity sector, collaboration with local municipalities, district assemblies (DA) and universities is imperative should any project be pursued. In order to clarify their objectives, the NGO should make contact with the DA of interest to discuss their objectives and pinpoint exact locations for operations. For this purpose, the DA will normally have a list of villages with and without electricity that can be used to decide where any project should be located. From our experience, DAs are somewhat disorganized but once one gains access to

people of importance, there is a sense of cooperation and openness. When visiting the Tamale DA, we were given access to the Metropolitan Coordinating Director who showed a great amount of interest in the project (Kadiri, Office of the Tamale Metropolitan Assembly). In addition to this, he was keen to hear what our experiences were within the country and where we saw room for improvement given our European background. Universities too proved to present useful candidates for collaboration. At the University of Natural Resources and Energy in Sunyani, we were granted access to the Head of the Energy and Environmental Engineering Department, Dr. Eric Ofosu. He sat with us for over an hour and shared information aimed at assessing the viability of the SEM within Ghanaian communities. Although he showed concern that fee collection could prove to be difficult within this framework depending on the form of electricity provision, he too showed great enthusiasm for the project and was keen to encourage further collaboration in the future.

Once NGO objectives have been clarified and drafted into a proposal, two steps must be performed: (1) Get a certificate to Commence Business and Incorporation at the Registrar General's Department under the Ministry of Justice and Attorney General, and; (2) Register as an NGO at the Department of Social Welfare (Further details on this can be found in attached document: Regulatory system for NGOs in Ghana).

6. FURTHER RECOMMENDATIONS

Although a number of challenging factors have been highlighted in the preceding sections, we feel that LiveBuild should not view energy in Ghana as a lost cause. While government is currently involved in the extension of the national grid, bureaucracy and political strategy mean that full rural electrification in the near future is highly unlikely. The feasibility of NGO entry depends crucially upon scale, and so on the basis of our analysis, we wish to outline a number of possible project ideas which may be investigated further:

1) Joining forces with a pre-existing NGO who is active within the field of energy. Given the institutional and cultural hindrances mentioned above, merging with an existing co-operation would allow LiveBuild to have an impact using the existing knowledge of a local partner. Examples of local partners include Burro Brand, Energybau Sunergy and Northlite Solar Ltd.
2) Employ small-scale operations such as (1) selling battery-operated torches, (2) selling kerosene and/or solar powered lamps; and/or, (3) providing (solar) battery charging facilities.
3) Build a community centre that provides light and refrigeration by way of solar energy. By creating a centralized and independent energy location, LiveBuild could charge a small sum to those using the light or refrigeration. Such a framework would allow basic energy needs (light for studying, vaccine and food refrigeration and battery charging) to be met while ensuring that local people contribute towards the system. Furthermore, such a project would have room for expansion should primary stages be successful[1].

1 Expansion could include the opening up of a shop or clinic, while the overall structure may create increased possibilities for local entrepreneurship, e.g. rope-making, ground nut grinding and shea butter production.

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ANNEX 1: Technical Systems

Burro Office: Koforidua Owner: Whit Alexander	
Product	**Price**
Lamp Normal - 400 mah - Battery lasts 5 years - Very durable, can be attached to wall or ceiling, easy to carry - 2 year guarantee - Intensity of light adjustable - 30 hours battery life at dimmed light, 4 hours at very strong light	C30,- (€11,11)
Lamp Pro - Phone charger through USB - Bigger than normal version - Shows battery percentage - More efficient solar panel	C90,- (€33,33)
Solar Power Kit - 2 lights à 2 intensity levels - Battery charge platform à Space to charge 2 AA batteries - Phone charger (USB) - Solar panel	C110,- (€40,74)
Solar Power System - 7 AH , 12v output - Very bright light - 2 USB hubs (for phone charging) - Solar panel - Ability to charge a laptop	C260,- (€96,30)

Nortlite Solar ltd. Office: Bolgatanga Owner: Frank Adabre	
Product	**Price**
Plug and Play - 2 lights - usb for phone	C300,- (grant of C185,-) so C165,- €61,11
50 Watt - 2 lights & plugin for laptop (invertor) OR – 4 lights	C1200,- €444,44

100 Watt - 5 lights - Invertor - 5 phone plugins	C1950,- €722,22

ANNEX 2: Meeting notes

Village Reports

SUNYANI, BRONG-AHAFO

	Domsesere	Wawasua	Kurosua
Population	1000	1300	600
Water	2 boreholes	1 well / 2 boreholes	1 borehole
Energy	None	None	None
Primary School	1	1	1
Secondary School	None	None	None
Health clinic	None	None	None
Church	1 catholic	1 catholic	None

*

On Monday 29th July 2013 we visited three villages in the Brong-Ahafo Region, municipal Sunyani, which is also the regional capital. The municipality falls within the wet Semi-Equatorial Climatic Zone of Ghana. The mean monthly temperatures vary between 23°C and 33°C with the lowest around August and the highest being observed around March and April. The relative humidities are high averaging between 75 and 80 percent during the rainy seasons and 70 and 80 percent during the dry seasons of the year which is ideal for luxurious vegetative growth.

The average rainfall for Sunyani between 2000 and 2009 is 88.987cm. Sunyani experiences double maxima rainfall pattern. The main rainy season is between March and September with the minor between October to December. This offers two farming seasons in a year which supports higher agricultural production in the municipality. However, the rainfall pattern of the municipality is decreasing over the years as a result of deforestation and depletion of water bodies resulting from human activities (ghanadistricts.com).

INTERVIEWEE: Nicholas, aged mid 50's, resident of Wawasua

Nicholas is a cocoa-farmer living in Wawasua during the week, but spends his weekend in Sunyani, mostly to charge his mobile phone, which he deems most

important for his visit to this town. There is no electricity in his village thus he needs to charge his phone elsewhere, this is important for him to 1) call his family and 2) business. He refers to Sunyani as his 'home' and to Wawasua as his 'village'.

The need for electricity is social, because life ends when the sun sets. He wants to 'play some cards, or for kids to do homework after dark'. Some people in the village have a generator, but they only use it for short periods. Sometimes to watch television, which Nicholas deems important: 'information for people, so they know what's going on in the world…there are people who never leave their villages, ever! Because they have no money.'

Villages: interviews and meetings with elders and chiefs

We met the region-chief who was put in place by 'Nana' (King), who is the owner of the hotel-bar/restaurant we stayed at. His position is very powerful in this region since he is the one who put the biggest chief on his 'stool'. We experienced this when we were in town with him: people go out of their way when he approaches and we were the first to be serviced in a local pharmacy. The region-chief is the boss of the chiefs in the villages, who in turn are the boss of the 'elders', a council of old(er) villagers, dealing with all issues and projects in the society.

The chief and the elders form the general board of the villages who settle disputes, social and other. But they also put in place other committees for planning and other projects. These projects are carried out by the community; in a co-operative form, however daily life is more focused on the family. Per family work is carrier out on the land; their primary source of income is farming (cocoa). Some have other jobs, like producing alcoholic drinks. Dinner and sleeping is done per family, who also live together.

The villages are not concentrated but are more or less amorphous clusters of small settlements (per family). The term village is an administrative term, not a geographical.

Domsesere Village, Sunyani (Brong-Ahafo)

This village has a primary school and a church but lacks a clinic, there are two boreholes for water, but no wells. One of the boreholes produces to the eye dirty water, however there is a villagers distilling alcohol in an open set-up 20 meters from this borehole. Both pumps were put in place by an American NGO. The church looks clean and sturdy, the other buildings do not.

Here the locals think that electricity and light will bring social stuff and the opportunity to get kids to do homework after dark. Also a clinic with refrigeration is much needed, for medication and more direct help when needed. Bringing 'light' is seen as a much-needed thing, just to have the opportunity to do things after dark, i.e. play cards. The government has pledged to connect them to the grid, however there has been no action thusfar.

Wawasua Village, Sunyani (Brong-Ahafo)

This village is the biggest of the ones we visited, with a population of approximately 1300, it is also more concentrated geographically. There are only two waterpoints and no electricity. A few years back several lampposts, powered by solar energy were installed, the community dug the holes and a Greek division of an unknown cocoa-company places the posts. After just a few weeks the lamps stopped working, now none are functioning but two. The locals had no say in this project, making it seem like a CSR-policy rather than actual development. Calls for repair have remained unanswered.

The need for light is the same, followed by the need for refrigeration of foods and medication. Wawasua also has a school and brand-new great looking teacher-homes, however due to lack of energy there is nobody willing to stay and teach. The elders and chief said there are people willing and able to be taught the necessary engineering skills, also they said to be able to and willing to contribute to such developments financially and via communal set-ups. However it remains unclear how much money is made, and thus how much is to spare.

Kurosua Village, Sunyani (Brong-Ahafo)

This village is the most remote, only to be reached by a very bad road, which is according to the Chief the first thing on their list followed by electricity for again lighting, a clinic with refrigeration for medication and food. The story here seems the same with the difference that this village seems yet to be reached by NGO's and government.

TAMALE, NORTHERN REGION

Zozugu Village, Tamale (Northern Region)

	Zozugu
Population	1400
Water	Water pump (seldom works)
Energy	None
Primary School	1 + 1 in construction
Secondary School	None
Health clinic	None
Mosque	1
Shop	1

Zozugu is located on the very outskirts of Tamale, no more than 500 m from the main Kumasi road. It is a fairly organized village characterized by a wide array of entrepreneurial ventures. Very different from those villages observed in the south, Zozugu-and most villages present within the Northern region- is characterized by multiple families living in small compounds. These closely situated compounds comprise of 4/5 households and are bounded by low mud walls. Within these confines, there exists a bathroom and toilet for males and females, a central cooking point, the households, and a pen for animals. Within these small communities, so-called 'Landlords' and 'Landladies' serve as moral guides and are tasked with intervening in cases of dispute. These landlords and landladies interact with the chief and one another, discussing and dealing with simple issues/disputes within the village.

