

Open Government Data

Feasibility Study in Ghana

Developed by:

In partnership with:



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Executive Summary

The study presented in this report investigates the applicability and potential impact of an Open Government Data (OGD) initiative in Ghana. With inputs from a Reference Group of 23 experts, we carried out desk research, literature review and collected data inclusive of a country visit. Thirty-four people were interviewed over eleven days and their overarching views on aspects related to OGD were collected.

The dimensions explored included political willingness, public administration readiness, and the role of civil society organizations.

The study revealed that Ghana presents a compelling case in terms of OGD readiness. Based on our assessment of the three layers – Executive, Public Administration and Civil Society – the current situation in Ghana appears conducive to an Open Government Data program being relevant and potentially successful in terms of transparency of governance and services to citizens. The summary of the evaluation of Ghana's readiness as well as suggested actions for implementation are presented here.

Readiness of Ghana

Executive Level

- Ghana has a government with the political will to make information transparently available to its citizens. This is the first democratically elected government that has a Right to Information (RTI) Act in its manifesto. The government's willingness at the agency level outweighs fears that corruption or secrecy issues may make an OGD initiative impossible.
- The President of Ghana is the prime mover behind enacting the RTI. The Vice President himself uses social media tools to interact with citizens.
- Though a clear legal framework for an OGD initiative is missing, it is however expected that the Right to Information Act will be implemented soon. Once enacted by law, the RTI Act would provide the much needed legal framework on

which OGD initiatives can be implemented and supported.

- Ghana's Ministry of Communications has created an institutional framework to attract investments related to the use of Information and Communications Technology (ICT) in public administration.

Public Administration Level

- Government departments and agencies are interested in creating OGD initiatives that can be extended to the middle layer of Public Administration. For instance, the newly launched National IT Agency (NITA) and its Chairman, Nii Quaynor, understand the potential of such initiatives, its impact on the government's internal functioning and the services that can benefit its citizens. The Minister of Telecommunications is also a strong champion of OGD initiatives.
- Significant information is already available in digital format; however end user access still remains on paper. This inhibits reuse of information. On this front, the recent census (October 2010) can be a potential source of useful and non-sensitive information for civil society organizations that could help in bootstrapping the process.
- Early stage pilot initiatives (e-Ghana) on information openness in Public Administration have received budgetary support for a 2012 implementation target.

Civil Society Level

- The media and the civil society have played a prominent role in ensuring that the RTI Act enshrines free availability of information, especially related to the various exceptions in the Act itself. Some of the organizations clearly understand how an OGD initiative can help and make possible the implementation of the RTI act, and meet citizen's expectations.
- There is already a movement towards reuse of information driven by organizations like the Population Council as well as Universities such as Cape

Coast, that are advocating for access to raw data for their studies.

- On the ICT front, while ICT development level remains low in terms of Internet connectivity, the use of mobile phones is increasing exponentially. Basic mobile services have a high penetration level in rural areas.

Actions for Implementing an OGD Program

Executive Level

- Raise awareness at the highest political level on how OGD is a critical instrument for implementing transparency. Bringing in country champions like Tim Berners-Lee, Barack Obama, or Gordon Brown would be a powerful way to attract positive attention.
- Ensure that the RTI Act is ratified by Parliament and institutional mechanisms for implementation are in place.
- Remove barriers related to exceptions provided by law and make the system of information sharing transparent.
- Ensure budgetary and leadership support to key institutions like NITA that are willing to act as OGD champions in the pilot phase.

Public Administration Level

- Support key agencies like the NITA and Ministry of Communications in developing a common methodology for Open Data. Select and adopt open standard formats for data to facilitate reuse.
- Analyze information available within the administrative layer that is generally

considered to be neutral (e.g. census data of 2010), and release such data sets as part of pilot projects to generate interest.

- Improve the capacity of public servants so that they themselves become active consumers of information, thus enabling intra agency sharing of data.

Civil Society Level

- Increase awareness of reuse initiatives promoted by civil society. Assist civil society to improve technical awareness and provide training.
- Highlight existing initiatives for greater reuse within civil society. Leverage existing related initiatives such as the one driven by Population Council and the University of Cape Coast and facilitate mutual understanding between civil society needs in terms of information and government release of data.

It is important to strengthen the existing common linkages between civil society and the government. This is highlighted by the Population Council and their action to connect an existing OGD type of initiative with other actors in civil society and research organizations. There is a significant opportunity to connect the pockets of collaboration between the government and civil society, especially since more dialogue and discussion around OGD is required.

As elaborated in the relevant sections of this report, champions exist in all the three layers of the OGD spectrum. Nii Quaynor is engaged in policy formulation as part of NITA and is an Advisor to the President. The Population Council has been pursuing a data catalogue project internally and is willing to share the inputs globally with other organizations. Entrepreneurs like Dream Oval are already creating mobile services for the nascent market.

Highlighted as part of this report, an effective strategy would be to incorporate the opportunities identified in motivating and engaging OGD champions within Ghana, involving all the three layers mentioned above.

Introduction

Over the past few years a paradigm shift has been emerging around how governments work and their use of the Web and ICT to deliver better services to their constituencies. The new approach is known as Open Government. It involves rethinking governance and how administrations should adapt their procedures to meet the demands and necessities of their citizens. Open Government means cultural, organisational, procedural and attitudinal changes in how public servants relate to citizens.

Open Government Data (OGD) is the pillar of an Open Government strategy where ministries and state agencies put their raw data on the Web in readable formats. The public can then review and download the data, and even create new applications around it.

The governments of the United States¹ and United Kingdom² are so far the most prominent practitioners of this new approach, offering both data and information that are usable and freely exploitable by Non Government Organisations (NGOs), activists, developers, IT companies, etc., to build and deliver services to people and organizations.

To date OGD programs have demonstrated *multiple benefits* such as:

- Increased transparency of governments
- Increased number of services to people due to an increased base of potential service providers
- New business opportunities and jobs for application and service developers
- New synergies between government, public administration and civil society organizations
- Increased citizen participation and inclusion through extended offers of services closer to people's needs
- New innovative uses of OGD that can help spur innovation and development in the IT sector.

Given the apparent benefits of OGD programs, it would make sense to consider

¹ US Open Data portal: <http://www.data.gov/>

² UK Open Data portal: <http://data.gov.uk/>

the development of similar programs all over the world, particularly in low and middle-income countries.

The objective of this report is to assess the feasibility of implementing an OGD program in Ghana.

Methodology

The objective of this report is to enable the definition of OGD readiness in the given country based on different levels. These levels have been suggested based on our experiences and the Open Data Study published earlier this year³.