In comparison with villages visited in the South, Zozugu has a strong sense of community spirit and an organized administrative framework. The community spirit can be observed when looking at the construction of the new school. Every day since the beginning of the construction, the village elders have randomly selected 5 men to assist in the construction. This has ensured that there is community involvement in the project. With respect to the administrative framework, it appears that different projects are led by different committees-the members of which are selected by the Chief and elders. These committees deal with a number of issues, including village security and

water, while being a member of such a committee is considered a privilege. Within these committees, there exists a chairman, secretary and advisor, all of which are responsible for the functioning of the specific project. In addition, it appears that there is a notion of payment for services within the community. For instance, one of the landlords within the village has a tractor, which households within the village may 'hire' against a fee.

Zozugu also bears home to a strong entrepreneurial spirit. In one compound, there may be a cotton maker, in the other a woman producing Shea butter. Although many of the inhabitants are subsistence farmers, others rely on rope making and animal-rearing to ensure a living. Nevertheless, many families are only able to feed themselves and do not gain much money from selling. The latter is a result of bad roads and low city prices.

Despite being a mere 500 m from the main road, Zozugu does not have any electricity. Within the compounds, each family normally has one kerosene lamp and a battery-operated torch. The men of the village must travel to the next village to charge their cellphones for a fee of 50 pesewas. When discussing with the landlords of the village, their main concern was gaining electricity so as to allow the village children to study at night. Nevertheless, a key concern expressed by the Chief's son is the lack of knowledge and capacity within the village. The overall level of education is quite low and there are reportedly less than 10 mechanics within the village.

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INTRODUCTION: WATER

“Water is life”

In terms of improving health and wellbeing, improving access to and quality of safe drinking water is crucial. As Ghanaians we met put it: “water is life”.

The lack of access to safe drinking water can lead to a high number of diseases and closes opportunities for education and capacity building. In many poor communities, fetching water from distant sources and queuing for water are physically demanding and time-consuming responsibilities borne primarily by women and girls. Women have less time to engage in other productive activities, while for girls’ school attendance is often considered a lesser priority.

For that reason, water is a crosscutting element of the Growth and Poverty Reduction Strategy (GPRS II) of the Republic of Ghana and is linked to all Eight of the Millennium Development Goals (MDGs). However, statistics show that safe drinking water availability in Ghana is currently 73%[1], what gives Ghana a very low rank (no 104 out of 147) in terms of drinking water availability per country (Nation Master, 2013). Referring to the statistics retrieved in Ghana from the Community Water and Sanitation Agency (CWSA), the national rural water coverage ratio is estimated even lower, at 63,41%[2] in 2012.

Setting up projects improving the access to and quality of safe drinking water offers opportunities to LiveBuild to act as a catalyst for further economic development of Ghana, improving health, wellbeing and socio-economic status.

Ghana has major opportunities to LiveBuild for the following reasons; (1) Ghana receives a considerable part of the Dutch development budget due to its status as a partner country for bilateral development, (2) Ghana has a strong local NGO sector, (3) Ghana witnesses strong economic development while at the same time a large share of the Ghanaian population still struggles to meet their basic needs. Despite these opportunities to LiveBuild for setting up safe drinking water projects in Ghana, the market is yet unknown. In this report, we will answer the question whether and where in

[1] Coverage estimates are derived from information collected from two main sources: assessment questionnaires and household surveys.
[2] A definition of the water coverage ratio is given in sub question 1 of the report.

Ghana there are opportunities for LiveBuild to increase access to and quality of safe drinking water based on community involvement and sustainability.

This report consists out of three parts and is organised as follows.

The first part will contain our advice, the feasibility of safe drinking water projects based on the social enterprise model. Feasibility will mean that the following three conditions hold:

1. There is need for additional safe drinking water projects in Ghana in the following 2 years
2. There is a proper institutional framework in the field of water in Ghana
3. Projects can be run sustainably

LiveBuild's social enterprise model is defined as 'community owned, business operated'. Coherent to LiveBuild's business model is sustainability. By combining a community-based approach with a social enterprise, a real sustainable and local solution could be realised. Sustainability is defined as: "in the future the project can be run mainly by the community itself".

Sustainability consists out of three different elements: **financial, operational and social sustainability**. In *financial* sustainable projects, a third party initially pays the investment, while the community repays (part of) the investment within of a period of several years. Managed financial sustainably, in the long run, project revenues will be sufficient for maintenance and repairs, depreciation and repayment. For a project to be run *operational* sustainably, technical security for operation and maintenance of the water system should be present. Moreover, there should be sufficient local knowledge and willingness to participate in and commitment to the project to make the local community owners of the system and run and maintain the project in the future. For a project to be managed *social* sustainably, stable social structures should be present within the community to assure that management of the project will be uphold till the long-term future. External partners should also be accepted by the community and get unconditional support by the community to assure that in the future the project can be run mainly by the community itself.

The second part of this report will explain the arguments, based on a geographical description of the needs for additional safe drinking water projects in Ghana, institutional requirements, requirements for financial sustainability, requirements for

operational sustainability and requirements for social sustainability. Finally, in the third part, we will provide some recommendations for LiveBuild to explore the opportunities for LiveBuild “how to expand to Ghana”.

It is important to note that our advice and recommendations are mainly based on our acquired knowledge and experience during our 3,5 week of field-research in Ghana. The arguments are based on our desk-research in the Netherlands in combination with acquired statistics in Ghana, a high number of interviews with the main institutions and actors concerned with drinking water management in Ghana and a limited number of visits to rural communities in Ghana. Due to the restricted time we had to invest in local communities and the fact that assessing social aspects of a project is a long-term phenomenon, we will introduce our findings about communities as case studies.

PART 1 - ADVICE

Are there opportunities in Ghana for LiveBuild (and where) to increase access to and quality of safe drinking water based on community involvement and sustainability?

The shortest possible answer here is 'yes': there are indeed opportunities to LiveBuild to set up sustainable drinking water projects in Ghana. We experienced Ghana as a country relatively easy to go to for NGOs, which is reflected by the fact that a large number of NGOs is active in Ghana in the field of drinking water. Below we will shortly go into the main conclusions on the three conditions of feasibility as defined earlier.

'There is need for additional safe drinking water projects in Ghana in the following 2 years'

Following the data retrieved in Ghana, we can conclude that there is no area where the need for safe drinking water is completely fulfilled. Moreover, the Millennium Development Goals have not been reached on this point either. Comparing the 2012 statistics with 2009 statistics and following our research in the field, it also seems unreasonable that within two years the need will be completely fulfilled in all these areas. We thus conclude that this condition is fulfilled. Chapter 1 of part 2 will provide a detailed description of our findings on this point.

'There is a proper institutional framework present in the drinking water sector of Ghana'

We conclude that a sufficient institutional framework is in place for rural Ghana in the field of drinking water. Ghana has a clear water policy and institutions that are carrying out this policy are well structured and to our knowledge reasonably corruption free. There is plenty of data and knowledge available in these organisations. Another important part of the institutional requirements is sufficient ability to local management of a project. We have seen that in Ghana it is very common to have committees in villages managing water projects. The regional and national organisations carrying out the Ghanaian water policy are assisting and coordinating those committees. The water committees may not always work optimal yet, but in general the right framework is in place.

'Projects can be run sustainably'

To our belief, it is certainly possible to run projects in a sustainable way. In *financial* terms, we believe people are able and willing to pay for water. Education will be important in this aspect, as you have to make sure people really understand the benefits of safe drinking water. It is however, common to pay for safe drinking water and this is also policy of the coordinating governmental organisations. The earnings on the tariffs for water should be sufficient to maintain the water installation. Requiring the project to also retrieve the capital cost is not common in Ghana. What is usual is that the community pays a 5-10% part of the initial investment, although in poorer communities (in the Northern regions) this may be difficult.

In terms of *operational* sustainability we do not expect problems when setting up simple systems. There is sufficient knowledge present about technical possibilities, water resources and good practices on training the local community to maintain the systems.

We experienced that locals are very well aware of their needs and willing to participate in and commit to projects to improve their livelihoods. However, we have to be careful on the truthfulness of their expressed willingness to participate in and commitment to the project in the long-run, as people may often not be telling the whole truth, always answer with a 'yes' if that means they get external help or underestimate the implications of setting up a project. There are different ways of asserting their willingness to participate and commitment to the project though. Considering *social* sustainability, on the village level, we observed strong stable hierarchical structures that are required for the project to be managed sustainably. External parties as western NGOs are accepted and even encouraged to come to Ghana by local governmental institutions, other NGOs and the local community. Moreover, these organisations are eager to offer assistance in setting up water projects in local communities.

We conclude that we are very positive about the opportunities for LiveBuild to set up sustainable drinking water projects in Ghana. There are certainly some difficulties, but none that cannot be overcome. Part 2 will outline and comment on these issues. Part 3 will provide some final recommendations for LiveBuild on "how to expand to Ghana".

PART 2

In this part we will explain and motivate our advice of part 1. The chapters below will go into more detail on the different aspects of feasibility and give more detailed descriptions of our experiences.

1. AREAS IN WHICH THE NEED FOR ACCESS TO AND QUALITY OF SAFE DRINKING WATER IN THE FOLLOWING 2 YEARS IS NOT COMPLETELY FULFILLED AND HAVE OPPORTUNITIES FOR LIVEBUILD TO FULFILL THESE NEEDS

In this part we will discuss the need for access to safe drinking water for different administrative regions in Ghana. The first distinction that needs to be made is the one between rural and urban areas. In terms of access to water and institutional arrangements there are quite some differences between rural and urban areas. According to the institutional framework present, urban areas are the responsibility of Ghana Water Company Ltd. and rural areas are the responsibility of the Community Water and Sanitation Agency (CWSA). As the distinction between those is not absolute, there are some areas that may just fall in between of the responsibilities of the two organisations. These areas are in between a rural and urban area, often sort of rural areas very close to cities and generally named peri-urban areas.

We will start with discussing the differences between rural and (peri-)urban areas. In terms of opportunities for LiveBuild, we think that the rural (and possibly smaller peri-urban) areas are more promising. Therefore, in the next part we will focus on the six regions in which the water coverage is lowest according to the Community Water and Sanitation Agency (CWSA). For these regions we will go into more detail to identify opportunities for LiveBuild to meet the lack of safe drinking water depending on regional circumstances and the potential impact of projects.

1.1 Distinction between urban, peri-urban and rural areas

The distinction between (peri-)urban and rural areas is quite essential in terms of supplying safe drinking water. There are huge differences in the way of approach and kind of projects that are possible to set up.

Urban areas

Water provision in the urban areas is the responsibility of Ghana Water Company Limited. Urban areas are defined as towns and cities with more than 5.000 people. Legally Ghana Water Company is a private company, however it is heavily influenced and controlled by politics. Ghana Water Company supplies water to 12-15 million people in all regions of Ghana. Water is provided mainly to households, but there are also some public standpipes. We spoke with Michael Botse-Baidoo (Project Planning & Development Department, Ghana Water Company Limited) and according to him their water complies with the highest quality standards and is safe to drink. However, a lot of other people we spoke with had different opinions. According to these people, the water entering the pipe system is clean, however due to bad maintenance the pipe system does not function well. The latter results in bad quality running water. Ghana Water Company itself admits that there is not enough money to invest, as the fees they collect for the water are not high enough to make investments. Furthermore, in a lot of places water does not run continuously due to a shortage of supply. Some people stated that there is a lot of corruption in the management of the company as well, which results in bad service and bad maintenance. The company says to be open for cooperation with NGOs. We shortly spoke with a Belgian NGO called Water4Ghana that was also trying to work together with Ghana Water Company. They experienced a lot of problems especially in getting a fair price for the services. We drew the conclusion that working together with Ghana Water Company is not a feasible strategy for LiveBuild. As we look at the earlier defined conditions for feasibility we see that there certainly is a need (even in the capital Accra, there are a lot of areas struggling with getting safe drinking water supply), however we do not think the institutional framework here is proper enough and it will be hard to generate sustainable projects. The supply is dependent on Ghana Water Company Limited, which cannot be trusted upon and is too corrupt.

Rural areas

The responsibilities in rural areas are divided quite differently. There is a central organisation called Community Water and Sanitation Agency (CWSA) that is responsible for coordinating the water supply in rural areas. Unlike Ghana Water Company Limited, this is not a private company but merely a regulatory and assisting organisation. The CWSA can provide you with data about the water coverage per

region and on the district level. Furthermore, the CWSA has a set of guidelines to follow for setting up a project and also assists and gives advice based on your plans. After the CWSA, the local District Assembly of the district where you want to set up a project is your first entry point. The District Assemblies have more specific data on where the need in their district is. We will go more in-depth on the CWSA regulations in chapter 2.1, however their basic idea is a holistic approach resulting in sustainable community managed projects. Both the Dutch Embassy in Ghana (Elsie Appau-Klu, Policy Advisor – Water and Governance, Dutch Embassy in Ghana) and CONIWAS[3] (Julius Appiah, CONIWAS) explain that rural areas provide opportunities for LiveBuild for the reason that it is easier to work with the community (keeping overview), cheaper and more convenient.

Peri-urban areas

Elsie Appau-Klu (Policy Advisor – Water and Governance, Dutch Embassy in Ghana) brought peri-urban areas to our attention. Officially the division between rural and urban areas is clear. It is based on the number of people living in the area, less or more than 5.000 for rural and urban areas respectively. In practise this is more difficult, as there are a lot of areas that are on the boundaries of this number and often it is not clear whose responsibility these areas are. Urbanisation has been quite rapid in a lot of areas, which resulted in a lot of slums and smaller towns not having access to safe drinking water. NGOs usually focus on rural communities, as they are easier and cheaper to work with. Water provision is usually more difficult in peri-urban areas; you may need more advanced or larger systems, which makes the projects more expensive. This is why the Dutch Embassy in Ghana launched a subsidy program for WASH projects in a couple of metropolitan districts:

- Cape Coast Metropolitan Assembly
- Komenda Edina Eguafo Abrem (KEEA) Municipal Assembly
- GA Central Municipal Assembly
- GA South Municipal Assembly
- GA West Municipal Assembly

The main conditions for the subsidies include a Public-Private Partnership (PPP) and sustainability. The partnership should consist of at least one public organisation, a company and an NGO. The deadline for the first tender round is 25 November 2013.

[3] The organisation CONIWAS will be described in chapter 2.1

This will most likely be a too short term for LiveBuild, however a second tender round is expected later (Netherlands Agency, Ministry of Economic Affairs (2013).

Regional differences in rural areas

In this part we will line out differences between six rural areas. The water supply in rural areas is managed by the CWSA. In the last decade, the institutional structure for the National Community Water and Sanitation Programme (NCWSP) was developed.

We thus base ourselves on data of this programme provided by the CWSA. In the table below the coverage ratios per administrative region can be found. Rural coverage in the NCWSP is in the National Water Policy (Government of Ghana, 2007) defined as follows:

- Water facility must provide all year round potable water to community members
- Each person must have access to a minimum of 20 litres of water per day
- Each spout of a borehole/standpipe must serve at maximum 300 people and a hand-dug well 150 people
- The maximum walking distance to a water facility must be equal to or less than 500 meters
- The water system is owned and managed by the community through established structures.

Table 1: Water coverage in rural areas (Source: CWSA National Coverage Statistics Potable Water (Community Based Water Systems) 2012.

Region	# Of Communities	Total Rural Population	Rural Population Served	Rural Coverage (%)
Upper West	926	662.239	505.839	76,38
Ashanti	2.900	3.280.309	2.406.651	73,37
Volta	3.255	1.978.557	1.268.727	64,12
Central	3.389	2.051.847	1.312.436	63,96
Northern	3.959	2.338.597	1.458.748	62,38
Greater Accra	1.086	773.511	446.643	60,33
Brong Ahafo	2.847	2.045.223	1.223.399	59,82
Upper East	1.724	1.226.675	729.828	59,50
Eastern	3.330	3.136.893	1.235.300	57,81
Western	1.766	1.566.102	844.806	53,94
Total	25.182	18.059.953	11.452.377	63,41

From the table we can conclude that in neither of the regions the need for water is completely fulfilled at this moment. Based on the improvement since 2009 (CWSA coverage statistics 2009) and our interviews with employees at the national and different regional CWSA offices it is unlikely that the need in any of these regions will be completely fulfilled within two years. As a preliminary conclusion we can thus say that in all the regions in Ghana there would be opportunities to start up safe drinking

water projects. The question is which region would be most suitable to start with, considering the feasibility as defined earlier in this report. Therefore, we chose to focus on the six regions with the lowest coverage ratios. It must be said that this choice is a bit arbitrarily. Our main argument for this choice is that we did want to include the Northern Region as a lot of NGOs are active here and this is the poorer part of country. It must also be said that due to the limited availability of time we were not able to do extensive research on the ground in all of these regions. However, we believe that the information we have gives a fair image of the opportunities in different regions.

Some more general comments can be made. We found that basically in all regions there are possibilities to provide water in terms of water sources. However, there are differences in the way water could be provided and which methods are required. The scope of the need differs per region as we have showed with the national statistics. On the other hand, it is also really dependent on the specific village or peri-urban area chosen. In all regions there is presence of differently sized villages in need of safe drinking water. The potential reach will thus also depend on the size of the village chosen in the end, which in turn will be heavily dependent on the available funds of LiveBuild. Another interesting thing are the opportunities of receiving subsidies from the Dutch state government of projects in certain regions, discussed in section 1.1.3.

The next sections will provide a short overview of the specific facts per region. Furthermore figure 1 gives an idea of the geographical location of the different regions. Not all regions were covered extensively, which is why some sections may be shorter than others.

Northern Region

The Northern Region water coverage almost equals the national coverage level. The three Northern regions (Upper West, Upper East and Northern Region) are the poorest of Ghana. According to Simon Laari (Catholic Relief Services), this is due to two reasons: a geographical and a historical reason. First, there is only one rain season per year in the north of Ghana as compared to two per year in the south and thus, there are less harvesting periods. Second, the British colonists introduced formal education in the south, but not in the north, since people from the North were mainly used as work

force in mines. As a consequence, formal education has been introduced about hundred years later in the North than in the South.

Due to the lack of access to clean drinking water, the guinea worm prevalence in the Northern Region used to be highest of Western Africa. Since most communities are poor, they were unable to build the needed facilities to filter the guinea worm out of the water. As the government also lacks funds to support those communities, many NGO's settled in the North and contributed to provide safe drinking water. The guinea worm has been exterminated for three years now.

We spoke to Ahmed Ewura (CWSA Northern Region) and mr. Baba (Tamale Metropolitan Assembly) about the challenges for the Northern Region. The success rate of boreholes in the Northern Region is only 50% and, due to the low groundwater level, especially low in Tamale Metropolitan. Salty groundwater may also be a problem, as the Belgian NGO Water 4 Ghana faced recently. Thus, the use of groundwater is not easy in this region. Therefore, other and more expensive techniques should be considered.

In a lot of areas there is availability of surface water. However, the systems to properly filter the surface water are complicated and require a certain level of technological knowledge. In Tamale Metropolitan, an expansion of the water network of Ghana Water Company Limited may provide rural Tamale with water.