The different levels include political willingness, public administration readiness, and civil society interest and readiness. The steps we followed were:

- a) Desk Research: We conducted extensive desk research in two phases to gather quantitative and qualitative data about the country. As a first step, we analysed the key indicators in the various fields related to OGD. This required analysis of the country's economic, social and political systems, as well as its technological environment.
- b) As part of the second phase of research, we developed a questionnaire (Annexure B) and conducted in-country interviews. The target group comprised people and organization that may be the key to any future success (essential in any OGD initiative). The target group includes representatives of the three layers - top political level, public administration level and civil society level. The main focus was to validate or amend the desk research, identify potential threats and opportunities that may have been inadvertently missed, and identify champions from the three layers who may lead a future OGD initiative. The questionnaire was used as a baseline for conducting the interview; however in majority of the cases, it was a conversation with lots of anecdotal data and some very useful examples of OGD type of activities thrown in by the respondents.
- c) From the desk research and the in-country research, we provide a case for stimulating a discussion for a possible future OGD strategy in the country, and potential interventions/actions that may help in bootstrapping this process.

³ Open Data Study:

http://www.soros.org/initiatives/information/focus/communication/articles_publications/publications/open-data-study-20100519

Project Origins

The project was developed by the Web Foundation⁴ in partnership with CTIC Technological Centre⁵.

In drafting the methodology for this report, the Web Foundation sought the advice of a diverse group of Open Data and Transparency/Accountability experts. The views in this report are the Web Foundation's alone and are not representative of the views of the experts listed below.

Experts Consulted: *Beth Noveck, Tom Steinberg, Jonathan Gray, William Perrin, John Wonderlich, Ethan Zuckerman, Yamini Aiyar, Jay Kruuse, Toby Mendel, Barun Mitra, Ori Okolloh, Tulika Pandey, Fran Perrin, Rakesh Rajani, Vivek Ramkumar, Rajiv Ranjan, Andrew Stott, Nathan Torkington, Janet Haven, Nishant Shah, Pranesh Prakash, Glover Wright and Helen Darbishire.*

⁴ Web Foundation: <http://www.webfoundation.org/>

⁵ CTIC Technological Centre: <http://ct.ctic.es/web/contenidos/en>

Desk Research

As the first step to initiate our research, we undertook a readiness study for the implementation of an OGD project in Ghana. It included the preliminary analysis of a complex set of variables, since such projects require a set of minimal conditions in terms of development level, investment capacity, capacity and/or quality of governance, etc.

We analyzed the key indicators in various fields related to OGD: the country's economic, social and political systems, as well as its technological environment. Below is a summary of the desk research, highlighting the key findings and elements. The in-depth detailed analysis is available in Appendix (A).

Social Context

It is essential to know the quantity and quality of human resources in the country, both as potential data consumers as well as a possible labour force involved in OGD projects. That knowledge is based on the analysis of key issues related to the country's social welfare such as health and education, literacy and availability of appropriate technical human resources to implement and provide support to OGD initiatives.

School and university education has been a thrust area for the government and it reflects in the adult literacy rate of the country, which is approximately 66%. This is at par with other countries in the region. Considering budget allocation as an indicator, it is clear that apart from ensuring that people can read and write, the government is also spending on the secondary education sector to ensure that educational opportunities are available to the younger generation. It indicates that human resources in the country have significantly improved. A detailed overview of the focus areas are placed in Appendix (A).

Economic Context

One of the key parameters of economic and technological progress is the private sector. When defining an OGD strategy, firms are an important stakeholder to consider as they are one of the main producers of services for citizens.

During the last 20 years, Ghana has achieved important advances in terms of economic growth, keeping it on track to meet the Millennium Development goal of halving extreme poverty by 2015. The country's main economic development objectives include improving the quality of life and widespread poverty reduction through private investment, macroeconomic stability and support from the international donor community. The recent discovery of oil reserves has made it

all the more important to understand the impact of economic policies of the government and how civil society will position itself to mitigate the negative effects of extractive industries.

Agriculture still remains the primary economic activity, accounting for over one-third of Ghana's Gross Domestic Product (GDP) with cocoa providing about one-third of Ghana's export revenues. Industrial activity includes the production of textiles, tires, steel, cocoa processing, beverages, tobacco and automobile, truck and bus assembly.

Distribution of wages is an important factor to consider as far as inequality is concerned. In Ghana the top-earning 10% are 16 times richer than the bottom 10% of the population. This figure is half as low in other countries in the region, which indicates that although the country is experiencing economic growth, it must still overcome the challenges of achieving a better distribution of income and increasing growth potential. This may be due to the high proportion of rural population and the wide dispersal of the population across the territory.

Political and Institutional Context

For the general feasibility of an investment project in any given country, and especially for projects where government transparency is the key, as in the case of an OGD project, the quality of the country's institutions has a strong influence on the control of corruption, as well as the existence of control mechanisms for the respect of civil rights and intellectual property.

Ghana has a democratic form of government under its national constitution, and the current president is John Atta Mills, who is also the leader of the National Democratic Congress (NDC) party. When the NDC came to power in 2009, it embarked on pursuing an agenda that aims to harness the free market to boost Ghana's economic development, reduce poverty, protect workers' and human rights, and reduce corruption. In addition, the government announced its intention to review the 1993 Constitution and support decentralization.

Government objectives

On the social and economic front, it is worth highlighting the Ghana-Vision 2020 initiative that was launched in 1996 and sets out a series of objectives in the National Development Framework Plan to turn the country into one with medium revenues. The program's objectives are grouped into five broad strategic areas⁶:

⁶ Ghana Vision 2020. Presidential Report on Coordinated Programme of Economic and Social Development Policies:

- **Human development:** Poverty reduction, increase average earnings and reduce unequal opportunities.
- **Economic growth:** Establish an open, liberal market that ensures maximum material well-being of all Ghanaians.
- **Rural development:** Bearing in mind that around two-thirds of the population live in rural areas, one of the main development objectives is to reduce the disparities in earnings and living standards between urban and rural populations.
- **Urban development:** The main objective is to ensure that small- and medium-sized cities adequately fulfil their role as service centres and that the urbanization process contributes positively to development.
- **A facilitating environment:** The aim is to create a context in which all sectors of the economy can contribute to sustained economic and social development. In this sense, public administration and national legal reforms are foreseen to contribute to development initiatives.

Scientific-Technological Context

For OGD projects, the technological component plays a substantial role, and therefore requires a suitable environment in terms of availability and use of ICT for project development. Moreover, being a project related to an emerging area, an environment of innovation is certainly helpful for its development.

Recent initiatives in this area should produce significant improvements in the next few years, although Ghana still lags way behind leading Sub-Saharan countries like South Africa and Mozambique in terms of innovation. Nevertheless, OGD efforts have been shown to have the potential to drive the development of the innovation economy in the IT sector.

One basic indicator for assessing the reality of ICT development in a country is the proportion of this sector in relation with foreign trade. In Ghana, as in other African countries, ICT imports are clearly superior to exports, which are practically non-existent. It is expected that this phenomenon will reverse if Ghana is capable of globally positioning itself to outsource ICT services, primarily to the UK and the US.