Greater Accra Region

This region consists out of several districts around Accra. It is surprising that even this region that you would expect to be most developed due to the proximity of Accra still only has rural water coverage of about 60%. We think this partly can be explained by the problems of Ghana Water Company Limited, the quick urbanisation in those areas and the low attention for peri-urban areas as mentioned in section 1.1.3. This region does have opportunities for LiveBuild considering the subsidy programme by the Dutch Embassy. The downside of this region however, is that cooperation with Ghana Water Company will most likely be necessary. Groundwater resources are not much available in this region and often salty due to the proximity of the sea. As mentioned earlier working together with Ghana Water Company Limited is not a feasible option. Own systems for filtering or types or water resources other than boreholes would be a possibility, but might not be feasible in financial terms. Although the subsidy programme may solve the latter, this would require setting up a proper PPP.

Brong Ahafo Region

The districts with the lowest coverage ratios in this region (See Appendix 1 for National Coverage Statistics Potable Water Brong Ahafo Region 2009) are Kintampo South (26,45%), Techiman Municipal Assembly (27,81%), Asutifi (29,95%) and Sunyani Municipal Assembly (32,98%). Thus, the rural water coverage is very low around the major cities Kintampo, Techiman and Sunyani. However, these district level data are from 2009. From the region level data we can conclude that the water coverage in the Brong Ahafo Region rose from 53,61% in 2009 to 59,82% in 2012.

Upper East Region

As explained previously, the Upper East Region is one of the poorest regions of Ghana. This explains why, despite the activities of several NGOs, the rural water coverage is below 60%. CWSA's National Coverage Statistics Potable Water Upper East Region 2009 (see Appendix 1) show that water coverage is lowest in Garu Tempane (43,82%), Bawku West (51,36%) and Bawku Municipal Assembly (58,76%). Between 2009 and 2012, the Upper East Region has made almost no progress in terms of water coverage. In 2012 the coverage was 59,50% compared to 59,19% in 2009.

According to Fathi Anayah and Jagath Kaluarachchi (2009), "the Upper East Region is characterised by shallow and accessible groundwater resources compared to other Northern regions". With a success rate of above 90%, creating boreholes in the Upper East Region is much more successful than in the Northern Region. For more information on the groundwater resources in Northern Ghana, we refer to Fathi Anayah and Jahath Kaluarachchi (2009).

Eastern Region

The water coverage is in this region is especially very low in New Juaben Municipal (30,76%), Kwahu South (37,56%) and Kwahu East (38,92%) (CWSA, National Coverage Statistics Potable Water Eastern Region 2009, see appendix 1).

Regarding the latter two, it is clear that the disadvantage lies in the fact that these are mountainous regions. Communities in this area are very small, and may be interesting. The Eastern Region is characterised by a massive growth in the mining industry, and a massive population growth with it. Because of this, government and NGOs are not able to catch up with the projected coverage in this region. District Assembly officials in the Birim North district (the district below Kwahu West) indeed told us there is a need of

participating NGOs, since the number of NGOs presently active is not sufficient to meet demand. We experienced that the Birim North district is very well run, regarding the institutional framework. We visited all parties from Assembly to NGOs to communities, and everything was very well structured and documented. To support their accomplishments, they even told us they are being used as an example throughout Ghana and even abroad; they were visited by a delegation of 50 Nigerian officials a year ago. An NGO of interest in this region is the Oboomma Rural Action Programme (ORAP). Active for over twenty years, this NGO is very well run and very successful. Much can be learned from them, regarding Ghana in general and everything else from an NGO running water projects.

Western Region

In five districts in this region the coverage is below 30% (CWSA, National Coverage Statistics Potable Water Western Region 2012, see Appendix 1). The regions with the lowest coverage are Shama (25.25%), Prestea-Huni Valley (25.26%) and Bia (28.54%). Surprisingly the percentage taken from the national overview differs a bit from the total statistic of the district data of the Western Region. This casts some doubt about the reliability of this data, however we assume that the real number will be either one of these or around these figures. The Dutch Embassy generally considers the CWSA data reliable as well.

From the regional CWSA office we understood that there is some misconception amongst NGOs about the Western Region (Abrefa Memsa, CWSA Western Region Office). The Western Region is a wet region and has quite a high availability of water resources. The resources are indeed there, but the equipment and knowledge for using these resources is lacking. At one of the local District Assemblies of the Western Region (Wassa Amenfi East) we found out more challenges of the Western Region. The infrastructure is a problem. We also experienced that even the main road in this region is not surfaced. Furthermore, there is a lot of corruption and another problem is polluted groundwater due to heavy mining activities in this region.

1.2 Needs assessment

In the previous section, we provided an overview of the need for safe drinking water on a regional level and discussed reasons for low coverage and future challenges for the most needy regions. However, if LiveBuild wants to initiate a project, the need

should be assessed at a lower level, i.e. at district and community level. In this section, we will discuss how LiveBuild can assess the need at community level.

The policy of the CWSA is based on a demand responsive approach. Communities should apply for support at their District Assembly. The assemblies have an overview of all water facilities in their district and make a policy to improve access to water. Therefore, any NGO in the water and sanitation sector should start at the District Assembly. The District Assembly will appoint a community that needs support.

We spoke to Abrefa Memsa (CWSA Western Region Office). He explained that the CWSA uses three indicators to determine where the need for water is most urgent. First, they consider the coverage rates. Second, data from the World Health Organisation is used to determine the incidence of water related diseases. Third, in order to ensure sustainability, commitment of the community is assessed.

The NGO should basically assert the truthiness of the request and assert whether this community is indeed most needy.

2. INSTITUTIONAL REQUIREMENTS

Ghana started a water sector reform process in the 1990s and approved its national water policy in 2007. The reform process has led to better distribution of tasks among different government institutions and the development of laws, rules and procedures. The policy is largely focused on local involvement for example in siting of water points and selection of water committees. (Transparency International, 2011). Furthermore, major donors in the sector (among others EU, World Bank, the Netherlands government and Unicef) provide support to the main governmental actors to implement the programs they finance and give advice concerning the drafting of policy, engage international and local technical assistants and monitor services.

In our opinion, there is a proper institutional framework present in Ghana to set up sustainable projects for safe drinking water. In this section, the main institutional actors in the field of rural drinking water supply will be pointed out[4] and the presence of institutional capabilities on the project level.

[4] For the reasons pointed out in chapter 1, we will not describe the institutional framework for urban water supply, for which de main responsibility is by Ghana Water Company Limited.

2.1 Stakeholder-identification: main institutional actors concerned with drinking water management in rural Ghana

The *Ministry of Water Resources, Works and Housing (MWRWH)* is the lead governing institution and the focal point for coordination of drinking water supply and water-related sanitation. The MWRWHs main focus is on policy formulation (National Water Policy) and planning, management and evaluation of programmes. Consistent with the GPRS, the overall goal of the National Water Policy is to "achieve sustainable development, management and use of Ghana's water resources to improve health and livelihoods, reduce vulnerability while assuring good governance for present and future generations" (Government of Ghana, 2007). The key agencies of MWRWH carrying ministry's water resources management and drinking water programmes for rural areas are the Water Resource Commission (WRC) and Community Water and Sanitation Agency (CWSA).

The *Water Resource Commission (WRC)* regulates water resources – licensing, registration, and water abstraction and wastewater discharges and coordinates development of relevant government policies related to Water Resource Management (WRM). Basically, the Water Resource Commission ensures that water sources are well used. For LiveBuild, this means that the WRC possesses data about water resources, provides formal assistance to NGOs to find water resources and gives out licenses for the use of water. Especially big users (providing water to more than 5000 people) are required to obtain a permit from the WRC for a small amount of money. Also for digging boreholes a license from the WRC is required. However, it is recommended to hire a local drilling company as they have already obtained this license.

The Community Water and Sanitation Agency (CWSA) is the organisation charged with the responsibility of facilitating access to safe water and other water related facilities to non-urban (rural) communities and small towns. The CWSA coordinates and facilitates the implementation of the National Community Water Sanitation Plan in small communities by the registration of drinking water coverage, providing standards for safe and potable water, providing guidelines for water tariffs[5] and providing support to District Assemblies (DAs) in terms of project planning. Inherent to the approach of the National Community Water Sanitation Plan is that supply of drinking

[5] The Public Utilities Regulatory Commission (PURC) set guidelines for rates to be charged for the provision of water services, dependent on community and facility

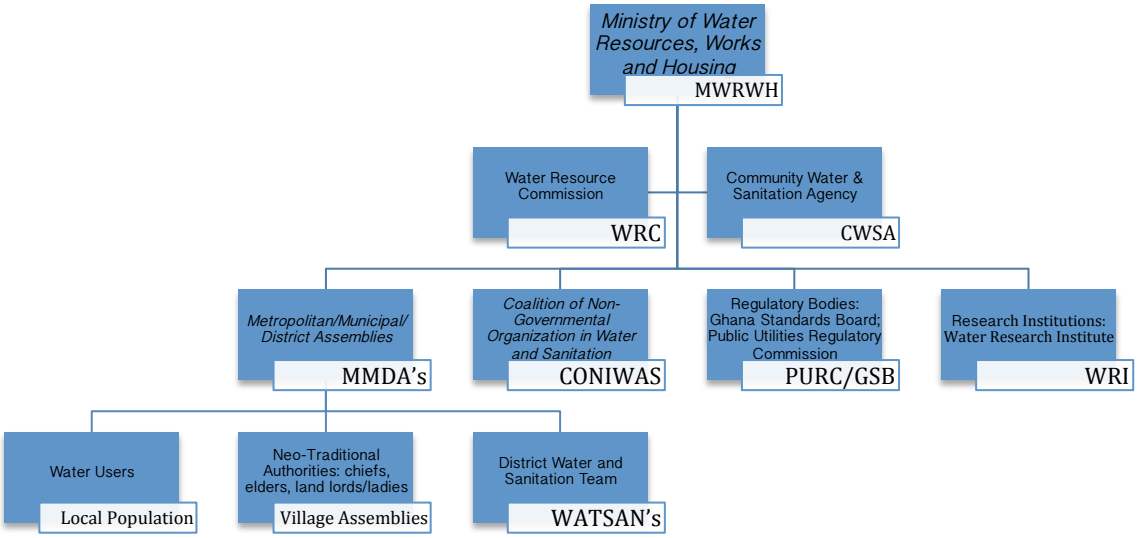
water should meet the quality standards of drinking water6 and water access, water should be provided community friendly and projects should be run sustainably, implying that the local community must be able to sustain the facility themselves after the NGO had left.

The *Metropolitan/Municipal/District Assemblies (MMDAs)* prepare development plans, which include water supply and budgets, mobilise resources, contract private sector and oversee the implementation of the plans for their area. The DA develops a water plan and needs assessment for their district and individual communities. They also approve tariffs and provide long-term back stopping for community management. They are thus very important for setting up a project. As an NGO wants to start up a project, the District Assembly should first be contacted. An NGO can get advice from the DA about the community for starting up a project in terms of needs, commitment and the community profile. Furthermore, they can help with finding partnerships with other NGOs and contracting private sector actors (drilling companies, hardware consultants and consultants for community based training and facilities). This can be useful for ensuring sustainability of the project.

The *Coalition of Non-Governmental Organisation in Water and Sanitation (CONIWAS)* has been formed in 2003 to coordinate the activities of NGOs, to be the official spokes organisation for all NGOs in the sector and to ensure a link between NGOs and government institutions involved in the provision of water and sanitation. CONIWAS can help to approach District Assemblies for example.

[6] The Ghana Standards Board is responsible for developing and setting quality standards drinking water including certification and other related uses

Figure 1: Stakeholder-identification framework: main institutions and actors concerned with drinking water management in Ghana



2.2 Institutional capabilities on the project level

For the project to be run sustainably, institutions need to be in place to ensure replacement of capable people and continuity in proper management in the long run. It is important to build up strong local institutions to ensure proper management of the water scheme. Therefore, a water committee should be set up, focusing on maintenance and repairs, the technical elements of the project and the financial (money collection schedules, allowances) and operational management of the water scheme. From our experience and gathered information in Ghana, it seems that it is very common for a village to have a water committee. *Water and Sanitation Boards and Water and Sanitation Committees (WATSANs)* have been established for all facilities and have been given some level of training to take care of their water and sanitation facilities. These are teams set up in communities to regulate and maintain the water and sanitation facilities in a village. Emmanual Gaze (CWSA National Office) reports that a water and sanitation committee (WATSAN) is required to run the project sustainably. The project, for example, needs a chairman and treasurer, bank account and access to spare parts of the water installation. The water committee should

consist of local people that are around all year. These committees are also important in making sure you comply with local cultural norms. In Mr. Gaze's opinion, sustainability is obtained if there is a reliable system that can be managed by the community also after an NGO had left and therefore selecting the right people for a well-functioning committee is very important.

Yussif Abdul-Rahaman (Pumping is life) notes that there are a lot of difficulties with WATSANs as a high number are not functioning. The problem is that the participants in the WATSAN are not paid and so they do not have the incentive to do their job. People are not very interested in being in the WATSAN after a lot of difficulties with the project. Moreover, there are no prescribed rules and regulations for the WATSAN. For this reason, we think that it is very important to let the community feel responsible. It is best if they set up the institutions in a way that they believe it should benefit and work best for their community. On the other hand, it is important that they make a commitment to the rules and agree on the model chosen.

CASE STUDY: Zoozugu village (Tamale Metropolitan, Northern Region)

Zoozugu village has no (working) facility for water. Ghana Water Company Limited (GWCL) has extended their pipes to Zoozugu but most of the times the system is not running because the water pressure is too low. Moreover, nobody in the village knows how to repair it. Rainwater is collected and people drink this without filtering or cooking it. An alternative source used for drinking is water from the dam, basically a basin of rainwater. During the assembly meeting with the assemblies of Zoozugu village, Suhuyimi Alhassan (Assembly member Zoozugu village) told us that a committee can be set up for running the project and that selecting community members is very important to build capacity. Currently, there are different committees in the village for different tasks. The disciplinary committee, of which the chief is chairman, chooses committee participants

3. REQUIREMENTS FOR FINANCIAL SUSTAINABILITY

In *financial* sustainable projects, a third party initially pays the investment, while the community repays (part of) the investment within of a period of several years. Managed financial sustainably, in the long run, project revenues will be sufficient for maintenance and repairs, depreciation and repayment. In this chapter, we will describe the financial aspect on drinking water supply in Ghana in order to confirm that the requirements for a financially sustainable project are fulfilled. We will first describe the current regular tariffs for safe drinking water. Secondly, we will go into more detail about awareness of benefits of safe drinking water in rural Ghana, necessary in order to determine willingness to pay in section 3.

3.1 Regular tariffs for safe drinking water

First, it is important to make a distinction between the urban regions and the rural regions because, as pointed out previously, the way in which water supply is regulated differs between urban and rural areas.

Urban areas

In the urban areas people pay a fixed amount per litre to Ghana Water Company (GWC). The tariffs set by GWC have to be approved by the Public Utilities Regulatory Commission (PURC).

For a monthly consumption of 0-20.000 litres, one pays 80 Ghanaian Pesewas (around 30Eurocents)/1000 litres. For 21.000 litres and above, one pays 120 Ghanaian Pesewas (around 42Eurocents)/1000 litres. For unmetered premises (flat rate per house per month), one pays 520 Ghanaian Pesewas (around 180Eurcents) per month. For public standpipes, one pays 80 Ghanaian Pesewas (around 80Eurocents)/1000 litres.[7]

Rural areas

In the rural areas the water is mostly provided by a natural source (a lake or a dam for example). This water is unsafe and people do not pay for it. In rural Ghana, it is usual that the community pays for safe drinking water, for example provided by a borehole. It is commonly perceived that letting people pay for using the water resource ensures responsible use of the facility. The tariffs for safe drinking water in rural areas vary

[7] Tariffs are effective since the 1th June 2010, as approved by the PURC and remain in force until they are changed by the PURC.

greatly, though The Public Utilities Regulatory Commission (PURC) set guidelines for rates to be charged for the provision of water services, dependent on community and facility. This is because the WATSAN determines what each household has to pay (for example, by depending on household size), based on the cost of the provision and the guidelines of CWSA. The tariff can vary from community to community but it should be affordable and high enough to maintain the facility. An average price is 5 Ghanaian Pesewas (2Eurocents) per 18litres bucket (CWSA National Office).

3.2 Awareness of the benefits of safe drinking water

The general impression is that people are aware of the importance of safe drinking water. However, it is not always realistic for them to use safe drinking water. For example, the water pump is located at a far away distance of their houses, while a river (with unsafe water) flows next to the houses. Even though people know the pump has healthier water, they would sometimes still take water from the river.

Another issue is sanitation. People may know that it is important to drink safe water, but they need to be educated on how to keep the water safe. Even though people pump the clean water into a bucket and take it home, the water may become dirty because of the way it is kept in their homes. The sanitation of the pump is another issue.

CASE STUDY: Mpintimpi village (Birim North District Eastern Region), Zoozugu village and Detoyili-Kpehiyili village (Tamale Metropolitan, Northern Region)

Awareness of hygiene and benefits of safe drinking water vary per community. In the Mpintimpi villagers take off their shoes before they used the pump, decreasing the possibility that bacteria spread into the water. We also went to Zoozugu, a village near Tamale. A few years ago there were problems with the guinea worm that made people sick and therefore an NGO taught them how to filter the water. However, after the guinea worm had disappeared, they stopped filtering the water because they did not think it was necessary anymore. In Detoyili-Kpehiyili (a village a few kilometres away from Zoozugu), it seemed that they understood the benefits of safe drinking water, as they were mentioning sickness as a consequence of their current drinking water. Moreover, water used for drinking was often filtered and cooked by the villagers.

3.3 Willingness to pay for safe drinking water

In general, people know that safe drinking water is valuable and thus comes at a cost. However, people are not always able to pay for safe drinking water, especially in the Northern regions where communities are in general poorer than in the South. It is also common that poorer households in the community do not pay anything or very little but instead the richer households bear all or most costs. How much people are willing and able to pay varies heavily per community. Each community can choose their own method of payment as long as it complies with the CWSA guidelines. The handling of payments is the uniqueness of policy and varies from community to community. For example, how costs are divided among members of the community and how often fees are collected (weekly, monthly, every time you use the water pump or only when the pump has defect). The managerial aspects of collecting money and rules are important and managerial capabilities vary per community. For example, communities nearer urban areas have enlightened mobilisation skills (often have bank accounts). More rural communities have only seasonal income flows because of the seasonal harvest. This makes regular payments for water services more difficult.

In our experience, it is customary that the community has discretion over how the tariffs are charged to its members.

Yussif (Project Manager NGO "Pumping is Life") explained that the initial payment determines financial sustainability. In Ghana, it is common that the community pays 5-10% of the initial payment. In his opinion, financial sustainability is determined by the initial amount paid by the community. However, Mr. Imore (team leader (CEO) of New Energy Ghana) has another opinion. He argues that it is weird that the very poor villages have to pay for the investment while in the (richer) cities the pipe system is paid for by the government. Mr. Imore told us the 5% capital cost rule does not work in practise and there is also no evidence that this requirement increases the sustainability of a project. We also observed that water systems in a village provided by NGOs are often perceived as a gift and the community only pays a small amount for maintenance (e.g. 2 Ghanaian Cedi (around 70 Eurocents) per month per household).

If LiveBuild decides to enter Ghana it is advisable to follow other NGOs' lead and let the community itself decide on the division of the tariff for water and their handling of

payments. In general, from our knowledge, villages are able to collect money for the maintenance of the facility, but not for gaining back the initial investment.