There is practically no difference between e-Government and e-participation development in Ghana in comparison with its neighbours. However, there is still significant room for action in the implementation and use of ICT in the country.

http://chet.org.za/manual/media/files/chet_hernana_docs/Ghana/National/Ghana%20Vision%202020%20-%20First%20Step.pdf

The Legal Regulatory Context that may provide the necessary framework for an OGD initiative is still under development in Ghana.

Right to Information

There has been a strong call for Ghana to enact a Right to Information (RTI) Law⁷ and affirm the public's right to information as a critical means to bolster and promote transparency.

In 2001, civil society organizations led by the Commonwealth Human Rights Initiative with funds from the British Council embarked on a publicity campaign to sensitise the public on the RTI Bill through seminars and workshops to provide an opportunity for further criticism on the bill.

However, major concerns were raised on weak provisions such as those relating to expensive fee structures, penalties, lack of an effective independent enforcement organ and long duration for disclosure of information.

The bill in its current state has seen further reviews made in 2007, 2008 and 2009. Now with a NDC government professing commitment to the passage of the law, it is expected that the bill will receive presidential assent within the shortest possible time.

Privacy Act

The Ghanaian government has recently initiated stakeholder consultation for the passage of Data Protection Bill⁸ (DPB) and Electronic Communications Regulations Bill (ECRB) to serve as legal instruments for the safeguarding of personal data and privacy.

These bills provide for the protection of privacy through the regulation of information processing relating to individuals including the method by which data is obtained, held, used or disclosed. It also sets out the rights and responsibilities of parties involved in the processing of personal data, and it regulates the procedures and processes for institutional operations.

Intellectual Property

On 19th November 2008, Switzerland and Ghana launched a project on

⁷ Ghana: Right to Information Bill: <http://allafrica.com/stories/201006180597.html>

⁸ Data Protection Bill 2010 underway:
<http://www.ghanaweb.com/GhanaHomePage/NewsArchive/artikel.php?ID=189002>

intellectual property rights technical assistance⁹ in Ghana. The project has a duration of three years beginning 1st January 2009.

On 6th July 2010, the Minister for Trade and Industry, Hon. Hannah Tetteh, inaugurated a 13-member National Intellectual Property Policy Committee (NIPPC) including ten representatives to provide strategic guidance to the Swiss-Ghana Intellectual Property Rights project. The committee has to ensure that the project is progressing in the right direction and is in line with development trends in Ghana.

From the political spectrum it is evident that the government has shown resolve to improve the democratic functioning of its institutions and has invested in key areas of governance like infrastructure, information technology, education and health. It is safe to say that the last decade has resulted in considerable development on all fronts.

From the legal perspective, though the Right to Information Act has yet to achieve legal status, there is a commitment to enact it, something that the previous governments have failed to achieve. This is essentially to mollify the feelings of common citizens that corruption is prevalent everywhere. However, from desk research, there is very little evidence of any reuse of information within the three layers.

⁹ Strengthening the Intellectual Property System in Ghana:
<https://www.ige.ch/en/legal-info/international-cooperation/country-specific-projects/ghana.html>

In-country Research

In-country research forms a critical component of this report. The motivation behind this was to ascertain OGD related activities (if any) being undertaken in the country, the role of the government, bureaucrats and civil society in the country and identify champions who could lead or bootstrap such initiatives.

Open Data Study published in April 2010 by B. Hogge finds that a three-tiered drive is crucial to an OGD project success:

- A top-level mandate motivated by either an outside force or a refreshed political administration hungry for change.
- An engaged and well-resourced “middle layer” of skilled government bureaucrats.
- The civil society, and in particular a small and motivated group of “civic hackers.”

Learning from our previous studies, it was apparent that anyone attempting to mirror the successes of the UK and US projects should not neglect any of these three layers of influence.

As Tim Berners-Lee observed, *“It has to start at the top, it has to start in the middle and it has to start at the bottom.”*

Based on this fundamental assertion, we conducted series of interviews with a selection of domain and regional experts. The idea being that for an effective study of the OGD landscape in a country we need to cover all the layers and get their overall impressions about the topics that not only relate to their own domain, but also estimate and understand the linkages with other layers as well.

Persons and Organizations Interviewed

Below is a list of people and organizations interviewed during the field visit in Ghana. The aim of the interviews is to collect opinions on the feasibility of an OGD initiative in the country. As a standard methodology, we classify them according to the three layers.

Top Layer: Organizations/departments/individuals responsible for policy formulation and decision making at the political/administrative level on behalf or for the government.

Dr. Nii Narku Quaynor, Chairman of the Board of NITA and Advisor to the President of Ghana

Dr. Nii Quaynor is a scientist and engineer who played an important role in the introduction and development of the Internet throughout Africa. He is Chairman

of the Ghanaian company, Network Computer Systems, a member of the United Nations Secretary General Advisory Group on ICT, member of the International Telecommunication Union (ITU) Telecom Board, Chair of the OAU Internet Task Force, President of the Internet Society of Ghana, and member of the World Bank Infodev TAP.

Dr. William Ahadzie, Executive Secretary, National Identification Authority, National Information Technology Agency, NIA¹⁰

In 2003, the National Identification Secretariat was set up by the government to implement and manage the National Identification System (NIS). The Act establishing the National Identification Authority (NIA) was passed in 2006. The NIA has a host of logistical items required for institutional building. The Authority has 1,510 Mobile Registration Workstations for the mass registration exercise. NIA has recruited, trained and selected individuals as Mobile Registration Workstation Operators. Dr. William Ahadzie began his appointment as the Executive Secretary in 2009. He is currently preparing to execute mass registration in the Greater Accra Region. He also has been very involved in the process to establish NIS even before inception of the National Identification Authority of Ghana.

Mr. Justice V.C.R.A.C. Crabbe, Commissioner of Statute Law Revision, Attorney General's Department

Justice Vincent Richard Cyril Arthur Charles (V.C.R.A.C.) Crabbe is a former Justice of the Supreme Court of Ghana. He is a Co-Chair of Coalition of Domestic Election Observers (CODEO). He has served as the Chairman of the Constituent Assembly for the drafting of the 1979 Constitution for Ghana, as Parliamentary Counsel and Constitutional Advisor to the Ugandan Government, as Director of the Commonwealth Secretariat Scheme for Legislative Draftsmen for the West, East, Southern and Central Africa Regions and the Caribbean Region, and drafted the Guiding Principles for UNESCO in the field of Education, Scientific and Cultural Exchanges. He has taught at the International Law Development Centre, Rome, Italy, and as Professor of Legislative Drafting, University of West Indies, Cape Hill Campus, Barbados. He is currently Ghana's sole Commissioner for Statute Law Revision.