CASE STUDY: Mpintimpi (Birim North District, Eastern Region) and Zoozugu Village (Tamale, Northern Region)

In one village we visited, Mpintimpi (Birim North District Eastern Region), the village collectively decided on how much its inhabitants pay. One person was assigned treasurer and he was responsible for collection of the fees. The village actually succeeded in generating more revenues than was needed for maintenance. The village decided to direct these excess revenues to other projects such as childcare. Also in Zoozugu village, though there is no working water system yet, the assemblies told us that it is feasible for people to pay a small amount and that a secretary will be responsible for collecting the money.

4. REQUIREMENTS FOR OPERATIONAL SUSTAINABILITY

For a project to be run sustainably, technical security for operation and maintenance of the water system should be present. Moreover, there should be sufficient local knowledge and willingness to participate to make the local community owners of the system and run and maintain the project in the future. In this chapter, we will describe the current situation in Ghana on all these aspects of operational sustainability. In our opinion, the situation in Ghana on these aspects is sufficiently developed in order to set up sustainable water projects.

4.1 Technical security for operation and maintenance of the water system

One requirement needed to maintain operational sustainability in a water project in Ghana is technical security. The technical possibilities vary across the different regions and available water sources in Ghana. While researching such technical possibilities, five options were observed: hand dug wells, bore holes, electric bore holes, solar powered electric bore holes, and water systems kiosk.

Mr. Frederic, director of water at the Ministry of Water Resources, Labor and Housing, explained us that the solution depends on the size of the community. Communities with less than 75 inhabitants usually get a borehole with a pump. If the number of inhabitants is between 75 and 250, then the community usually gets a system of connected boreholes. If the number of inhabitants exceeds 250, the community usually needs a more advanced water system. The variety of systems observed is encouraging but also limited, meaning that an NGO has options for which kind of water management project it chooses to invest in as long as it fulfils the necessary population quota.

CASE STUDY: village Obomeng (District Kwahu South, Eastern Region) and Mpitimpi (Birim North District, Eastern Region) and Zuarango (Upper East Region)

When visiting Obomeng, we observed that boreholes and electric bore holes were the most common water system for that particular region. This was greatly related to the population density of those areas, for which the NGOs had allocated different water source types for different communities. The villages Obomeng and Mpitimpi were operated by electric and manual bore hole pumps respectively. Mpitimpi was in the process of acquiring an electric bore hole due to an increase in population. When visiting the village of Zuarango, a vastly populated village in the Upper East Region of Ghana, we observed many manual pumps. Yet the village also had an electric bore hole running on solar panel whose panel had been stolen and a water tower that pumped water from a nearby dam. Lastly, while the other water sources were more prominent in rural areas, in the urban areas near Bolgatanga, an NGO brokered deals with the Ghana Water Company Limited to tap water from the piped sources called a water system kiosk.

The maintenance of a water system is essential for operational sustainability. Policy of the CWSA states that there may not be a downtime longer than 72 hours. If there is a breakdown the installation must be fixed within this time limit. Simply, we observed that the WATSANs are in charge of minor repairs to the water source and that if something more serious occurs, a regional mechanic is called to fix it. Emmanual Gaze (CWSA National Office) told us that currently an SMS technology is being set up to speed up the process. If there is a problem you can SMS a code and this will reach someone to repair the system.

4.2 Local knowledge

Local knowledge of sustainable water management is another requirement for obtaining operational sustainability. In order to be able to maintain the water project, it is very important that local people have the necessary technical knowledge and skills. The need for education and training of the participants in the water project depends on the nature and technical level of the project and the availability of local knowledge present. As Ahmed Ewura (CWSA, Northern Region) told us, a lot of people in the Northern regions (Northern Region, Upper East and Upper West) are not educated, which makes it hard to find reliable people to train for the maintenance of the project. "There is a certain limit in the amount of training you can do. If people are illiterate for example, it will cost too much time to train them for the maintenance of a water system." In a lot of communities only a few people are literate or speak English. According to Mr. Imore (New Energy) '80% of the people in the North do not speak English'. Also the language barrier makes it hard to find reliable people to train for the maintenance of the project. If the level of education is low and it will be hard to train people, more simple solutions should be implemented. Even with simple technologies, members of the WATSAN need to be trained and briefed on minor repairs to the water system to be able to repair the water system independently. However, Barbara Schroijen-Bax (Stichting Bouwen) told us "in general Ghanaian people have limited or primitive knowledge of building water systems. We teach local people in the project everything on site; they do not get any education. Sometimes this can take a while because people are not used to the materials/technicalities (for example a water level). Actually we never faced any serious problems in training them".

Representatives of NGOs (Water Access Now for example) and Elsie Appau-Klu (Policy Advisor – Water and Governance of the Dutch Embassy in Ghana), told us that

it is advisable for an NGO to engage with local partners when setting up projects in local communities. Given the language barrier and the wealth of knowledge available in local organisations on how to motivate communities, raise awareness, train members of the WATSAN, and acquire the necessary equipment and parts, this local partner could implement the software of the project (electing WATSAN members, community entry). Furthermore it could perform the work (monitoring, training) for the NGO in case of absence. These local partners know the communities, best working method and make use of local firms for the technical part of the project. Examples of local partners are Kalabash Foundation (working for the Dutch NGO FloorGhana), New Energy and Catholic Relief Services an international NGO that is active in Ghana since 1958 and focuses on the three Northern Regions. We spoke with Simon Laari (HIV/AIDS and WASH advisor CRS, located at the field office in Tamale) and Mohammed Ali (health manager CRS, located at the head office in Accra) and they told us, among other things, that CRS cooperates with other NGO's, because CRS has a lot of knowledge about technical solutions, people, communities, culture, local laws and who to engage. Cooperation helps to share knowledge and to use all its potential.

4.3 Commitment to participation in the long run

In general, Ghanaian people are aware of the problems at hand. They understand their position as a developing country, and they want to achieve a better future. For that reason, they are often aware of the lack of their basic needs and willing to commit to the project to improve their livelihoods. However, we have to be careful on the truthfulness of their expressed willingness to participate in and commitment to the project, as people may often not be telling the whole truth, always answer with a 'yes' if that means they get external help or underestimate the implications of setting up a project. Based on our experience, participation in the long run is hard to assess and to generalise for the whole of Ghana. What we do know from our own observations is that it is possible to construct a system with accountability and commitment. As a civil servant mentioned in an interview "In one village the chief went to the police and had some people arrested for unwillingness to pay for fetching water. They ended up being fined more for their bail and legal fees than just paying in the first place". While the example used in that case was an extreme – the civil servant said they often used it as an anecdote to encourage cooperation and prevent future fall out.

There are different ways of assessing the community's willingness to participate in and commitment to the project. For example, letting the community request for a water system at the (local) government shows awareness of needs and commitment to the project. The community is probably more willing to take care of the project if they are aware of their needs. Yussif (Project Manager NGO "Pumping is Life") told us that in general, women show higher willingness to participate as they carry the water (and thus take the burden). One could also think about *when* to perform a needs assessment. Rev. Sampson Tettey from World Vision recommended us to perform a needs assessment in a community in the dry season because then, the need is highest and people are thus more willing to participate. On the other hand, when a community shows commitment in the rainy season, it would probably be willing to participate in the dry season as well.

CASE STUDY: Village Mpintimpi (Birim North District, Eastern Region) and Detoyili-Kpehiyili (Tamale Municipal)

In the village Mpintimpi (Birim North District, Eastern Region) mentioned in chapter 3, a project was started about five years ago. This project, which included water provision, sanitation and the education needed on both issues, was managed by the community and proved to be very successful. Another visit to the community of Detoyili – Kpehiyili (Tamale Municipal) showed that the inhabitants were eager to participate in the project. Important for them is improving well-being of their children.

5. REQUIREMENTS FOR SOCIAL SUSTAINABILITY

For a project to be run sustainably, stable social structures should be present within the community to assure that the management of the project will be uphold till the long-term future. External partners should also be accepted by the community and get unconditional support by the community to assure that in the future the project can be run mainly by the community itself.

5.1 Stable social structures in communities

Ghana is a country where seniority, family relations and other hierarchical structures, like tribes, are very important. This implies that social cohesion is very strong. Unlike other African countries, there is absolutely no threat to the stability of the country, ethnical nor religious. On the village level, we observed strong hierarchical structures, in which the chief, elders and landlords/ladies all have their own rights and duties. Officially the role of traditional leaders is to mobilise people to pursue development goals at the local and community levels. The chief, with its respect and knowledge about its community and its members, is the one that chooses the members for different committees in the village for different tasks.

5.2 External partners and support of the community

The first part of this statement can be acknowledged, since the initial procedures are demand driven. Although most people in Ghana perceive water facilities as a task of the government, Ghanaian people are aware of the fact that the government does not possess sufficient resources to provide basic needs to the whole population and thus external help is necessary and accepted. The second part is harder, not in the last place because the people of course have one major condition: they want what they are promised. A lot of effort has to be put into gaining peoples trust and getting to know them. It will be a great help if one employee is stationed in Ghana permanently, not only to get to know the Ghanaians, but also to get them to know you.

PART 3

1. RECOMMENDATIONS

Given the advice as described in part 1 and the arguments and ideas given in part 2, in this final section, we will share some recommendations on "how to expand to Ghana", based on our experiences and acquired knowledge in Ghana.

Aim at rural areas

As outlined before urban areas are not a good focus area, because drinking water supply is dependent on Ghana Water Company Limited, which cannot be trusted upon and is too corrupt. Apart from this, we are left with the peri-ruban and rural areas, both struggling with low drinking water coverage. As the peri-urban areas are more difficult to work with, because of the population size and the lack of stable social communities within these areas, we advise LiveBuild to start off with projects in rural areas.

Upper East Region

One of the biggest questions will be in *which* region to start. This will depend on what choices LiveBuild will make in the end. It definitely makes sense to look at the coverage ratios, but also other issues as accessibility and community profiles should be taken into account, especially for the first project to set up. Therefore, we would recommend the Upper East region to start with. The institutional framework is present, local partners will be easy to find and as this is still a relatively poor part of the country, it is an urgent region in terms of needs for safe drinking water. Furthermore, groundwater sources are present and accessible, which make the use boreholes (the easiest and cheapest option) feasible.

Find a local partner

We already outlined this before, but since it is very important in our opinion we want to stress it once more. To build a successfully sustainable project, willingness to participate in and commit to the project is something that needs to be taken into serious consideration. It could be difficult to assess the community on these aspects, especially without knowledge of local customs and traditions. Therefore, we advise LiveBuild to engage with a local partner that could implement the software of the project (electing WATSAN members, community entry). Furthermore it could perform the work (monitoring, training) for the NGO in case of absence. Examples of local partners are Kalabash Foundation (working for the Dutch NGO FloorGhana), New Energy and

Catholic Relief Services. We are convinced of the statement that cooperation helps to share knowledge and to use all its potential.

Work on an integrated Water, Sanitation and Hygiene approach

An essential requirement to set up a sustainable project is an integrated water, sanitation and hygiene approach. Any NGO wanting to enter Ghana must comply with including sanitation and hygiene into their water management proposal as it is in accordance with the national WASH plan. Without incorporating these two aspects into the water management system, the project is highly unlikely to ever take off in Ghana. Moreover, sanitation is a bigger problem in Ghana as only about 13% of the people have access to proper sanitation (Bimal Tandukar, SNV). Furthermore, we observed that it is actually impossible to achieve a credible or sustainable water management system without first addressing the issue of sanitation and hygiene. The water sources are vulnerable to pollution that in turn affects the health of the community as a whole. Open defection is alarmingly common in Ghana, in both the north and the southern regions; and in both the urban and rural societies. Overall, the addition of sanitation and hygiene to a water management plan is essential for any NGO wanting to enter Ghana and paramount for any NGO wanting to truly improve the quality of life for its people. It must me noted however that this part of the project could also be carried out by another organisation. A partnership could be formed where LiveBuild works together with a partner specialised in Sanitation and Hygiene. The Dutch organisation SNV is working in this sector and could potentially be an interesting party.

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2009 National Coverage Statistics
Potable Water (Community Based Water Systems)

GREATER ACCRA Region

	No Of Communities	Total Population	Facilities							Population Group Served					RURAL Coverage	
			SHP	HDW	SCPS	STBS	LOS	SHS	GWCL	Below 75	75 - 299	300 - 1999	2000 - 4999	5000 and Over	RURAL Population Served	RURAL Coverage
ASHAIMAN MUNICIPAL	6	3,592	0	0	0	0	0	0	0	62	0	2,125	0	3	2,156	60.39%
DANGME EAST	77	138,073	17	21	2	0	3	0	2	249	4,463	48,930	52,725	21,184	107,559	77.90%
DANGME WEST	236	183,925	29	8	1	1	3	0	1	324	8,450	68,414	22,458	41,164	142,222	82.37%
GA EAST	88	35,391	2	14	4	0	3	0	0	94	1,155	18,076	2,030	0	21,487	61.34%
GA SOUTH MUNICIPAL	163	109,629	37	71	1	0	0	0	0	247	5,763	21,725	3,544	0	31,78	29.25%
GA WEST	129	116,376	71	8	2	0	0	0	0	74	4,482	13,649	2,402	3,630	24,305	22.35%
TEMA MUNICIPAL	53	83,166	8	0	1	0	0	0	0	0	1,712	9,418	17,722	34,622	63,753	71.93%
TOTAL	851	670,060	227	72	7	1	9	0	0	1,051	24,435	181,537	81,848	97,630	393,677	58.75%

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2009 National Coverage Statistics
Potable Water (Community Based Water Systems)

BRONG AHAFO Region

	No Of Communities	Total Population	Facilities: HP	HDW	SCPS	SYPS	IPS	BHS	OWCL	Population Group Served: Below 75	75 - 299	300 - 1999	2000 - 4999	5000 and Over	RURAL Coverage: RURAL Population Served	RURAL Coverage
ASUNAFO NORTH	237	147,172	84	62	2	2	0	0	0	74	8,117	16,054	8,844	45,774	80,360	55.02%
ASUNAFO SOUTH	159	71,013	84	63	2	2	2	0	0	273	6,338	12,784	2,630	15,176	42,248	59.54%
ASUTIFI	165	148,993	45	116	2	2	0	0	0	521	5,030	12,259	10,085	16,138	44,620	29.95%
ATEBUBU AMANTIN	133	95,489	137	5	2	1	0	0	0	82	4,119	21,103	7,480	35,328	68,072	70.95%
BEREKUM	65	81,798	133	6	2	0	0	2	0	0	2,867	24,421	12,962	7,240	47,630	57.10%
DORMAA EAST	152	46,247	54	25	2	0	3	0	0	258	2,561	3,416	4,000	0	16,280	35.18%
DORMAA WEST	179	103,454	151	38	0	0	2	0	0	276	6,976	30,600	9,620	800	47,467	47.24%
JAYAN NORTH	60	92,237	165	1	2	0	0	0	0	105	1,027	13,479	18,784	36,825	71,199	77.18%
JAYAN SOUTH	76	98,914	211	25	5	0	0	2	0	47	2,533	23,237	35,303	28,016	89,937	90.94%
KINTAMPO NORTH	117	114,213	88	0	1	0	0	0	0	2	1,232	11,616	9,535	35,713	54,548	47.76%
KINTAMPO SOUTH	91	65,797	60	1	0	0	0	0	0	2	1,999	8,846	2,420	203	17,405	26.45%
NKORANZA NORTH	62	63,651	75	9	0	0	0	0	0	30	81	15,950	12,620	800	27,501	43.21%
NKORANZA SOUTH	67	87,237	93	3	2	0	0	0	0	0	642	8,862	8,900	23,690	40,994	47.01%
PRU	162	131,353	203	4	1	1	0	0	0	0	5,334	27,238	12,052	31,856	76,476	58.00%
SENE	169	95,585	168	1	1	0	0	0	0	685	3,594	10,024	22,605	14,503	51,429	57.41%
SUNYANI MUNICIPAL ASSEMBLY	77	81,327	27	23	0	0	0	0	0	177	2,870	2,945	3,400	0	10,392	32.50%
SUNYANI WEST	87	33,571	52	13	0	0	0	0	0	121	3,933	9,397	2,860	0	17,251	51.08%
TAIN	186	163,157	232	0	0	0	0	0	0	25	3,216	31,437	23,862	20,620	79,510	48.65%
TANO NORTH	69	77,143	75	31	2	0	0	0	0	252	3,825	14,310	5,402	22,108	47,896	61.83%
TANO SOUTH	85	71,845	53	23	2	0	0	0	0	10	2,323	15,056	1,800	24,761	44,052	61.32%
BROEMAN MUNICIPAL ASSEMBLY	82	123,718	79	76	2	0	0	0	0	41	3,116	18,352	12,020	1,200	34,409	27.81%
WENCHI	132	69,685	91	2	2	1	0	0	0	118	1,492	9,764	18,345	18,673	49,893	69.09%
TOTAL	2,003	1,974,329	2,304	535	25	4	0	0	0	3,224	71,802	352,439	242,938	368,112	958,444	53.62%

2009 National Coverage Statistics
Potable Water (Community Based Water Systems)

UPPER EAST Region	No Of Communities	Total Population	Facilities							Population Group Served					RURAL Coverage	
			BH	HDA	SCBS	SPRS	LMS	RHS	GWCL	Below 75	75 - 299	300 - 1999	2000 - 4999	5000 and Over	RURAL Population Served	RURAL Coverage
BAWKU MUNICIPAL ASSEMBLY	228	98,262	309	55	0	2	0	0	0	93	9,631	63,949	12,600	7,521	113,642	58.76%
BAWKU WEST	249	206,228	316	91	0	2	0	0	0	174	9,141	74,697	14,125	3,233	105,918	51.38%
BOLGATANGA MUNICIPAL ASSEMBLY	36	90,175	188	14	0	0	0	0	1	0	5,864	44,229	3,630	4,410	58,033	72.48%
BONGO	217	39,377	238	15	0	0	0	0	2	48	11,598	68,134	1,230	0	81,156	77.03%
BUILSA	308	25,368	270	57	0	4	0	0	2	148	9,120	63,740	3,730	0	72,238	57.73%
GARU TEMPANE	248	32,527	298	19	0	1	0	0	2	139	7,073	44,232	1,375	5,580	71,218	43.82%
KASSENA NANKANA EAST	20	56,495	135	23	0	0	0	0	2	22	4,525	31,082	5,486	0	42,059	61.46%
KASSENA NANKANA WEST	130	128,662	223	41	0	2	0	0	0	0	3,629	58,316	3,089	8,228	63,962	49.15%
TALENSI-NABDAM	86	100,315	136	47	0	3	0	0	0	18	1,224	37,378	24,738	5,564	68,277	34.15%
TOTAL	1,226	1,168,347	2,122	512	0	14	0	0	9	595	62,022	483,749	68,580	42,518	681,561	58.9%

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2009 National Coverage Statistics
Potable Water (Community Based Water Systems)