The CODEO is a federation of thirty-four independent, non-partisan civil society organizations united to safeguard the rights of Ghanaian citizens by promoting free, fair, transparent and peaceful elections. The CODEO has observed every

¹⁰ NIA website: <http://www.niaghana.gov.gh>

election in Ghana since 2000 and is the largest and most respected election observation coalition in Ghana. Under the Co-chairmanship of Justice V.C.R.A.C, Crabbe, and Professor Miranda Greenstreet, a former Director of the University of Ghana's Institute of Adult Education, CODEO has been at the forefront of building and consolidating a credible electoral system in Ghana. Its Secretariat is housed with its founding member, the Centre for Democratic Development, CDD-Ghana.

Middle Layer: Skilled government bureaucrats/agency heads

National IT Agency Ghana (NITA)

- **Mr. Tony Bediako**, Director of Strategy and Architecture, NITA
- **Mr. William Tevie**, Director, NITA
- **Mr. Jonas J. Amoapin**, Ghana Information & Communications Technology Directorate
- **Dr. Narteh**, Ministry of Communications, Ghana.

NITA has been set up to support the Ministry of Communications to ensure the systematic deployment of ICT in the country. It monitors and facilitates the implementation of Ghana's e-Government Platform and Strategy under the e-Ghana Project, which seeks to interconnect all Ministries, Departments and Agencies (MDAs), as well as Metropolitan, Municipal and District Assemblies (MMDAs) to ensure efficiency in the delivery of governance.

Institute of Statistical, Social and Economic Research (ISSER¹¹)

- **Mr. Clement Ahiadeke**, Acting Director

ISSER was established by the University of Ghana in 1962 as the Institute of Statistics, to provide a program of teaching and research in statistics, with particular reference to the methodology, collection and analysis of official statistics. It also advises interested bodies on statistical design, analysis and computer programming. A UN Statistical Training Centre, also established in 1962 to run middle-level Statistical Training Programs for Public Servants in Africa, was brought under the auspices of the Institute in 1966. It was later realized that expanding the scope of the institute to include fundamental and applied research in the social sciences, and to establish the basic data needed for effective development and modernization, would be beneficial to the nation as a whole. It is in line with this vision that the institute was converted, in 1969, into the Institute of Statistical, Social and Economic Research (ISSER). A key

¹¹ Institute of Statistical, Social and Economic Research: <http://www.issr.org>

strength of ISSER is its ability to provide independent assessment and information on various aspects of the socio-economic situation of Ghana, in order to guide policies and decision-making.

National Population Council- Ghana¹²

- **Dr. Andrew Arkutu**

The National Population Council was established by ACT 485 in 1994 as the highest advisory body to the Government of Ghana on all population issues and to ensure proper coordination and implementation of all population policies and programmes.

Civil Society Layer: The civil society/civic hackers/donor agencies/media/ICT companies/entrepreneurs

University Education & Research Institutes

University of Cape Coast

- **Mr. Kofi Awusabo Asare**, Teacher
- **Mrs. Marilyn Aniwa**, Executive Director, Union for African Population Studies (UAPS)

The University of Cape Coast, Ghana, was established in 1962 out of a dire need for highly qualified and skilled manpower in education. It was established to train graduate teachers for 'second cycle' institutions, Teacher Training Colleges and Technical Institutions; a mission that the two Universities existing then were unequipped to fulfil. The University was also given the mandate "to serve the needs of the whole country" and "to play a unique role in national development by identifying national needs and addressing them." The University has since added to its functions the training of educational planners, administrators, agriculturalists and health professionals. The University is thus playing a role that is unique and vital to the education enterprise of the nation.

The Union for African Population Studies (UAPS) is a pan-African non-profit scientific organization that was founded through the initiative of the United Nations Economic Commission for Africa (UNECA) in March 1984, with a view to promote the scientific study of the African population. With a network that includes more than 1,000 members from Africa and beyond, UAPS aims to foster the networking of scientists, policy makers and other stakeholders in order to improve research capacity and promote population policies and programs in Africa.

¹² <http://www.npc.gov.gh>

Ashesi University

- **Mr. Nathan Amanquah**, Teacher
- **Mr. Aleaf Dafla**, Lecturer, Computer Science

Ashesi University is a coeducational institution whose mission is to educate and build leaders of exceptional integrity and professional ability. The University, which began instruction in March 2002 with a class of 30 students, has quickly gained a reputation for innovation and quality education in Ghana. Ashesi is the first university in Ghana to adopt and blend the Liberal Arts method of education with majors in Computer Science, Management Information Systems and Business Administration. The University is an independent, private, not-for-profit institution.

Transparency Organizations

Institute for Democratic Governance (IDEG)

- **Dr. Emmanuel Akwetey**, Executive Director, Institute for Democratic Governance, was recently appointed to the Commonwealth Eminent Persons Group by Commonwealth Secretary-General, Kamalesh Sharma. He has great insight and experience in democracy and development and is the founding Executive Director of IDEG, one of Ghana's leading research and advocacy organizations.
- **Ms. Ruby Quantson**, Capacity Development Officer

IDEG was established in the year 2000 to contribute to the "establishment of a just and free society" in Ghana that is democratic, prosperous, integrated and secure in the West African sub-region and beyond¹³. As a civil society research, advocacy and capacity building institution, IDEG carries out research and analysis of public policies, including monitoring their impact on democracy and good governance.

Ghana Centre for Democratic Development (CDD)¹⁴

- **Mr. E. Kojo Pumpuni Asante**, Head of Programs

Mr. Kojo Asante is qualified to be called to the Bar of England and Wales at the Inns of Court School of Law, London, and was called at Gray's Inn. He is also a member of the Ghanaian Bar and holds an MA in Africana Studies from the State University of New York at Albany. Since joining the Centre in 2005, Mr.

¹³ IDEG website: <http://www.ideg.org>

¹⁴ Ghana Centre for Democratic Development: <http://www.cddghana.org>

Asante has led many of the Centre's comparative and in-country research and advocacy on governance and legal policy issues relating to legal/constitutional reforms, parliamentary strengthening, transparency and accountability, participatory democracy including civil society networking, collaboration and regulation and institution building.

CDD is an independent, nonpartisan and non-profit research-based and policy-oriented think tank based in Accra, Ghana. Founded in 1998, it is dedicated to the promotion of democracy, good governance and the development of a liberal political and economic environment in Ghana, in particular, and Africa in general. CDD-Ghana seeks to enhance the democratic content of public policy and to advance the cause of individual liberty, rule of law, and integrity in public life.

Human Rights Organizations

The Human Rights Advocacy Centre (HRAC)

- **Ms. Nana Oye Lithur**, Human Rights Advocate and Group Leader and Partner at Law Trust Company
- **Ms. Maria Amanor-Akrofi**, Project Officer

The Human Rights Advocacy Centre is a not-for-profit, independent, non-partisan, research-based advocacy organisation set up to advance and protect human rights in Ghana and across the world.