EASTERN Region

	No Of Communities	Total Population	Facilities: BH	HDW	SCPS	STPS	EMS	BHS	GWCL	Population Group Served: Below 75	75 - 299	300 - 1999	2000 - 4999	5000 and Over	RURAL Coverage: RURAL Population Served	RURAL Coverage
AKWAPIM NORTH	236	75,198	51	103	0	0	0	8	0	168	10,912	26,690	2,438	0	40,125	53.37%
AKWAPIM SOUTH MUNICIPAL	100	27,813	59	57	0	0	0	0	0	492	4,795	11,131	2,267	0	8,685	67.18%
AKYEMANSA	98	57,934	102	28	0	2	0	0	0	0	8,582	17,795	16,238	8,021	43,117	74.61%
ASUOGYAMAN	132	90,998	117	46	0	0	0	0	0	135	7,530	38,216	9,895	5,224	60,770	66.82%
ATIWA	118	136,387	168	36	0	2	0	0	0	0	4,055	16,207	20,981	43,756	88,030	64.27%
BIRIM CENTRAL MUNICIPAL	31	27,725	27	6	0	1	0	0	0	0	520	2,805	3,346	11,147	19,820	71.48%
BIRIM NORTH	85	64,735	149	26	0	3	0	0	0	227	2,741	23,765	15,474	6,211	47,389	73.81%
BIRIM SOUTH	39	62,074	54	1	0	1	0	0	0	0	1,312	6,300	7,200	22,774	37,591	60.51%
EAST AKIM MUNICIPAL	91	61,816	98	8	0	2	0	2	0	0	2,541	14,595	12,865	15,736	45,365	73.38%
FANTEAKWA	147	98,387	104	8	0	1	0	0	0	126	3,853	34,699	5,802	6,021	51,441	52.28%
KWAEBIBIREM	258	182,202	217	125	1	6	0	0	0	138	10,865	31,178	28,758	43,631	117,075	64.26%
KWAHU EAST	15	16,830	18	1	0	0	0	0	0	84	0	837	5,030	0	5,951	35.32%
KWAHU NORTH	157	98,752	143	3	0	2	0	0	0	96	3,109	25,244	8,244	9,263	52,746	53.41%
KWAHU SOUTH	125	68,252	72	48	0	1	0	0	0	371	2,804	15,862	5,000	0	25,037	37.66%
KWAHU WEST MUNICIPAL	63	55,328	70	31	0	0	0	0	0	35	1,215	21,084	12,228	0	34,562	62.47%
LOWER MANYA KROBO	51	24,509	20	7	0	0	0	0	0	0	1,436	4,375	0	6,133	11,944	50.58%
NEW JUABEN MUNICIPAL	46	20,958	20	15	0	0	0	0	0	0	1,915	4,630	0	0	6,445	30.76%
SUHUM KRABOA COAKOR	332	103,495	205	214	0	1	0	0	0	385	13,037	32,816	10,934	0	56,802	54.89%
UPPER MANYA KROBO	277	138,784	195	62	0	1	0	0	0	0	8,425	45,984	8,150	0	62,559	45.55%
WEST AKIM MUNICIPAL	177	104,419	158	103	0	2	0	0	0	562	6,744	20,953	18,271	7,853	53,383	50.51%
YILO KROBO	251	56,423	135	99	0	0	0	0	0	217	7,302	21,262	6,125	6,364	50,268	52.07%
TOTAL	2,746	1,607,357	2,274	1,235	0	26	0	8	0	3,105	89,685	453,567	232,872	196,035	941,337	58.55%

2012 National Coverage Statistics
Potable Water (Community Based Water Systems)

WESTERN Region

	No Of Communities	Total Population	Facilities							Population Group Served					RURAL Coverage	
			BH	HDW	SCPS	STPS	LMS	RHS	GWCL	Below 75	75 - 299	300 - 1999	2000 - 4999	5000 and Over	RURAL Population Served	RURAL Coverage
AHANTA WEST	127	122,051	110	34	1	2	0	0	0	50	2,331	29,230	23,624	21,157	76,392	62.59%
AOWIN - SUAMAN	165	136,395	150	34	1	3	0	0	0	117	3,577	39,581	12,270	27,376	82,921	60.79%
BIA	169	145,299	58	27	0	3	0	0	0	312	1,336	9,975	8,404	21,443	41,470	28.54%
BIBIANI-ANHWIASO-BEKWAI	88	144,947	117	14	3	1	0	0	0	99	2,890	23,485	17,853	66,419	110,746	76.40%
ELLEMBELLE	82	115,445	103	23	5	4	0	0	0	0	438	24,789	27,540	21,541	74,308	64.37%
JOMORO	87	129,872	116	36	1	4	0	0	0	0	771	23,672	26,977	33,359	84,779	65.28%
JUABESO	114	124,833	74	29	1	5	0	0	0	18	865	13,740	20,372	21,421	56,416	45.19%
MPOHOR WASSA EAST → mpohor	170	122,452	75	57	3	2	0	0	0	168	3,243	18,702	18,396	27,319	67,828	55.39%
NZEMA EAST MUNICIPAL	78	63,939	56	20	1	0	0	0	0	47	1,175	20,906	1,600	0	23,728	37.11%
PRESTEA-HUNI VALLEY	172	138,979	82	44	1	0	0	0	0	106	3,334	26,238	4,623	800	35,101	25.26%
SEFWI AKONTOMBRA	61	45,836	27	44	0	1	0	0	0	118	1,603	11,070	1,800	5,499	20,090	43.83%
SEFWI WIAWSO	106	134,181	81	25	4	1	0	0	0	80	1,227	16,787	13,475	57,551	89,120	66.42%
SEKONDI-TAKORADI METRO	5	3,410	2	1	0	0	0	0	0	0	0	1,000	0	0	1,000	29.33%
SHAMA	26	22,204	15	4	0	0	0	0	0	0	957	2,649	2,000	0	5,606	25.25%
TARKWA-NSUAEM MUNICIPAL	90	109,931	64	19	2	0	0	0	0	6	1,783	17,182	6,153	11,091	36,215	32.94%
WASSA AMENFI EAST	99	110,867	87	2	2	1	0	0	0	0	1,917	23,250	10,888	14,066	50,121	45.21%
WASSA AMENFI WEST	127	131,437	100	41	1	2	0	0	0	23	3,562	21,666	13,000	28,634	66,885	50.89%
TOTAL	1,766	1,802,078	1,317	454	26	29	0	0	0	1,144	31,009	323,922	208,975	357,676	922,726	51.20%

Appendix 2 Water – Laws, rules and documents required for setting up a social water enterprise

Documents required

In order to be able to set up a social water enterprise in Ghana different policies, laws and institutions have to be taken into account. These regulations oblige NGOs to possess certain documents before an NGO can be set up and a work permit can be obtained.

Policies, laws and rules say the following documents are required in order to set up an NGO in Ghana (Stichting Bouwen, 2013):

- Certificate of Incorporation
- Certificate of Commence Business
- Companies Code

A work-permit costs around 400GHC a year (Ghana Immigration, 2013). The Applicant should completely fill the application form (retrieved at the receiving counter of the Ghana Immigration Service (GIS) Headquarters).

The following documents are required in order to apply for a work permit:

- Certificate of Incorporation
- Certificate of Commence Business
- Companies code
- Copy of Bio-data page of employee's Passport
- Curriculum Vitae
- Professional and educational Certificate
- Offer/Appointment letter/contract of employment
- Audited accounts of previous year
- Medical report (recognised Hospital in Ghana)
- Police clearance report
- Annual Report

Important institutions

For setting up an NGO the following institutions are relevant:

- Customer service office
- Commissioner of Oaths
- Registrar-General's Department

- Metropolitan authority
- Revenue Accountant
- Revenue Mobilisation Subcommittee
- Executive Committee

Steps for setting up a business

In 7 steps a business can be founded in Ghana (Going Business, 2013).

Step 1: Check for availability of company name and submit company documents to obtain an incorporation certificate
Where: Customer service office

What: Company regulations (four copies)

Tax identification number form (one copy)
→Both including:

Name of company

Description of the kind of business

Full names of subscribers and shareholders, their addresses, percentage shareholdings, occupation, and any directorships in any other company

Full names of the first directors of the company. A company must have a minimum of two directors and at least one director must be a resident of Ghana at all times, of sound mind, and of legal age (not younger than 21)

Full name and address of company secretary and auditors

The number of shares that the company is to be registered with and the stated capital

An attestation that the minimum nominal capital complies with the requirement that a company 100% Ghanaian-owned have minimum nominal capital of at least GHC 500

Step 2: A Commissioner of Oaths authenticates forms required for the certificate to commence business
→Usually, this takes one day.

Step 3: Obtain from the Registrar-General's Department the certificate to commence business

Fill in Form 3

Fill in Form 4

→including:

Name and address of the company's qualified auditor

The address of its registered office

Its register of members

The amount of stated capital; and

The number of issued and unissued company shares.

→Forms 3 and 4 must be signed by all company directors and the secretary. As the company's commencement tax, 0.5% of the stated capital is collected by the Registrar-General's Department on behalf of the Internal Revenue Service (IRS).

→The Registrar of Companies now automatically registers new companies with the IRS.

Step 4: Deposit paid-in capital in an account

The following documents must be presented to deposit paid-in capital in a bank account: copies of company regulations; the certificate of incorporation and the certificate to commence business; and signatures of the authorised company representatives.

Step 5: Apply for business licenses at the Metropolitan Authority

The cost to apply for a business license at the Metropolitan Authority depends on the type of business and the category in which it falls:

GHC 500.000 in turnover: GHC 400

GHC 210.000 – 500.000 in turnover: GHC 245

GHC 100.000 – 200.000 in turnover: GHC 160

GHC 3.000 – 100.000 in turnover: GHC 91,50

GHC 0 – 3.000 in turnover: GHC 49,50

Step 6: Inspection of work premises by the Metropolitan Authority

→ An officer visits the business premises and reports to the Revenue Accountant of the Metropolitan Assembly, who then submits a report to the Revenue Mobilisation Subcommittee of the Metropolitan Assembly. The subcommittee meets to deliberate on the report and then recommend to the Executive Committee of the Metropolitan Authority, whether any adjustment is required.

Step 7: Apply for social security

To apply for social security, the company must attach:

List of employees

Their respective salaries and social security numbers

Company's certificate of incorporation

Certificate to commence business.

Additional information

In case of a joint venture with a Ghanaian entrepreneur, the foreign investor must have a minimum equity capital of US $10.000 (Embassy of Ghana, 2013). The foreign shareholder is required to satisfy this minimum equity capital either in cash transferred through Ghana's banking system or its equivalent in the form of goods, plant and machinery, vehicles or other tangible assets imported specially and exclusively to establish the enterprise.