Commonwealth Human Rights Initiative (CHRI)

- **Ms. Caroline Nalule**, Regional Coordinator

The Commonwealth Human Rights Initiative (CHRI) is an independent, non-partisan, international non-governmental organisation, mandated to ensure the practical realization of human rights in the Commonwealth countries. In 1987, several Commonwealth associations founded CHRI because they felt that while the member countries had the benefit of a common set of values, legal framework and a forum within which to promote human rights, there was relatively little focus on human rights issues. CHRI is working to expand the public's knowledge of the Right to Information. It claims to have re-activated the RTI Coalition in 2005 and advocated for the promulgation of the RTI Bill.

Integrated Social Development Centre (ISODEC) & Publish What You Pay

- **Ms. Ruby Quantson**
- **Mohammad Amin Adam**

ISODEC is an indigenous non-governmental organization committed to the promotion of human rights (especially social and economic rights) and social justice for all, especially those suffering marginalisation, injustice and powerlessness. The organization was formed by a group of young men and women who served their national service under the National Service Scheme in the early 1980s but did not have a mechanism to continue to be of service to urban and rural poor communities.

ISODEC, formed in 1987, has a long history of support to grassroots groups in Ghana. From a peri-urban health and sanitation, basic education base, it grew into a formidable force in rural water and sanitation delivery. ISODEC also provides services in the areas of girl child education, family reproductive health and national budget analysis programs.

TAI Ghana

- **Mr. Nicholas**, Executive Director, Transparency and Accountability Initiative Ghana

Media Organizations

Ghana Journalists Association (GJA)

- **Mr. Ransford Tetteh**, President Ghana Journalists Association, Editor Daily Graphic

Graphic Communications Group Limited (GCGL) is the leading and largest newspaper publishing and printing company in Ghana. It aims to improve lives through quality information and knowledge dissemination. The company was established in 1950 as the West Africa Graphic Limited by the Daily Mirror Group of newspapers in the United Kingdom headed by Cecil King.

In 1962, the Government of Ghana acquired the company, which was subsequently incorporated in 1965 as a statutory corporation and was converted into an autonomous limited liability company. It has since then distinguished itself as a credible organization in quality news presentation, to the extent that its flagship newspaper, the Daily Graphic, has become synonymous with the word newspaper in Ghana.

The company's journalists have won the Journalist of the Year Award, the most prestigious of the Ghana Journalists Association annual honours list more times than any other media organization in Ghana. It is part of the RTI Coalition.

Media Foundation for West Africa (MFWA¹⁵)

- **Prof. Kwame Karikari**, Executive Director

MFWA aims to increase public awareness and to redress violations of media rights and free expression by monitoring abuses and attacks. It seeks to promote the development and expansion of media rights and free expression through legislative and policy reforms. It also seeks justice through litigation for journalists, media and citizens persecuted by the state and other actors for exercising their right to free expression.

MFWA advocates strengthening media professional standards to enhance their capacity to support democratic governance and culture. It promotes knowledge and awareness among citizens about their rights to free expression through research and publication of data, information and analysis on developments, trends and issues regarding policy, legislation and other matters affecting media and free expression.

Action Research Organizations

World Education Ghana¹⁶

- **Ms. Tawiah Agyarko Kwarteng**, Team Leader

World Education Ghana is a field office of World Education, Inc., a non-profit organization based in Boston, Massachusetts, USA. World Education first worked in Ghana in the mid-1970s. World Education Ghana is recognized for its quality and innovative HIV prevention programs in educational institutions, as well as for its capacity building efforts in government, NGOs and communities. It also engages with the local district administration for most of their projects unlike other advocacy organizations and works directly with the community.

Population Council

- **Dr. L. Placide Tapsoba**, Senior Associate and Director
- **Dr. Y. Abisola Noah**, Bixby Research Fellow, Reproductive Health Program

In 1993, the Population Council¹⁷, in partnership with Ghana's Ministry of Health, launched an experimental program at the Navrongo Health Research

¹⁵ Media Foundation website: <http://www.mediafound.org>

¹⁶ World Education Ghana: <http://www.worlded.org>

¹⁷ Population Council: <http://www.popcouncil.org>

Centre to determine the demographic and health impact of deploying health-service nurses and volunteers to village locations. Since 2004, the Council has been providing technical assistance to the Ghana Health Service (GHS) in expanding the Navrongo model on a national level.

With support from the United States Agency for International Development (USAID), the Navrongo model, called Community-based Health Planning and Services (CHPS), is currently being implemented in 30 districts by the GHS with technical assistance from the Population Council and the project consortium members.

The Population Council recognizes that data access, use, and demand operate in a virtuous circle—the more that data are used, the greater the demand will be for more data. And as demand grows so will the extent of data access and use. Therefore, the Council has begun implementing a project in Ghana, Senegal, and Namibia called *Demographic Data for Development* that is designed to foster domestic demand for data by improving data access and use among a natural constituency for development data—journalists.

Entrepreneurs, ICT companies & Civic Hackers

International Institute of ICT Journalism (PenPlusBytes)

- **Mr. Jeremiah Sam**
- **Mr. Kofi Mangesi**

International Institute for ICT Journalism (PenPlusBytes) is a registered company that seeks to empower the media through the use of ICTs to advance the cause of journalism. It consists of a network of media organizations and journalists. They have trained many journalists from various parts of Africa and across the globe in cutting edge new media technologies and contemporary ICT issues.

DreamOval Limited

- **Mr. Derrydean Daadzie, CEO**

DreamOval¹⁸ is a software development company that was founded by a group of Ashesi alumni in 2007. It has a mission to provide the essential platform for e-Business solutions to enhance business activities in Africa and also globally.

Donor Agencies

¹⁸ DreamOval: <http://www.dreamoval.com>

The World Bank

- **Mr. Kafu Kofi Tsikata**, Senior Communication Specialist
- **Mr. Michael Kottoh**
- **Dr. Amos Anyimadu** is a Political Scientist. He holds a Ph.D. in Political Theory and Institutions from Flinders University and B.A. (First Class) in Political Science with Sociology from the University of Ghana. He is also engaged in studying policy processes in Developing Countries and the epistemology of science.

He is a Lecturer at the Department of Political Science, University of Ghana, and also a Scientific Coordinator of the Technology Assessment Project, University of Ghana and Technical University of Denmark¹⁹; Convenor of AfricaTalks.org²⁰; Founding and current List Editor of H-Afrpol, the H-Net²¹ and, in an adjunct capacity, Associate Director of African Security Dialogue and Research²².

The World Bank and the International Monetary Fund (IMF) announced a total of more than US\$1.5 billion of new fund injections around mid-2009 for Ghana. According to the World Bank, Development Partners (DPs) have substantially increased their levels of budget support to approximately 30% of assistance. With the government of Ghana stating that the budget support is its preferred aid modality, almost all DPs have responded by increasing their levels of budget support, both sectoral and general, since 2007.

According to the World Bank, progress as a result of World Bank assistance and engagement in Ghana has been largely positive, with notable advances in agricultural crop production, natural resources governance, land management, household electrification, ICT, primary education completion, social protection, and safe water supply. Weaker progress was registered in private sector development, transport, health, and public sector.

Overall, out of a total of the 28 indicators selected to measure progress towards achieving the Country Assistance Strategy (CAS) objectives, approximately 70% show good progress, with 36% percent of the indicators having already reached their target. The IT and IT Enabled Services sector (ITES) have benefitted from the telecom boom as well as from the creation of dedicated

¹⁹ Technical University of Denmark: <http://TapLegon.cti.dtu.dk>

²⁰ AfricaTalks.org: <http://www.AfricaTalks.org>

²¹ H-Net: <http://www.h-net.msu.edu>

²² African Security Dialogue and Research: <http://www.AfricanSecurity.org>

support institutions, both public and private, and Ghana has been rated for two years in a row as the most competitive ITES destination in Africa.

The eGhana project is contributing to these achievements by supporting critical applications, skills development, and regulatory institutions like NITA.

Interview Disclosures

Here we present the impressions of key people and organizations on several OGD related topics through interviews conducted during the country visit. For consistency, the information is categorized along the lines of the three layer model described in the methodology wherever possible. Additionally, other related factors are also presented as part of the interview disclosures.

Democracy and Government

Government forms the top layer of the OGD model. By its very nature, an OGD project is linked to the political and institutional structure. The quality of the country's institutions has a strong influence on the control of corruption, as well as the existence of control mechanisms for the respect of civil rights and intellectual property. That is why we began analysing the respondents' opinion about the democratic situation in the country and the transparency of its governing bodies. It is critical to give adequate attention to details on aspects such as transparency and corruption, legislation, data collection practices, importance of ICT development and attitude towards OGD initiative from the government's view point.

Most people we interviewed had a sense of pride when describing the transition from the early 90's revolution to the current stable democracy. There is now a strong democratic feeling amongst citizens and, as the President of the Ghana Journalist Association says, they are willing to participate.

Civil society in Ghana reflects a sense of respect for the democratic system that is firmly entrenched. There is respect for the political process, if not for the politicians themselves due to corruption. Voting systems are not an issue, they are free and fair and apparently there is no major problem in the overall election system.

According to Caroline Nalule, Commonwealth Human Rights Initiative (CHRI), Ghana wants to be an exemplary democracy, but for that its endeavours must go beyond multi-partisanship and conducting free elections. Further work towards a clearer policy on human rights and policies is needed. As Kofi Awusabo Asare (Teacher, University of Cape Coast) and Marilyn Aniwa

(Executive Director, UAPS) said, the current problem is that human and legal rights are protected, but not often respected.

As a very strong voice of the top judicial layer in the government, Justice Crabbe is of the view that institutions face a lot of pressure when democracy is not well enshrined. Remnants of the previous era still prevail in the overall mind-set of the people, as they feel that human rights can be violated and they would be unable to seek adequate redress. The proliferation of social media is encouraging a counterbalancing resonance, with politicians wanting now to adhere to democratic norms.

Dr. Amos Anyimadu and other officials from the World Bank think that people are really proud to vote and that there are regular changes in the parties in power. In their opinion, Ghana has one of the top positions in the continent when it comes to democracy.

In the opinion of Dr. L. Placide Tapsoba and Dr. Y. Abisola Noah (of the Population Council), decentralization creates pressure and accountability at the local level. Tawia Agyarko Kwarteng (World Education Ghana) and Dr. Andrew Arkutu (National Population Council) remark that politicians want to be viewed as more transparent and this is why the government is not afraid of sharing information with the citizens.

Transparency and Corruption

There was absolute unison in the respondents' view of the prevalence and evidence of corruption in the society and government. An interesting observation being that corruption is rampant; from the airport to the minister, from the smallest individual to the highest ranking one, from the policemen to the bureaucrat. However, they were also of the view that the level of corruption in Ghana was average compared to other countries in Africa.

On the positive side, it was commented that democracy and the decentralization process could help to create favourable conditions that could introduce accountability and reduce corruption.

Respondents were also of the view that even the media was corrupt despite the absolute freedom it enjoys under the democratic set-up. Corruption in the print media was often cited. The legal framework is currently unable to stem the tide of corruption because many government officials are part of the cycle.

Corruption may also be a significant obstacle in allowing the passage of the RTI Bill by Parliament; nevertheless, the top political leadership is in favour of change.

A few of the respondents gave an interesting insight about corruption being prevalent at the district level because of lack of audit and control and also due to paucity of accountants to audit government programs. Hence, at the grassroots level corruption is mainly due to the fact that "no one is looking" and it is easy to siphon off funds. OGD can play a significant role in resolving these problems at the grassroots level.

Legislation

Civil society needs to have a minimum set of rights for an OGD project to succeed. A citizen cannot discuss or complain about a certain issue unless they have access to the minimum amount of information required to have an informed opinion on the subject. Likewise, a private company cannot be confident enough to build a commercial product based on OGD if it is not aware of the relevant licensing and copyright restrictions that may be applicable.

Our purpose here is then to understand the legal framework in a given country and see whether it has the minimum features to be considered OGD-ready. It can also provide an opportunity for the bottom layer to collaborate across sectors and provide capacity building offerings to the top and middle layer.

Right to Information

The RTI Bill in Ghana is still awaiting ratification by Parliament. It has been under consideration since 2001, but according to Justice Crabbe, Dr. Amos Anyimadu, and many others, the previous government and the present one are really committed to pass it as soon as possible.

On the other hand, several voices such as Kwame Karikari, Emmanuel Kojo Asante, Caroline Nalule and Nana Oye Lithur have raised the issue that there is some political resistance and lots of exceptions that will make the RTI completely redundant. They were also concerned that passing it in the current format without necessary updates may be harmful. Some respondents from the government were of the opinion that it should be extended to include the electronic media. In the opinion of Jeremiah Sam and Kofi Mangesi, although the Bill can help freeing up some information, cultural issues and a fixed mind-set are challenges and real change will only come in the long term.

There is also a general discomfort over the choice of the Attorney General's office as the nodal agency where normal day-to-day work itself is very slow and may impact the already long queue of cases pending within the office.

One positive development is that journalists are active and there is some

pressure from the media so, when the law is passed, they will ask for information and will complain publicly if they are not able to get it. Another key question according to Kwame Karikari and Emmanuel Kojo Asante was the implementation aspect, since the law is only the first step.

Emmanuel also commented that there existed some kind of political compulsion pushing for the proactive release of information, and there are some early indications of pilot implementations in some ministries. He was of the opinion that OGD could harmonise such early initiatives or pilot projects including the work of various ministries and make it easier for proactive release of information.

Other Related Legislation

There was total unanimity that there exists no legislation related to reuse of information obtained from the public sector. Kofi Awusabo Asare and Marilyn Aniwa said there are some ad-hoc processes for getting the data, but often it is easier to obtain data from an organization based in the US (like measuredhs.org) rather than from local government agencies.

Regarding protection of privacy, the situation is also unclear. However, Justice Crabbe and the Ministry of Communications along with officials from NITA are working towards creating a draft bill related to privacy protection. They have held meetings in this regard during September 2010 and hope to table the bill in Parliament soon.

Justice Crabbe and Nii Quaynor also clarify that the RTI Act itself has provisions for data protection derived from the UK version, but that they have been drafted *by lawyers for lawyers*.

There was also unanimity about the absence of licensing and copyright framework. A few government officials, like Dr. Narteh in the Ministry of Communications, feel that government data and ICT-related work should be open source and not restricted by copyright or licenses. There is no evidence of exclusive agreements and a national authority enforcing such a law.

Importance of ICT to Government

Many have voiced the fact that the government has placed high priority on the ICT sector and in its liberalization. It is also committed to the use of ICT within the government and also acting as a catalyst to support the IT industry as a whole in the private sector as well. Therefore, the country has seen a considerable ICT growth in the private sector.

In the words of Nii Quaynor, the government understands the importance of IT and this is why they have launched NITA as a follow-up of GICETD, the previous national IT agency, to coordinate the entire IT aspect within the government as well as in the rest of the country. Other relevant projects are e-Ghana²³, funded by the World Bank, or the collaboration with other neighbouring countries to build a research network called GANET (Ghana Academic NETwork).

According to Kofi Awusabo Asare and Marilyn Aniwa, some agencies are already collecting data in reusable electronic formats and making them available on request. This includes GSS (Ghana Statistical Service), GHS (Ghana Health Service) and NHIS (National Health Insurance Service).

Another practical example is the case of Justice Crabbe, who has been championing the use of ICT's in legal systems for a very long time.

On the other hand, the civil society perspective looks quite different, as several of the interviewees think that government wants to use the new technologies, but they only talk about IT. The majority of parliamentarians are ICT illiterate; therefore they are not pushing for ICT. There is a resource and capacity crunch, absence of focus and proper planning, and though there are lots of initiatives, there is no real evidence of their success from the civil society perspective.

e-Government Services

Citizens feel that there are no electronic government services in the country. Only a few forms are available online for download and electronic processing does not exist.

The main reason for this is that there are no government-to-citizen services running on a national scale, with the exception of the National Identification Authority or the e-passport project, which suffer from massive problems of scale. However NITA officials point out that they have recently received funding under the e-Ghana initiative to kick-start electronic government services and the first set of such services will be in place by the second quarter of 2011.

NITA is the nodal agency responsible for web presence and is in the process of supporting individual departments in their online endeavours. Most government agencies are supposed to have websites but even key ministries like the

²³ eGhana Project Description:
<http://www.moc.gov.gh/modules.php?op=modload&name=News&file=article&sid=58&mode=thead&order=0&thold=0>

Ministry of Education has not had a functional website for the past five months.

Government Interoperability Framework

There is no evidence of such a framework at the government level. According to officials at NITA, the e-Ghana project, which is currently in static mode, has held workshops and are expected to come out with a policy document soon that would define interoperability framework at the government level, with the intention being to have it based on open standards. The various ministries and agencies are aware of this need and want to share data on a common platform. However such a framework or platform does not exist yet and more support is required.

Government Data Collection

OGD advocates have reiterated many times that if data is not made available in the electronic format, an OGD project cannot be started. The more proactive the government is in offering information, and the easier it is to access that information, the better it is. That is why we spoke with interviewees about the current level of cataloguing of information within the government, as well as about the quality of information available and the existing facility for reuse.

As Kofi Awusabo Asare and Marilyn Aniwa say, lots of ministries and related agencies are collecting data, for example, GSS for demographic and health information, education ministry, health ministry, the ministry of rural development and the local governments. Almost all respondents agree to the fact that most data is collected in paper form and then processed to convert it into some electronic format. There is a lack of funding and support for direct electronic data collection.

Data is preserved in raw format but not usually shared, and when that happens it is released on paper. According to William Tevie and Jonas Amoapim, one of the best data set available about consumers is the DVLA (Driver License Authority). From speaking with Dr. L. Placide Tapsoba and Dr. Y. Abisola Noah, it looks like data collection is also highly dependent on ministries. GSS and Health, for example, are collecting data systematically in a timely fashion and in a digital format. Data is collected through online systems at the district level - District Health Management Information System (DHMIS) and then consolidated at the global level Center for Health Information Management.

Quality of Data

There is a general sense of confusion regarding the quality of data with each subset claiming that its data is the best. Government departments believe that they have the best set of primary data collected on the ground. The NGOs counter this claim by providing evidence that the data is not only incorrect but also outdated.

The external perception is that quality of data is usually questionable and there is no proper validation process in place. There is no focus on providing raw data, but only processed data, whereas people like Asare ask for raw data. When data is available in electronic format it is usually in the form of spreadsheets, or more frequently PDF format, requiring lots of extraction work.

There is no central database, but the government is working towards data centralisation. Several organizations are also doing their own data collection (NGOs, universities, etc.), but they do not share it.

There is no process to make data available in a timely fashion. Written requests as in the case of ISSER can be pending for more than six months and it usually depends on the data seeker to push the case. In certain cases like ISSER's cocoa report, the data is never made public; it is the same for the memorandum of understanding (MOU) between oil companies and the government where ISODEC is leading the initiative to make them publicly available on government websites.

Ease of Data Reuse

Most of the interviewees are not aware that they can access data or even if it really exists freely. They feel that even getting basic information is currently a problem, and the situation is not going to improve until the RTI Bill is passed by the Parliament.

NITA is the only agency working on open standards and that is still a work in progress. There is no further evidence of agencies and public bodies having a single access point to data or to inter agency sharing. The situation is further compounded at the district level where multiple data sets exist without proper audit and authentication.

An additional problem is data format. PDF and spreadsheets require huge extraction work and still remain difficult to reuse. The new interoperability framework will help to improve this situation, as it includes the usage of open data, but it is not implemented yet.

It is interesting to note that precisely due to this paucity of data reuse, some civil

society organizations, like the Population Council, initiated projects (e.g. catalogue of data sets) on their own and are willing to broaden the scope of such initiatives if other organizations are interested and willing to participate.

Government Disposition Towards an OGD Initiative

A national government is a large organization and it has many challenges to face: mission, strategy, communication, capability, etc. There might be no or low interest to face all these challenges at the public bodies or government level.

The perception from civil society is that there is no real culture of open sharing within the government and that “they only talk about it”. There is no evidence of serious movements internally. Politicians are really afraid to release sensitive data because they fear that when they are in power they will be unnecessarily exposed to scrutiny, such as budget expenditure or oil contracts related information. However they might agree to release non-sensitive ones such as census information, accidents, etc.

However, the perspective from the government is quite different. They are apparently not afraid of sharing data. Ministers want the data to be freely available to the citizens and the President himself is taking many efforts to enable this. There are also potential internal champions that currently understand the importance of a possible OGD strategy, such as Vice-President John Dramani Mahama, who is a supporter of technology, Communications Minister Haruna Iddrisu, and Justice Crabbe.

Other international champions, such as Tim Berners-Lee, President Obama or Jeffrey Sachs could be instrumental to get the government moving, and there is also some pressure coming from the donors’ community, such as the World Bank, the European Union and the Department for International Development.

From the disclosures above, we can infer that the role of international and local champions will be critical in bootstrapping OGD initiatives from the top. At the government level, there are local champions like the Communications Minister Haruna Iddrisu and NITA Chairman Nii Quaynor, who can take a lead from an institutional perspective. They need active support from the legislature for adequate legal framework support and are also ably supported by civil society organizations.

Middle Layer Disposition

According to several respondents, the government middle layer is relatively reluctant to facilitate OGD for now, and they do not have the required means and capacity to make it possible, as there is no framework they can use to deliver information. The common belief is that what is not authorized in writing

or law is secret. It is also widely thought that friendship with key officials is the only basis for release of data, and sometimes money is exchanged for the release of information.

Another general perception is that government officials are also constrained in releasing of information by the oath of secrecy that they have to take. They do not want to give away information as it may lead to trouble for them later. There is also fear about the possibility of released data hurting public administration. Civil servants want to participate in the freedom in the information domain but want to clean their house first before transparency comes in.

Nevertheless, there is some predisposition to the openness of data from the government. They are open to sharing information and might be happy with non-sensitive data such as Geographic Information System (GIS), census, weather forecast, etc.

The overall view is that transparency may be easier when technical people are in power rather than civil servants or politicians. For instance, GHS and GSS are implementing ministry policies outside the political spectrum and they understand the value of their data and how third parties can use them.

One important additional problem is that there is no central database for sharing information. Recently new funding has been allocated for creating websites to share data, and NITA could start a data.gov.gh project to collect data that has already been made public.

Management Structure for Open Data

From the desk research it was not apparent if there was a management structure in place for OGD initiatives. However based on in-country research it came out strongly that government agencies are already in place to handle OGD initiatives. The Ministry of Communication has set up NITA as the nodal IT agency of the country. It already has an internal mandate to link various government offices and also provide e-governance services. In such a scenario there is no special regulatory body required to handle OGD activities separately and there exists synergy within various government ministries and agencies to effectively implement OGD initiatives. NITA can take the lead in formulating data.gov.gh project and act as the nodal agency for Open Data in the near future and spearhead the movement.

The future RTI Act will create the Chief Information Officer (CIO) position at the agencies level. The criticality of the role of a CIO will require careful analysis. In any case, CIOs in OGD initiatives usually have a critical role as coordinators of their agencies as well as being a driving force.

ICT Development Level and Evolution

OGD projects have an important technology component, and therefore require a suitable environment in terms of availability and use of ICT to serve as a basis for project development. There has been a significant level of development when it comes to ICT infrastructure, but it still remains a challenge and the same holds true with capacity building.

The use of mobile phones is spread across the country irrespective of the socio-economic divide. Access to data connections including 3G services is increasing. Nevertheless, Short Message Service (SMS) still rules for mobile phones applications and there are several developers and companies in the mobile services sector. Data services are still expensive but also getting more affordable with increasing competition.

Computers are being widely used, even though electricity is not reliable. Internet connectivity is prevalent, but access costs are still high, so people use the Internet only in urban areas.

Things are also improving within the government network; they are now focusing on providing district level broadband. However many issues remain regarding privatisation of the national entity. The private sector is also strong, especially the financial sector, which has exceptional use of ICT.

The younger generation is tech savvy and switched on; thus they constitute the most active users of ICT. There might be big opportunities for advocacy and data access for them. No activists are using the technology yet, but they are linked to external civil society organizations.

Internet Connectivity Level

Most workplaces now have computers. The costs of access are decreasing and data services are increasing. Broadband and 3G services are being rolled out by telecom companies and there is healthy competition amongst the providers resulting in an obvious advantage to the consumer. Reliability remains a problem. There are no apparent restrictions on the use of Internet and its penetration is expanding rapidly, but it is still limited to urban areas only.

NITA is planning to link up government offices via WiMAX in the near future and it is expected that by 2011 all local district offices will be broadband-enabled. Broadband connections are available and the costs are decreasing due to competition.

Mobile Penetration

Respondents were unanimous in stating that mobile services are accessible across the country and it is the most widely available platform. Almost everyone has a phone. There are more than 17 million mobile phone users according to the latest data available; people use voice and SMS services to a great extent. 3G and data services are also available, but they are still too expensive for the average user. The use of social networking services like Facebook is also on the rise, especially among the younger generation.

There is apparently no digital divide or barrier to access mobile services and literacy issues are not affecting mobile use. There are huge opportunities for openness and democracy in mobile, as it is reaching everybody, even farmers or the older generation.

Capacity for Innovation

As OGD projects are considered an emerging area, it is important to consider the existence of an innovation-friendly environment.

There are a lot of human resources in the country, particularly young people, who constitute a market surplus of qualified ICT workforce; however, quality remains an issue. There has been a significant amount of repatriation of internationally trained and educated youth from overseas and they have set up a few companies. However, it is still tough to get even basic IT support services locally. It is a question of skill and capacity building at every level; national IT institutions to educate and train local people are the need of the hour.

Most of the ICT skill is imported -- overseas companies generally secure major government contracts and any research is outsourced. Companies are yet to invest in ICT research and there is no evidence of export of ICT service apart from service-oriented call centres. According to a local entrepreneur in the mobile space, the procurement framework works against them and even smaller projects are hard to come by. They feel that innovation can be fostered if they are able to survive and then innovate, and OGD could help spur the innovation sector.

User Base for Data Consumption

Equally important to making the data publicly available is to have a potential basis for the reuse of such information. If the civil society, including citizens, media, business, etc., is not prepared to receive, analyse and exploit the information received, then the OGD initiative may not emerge successful.

There is unanimity amongst the respondents that the initial users of OGD would

be students, journalists, law professionals, NGOs, donors, probably some entrepreneurs and definitely the government itself. The common citizens are probably still not sensitive enough to this fact and there is a need for capacity building to understand data, as well as for information suppliers to help them understand users' interests and needs. Once this is done and the RTI Act is in place, a reuse market will be generated.

Population Council organised a workshop on 9th September 2010 to network producers and consumers of data for a better dialogue and mutual understanding. There were lots of requests from different organizations and agencies like NHIS, ISODEC, Institute for Democratic Governance, Institute for Economic Affairs, etc.

Education and Literacy Level

The Ministry of Education has made significant efforts to improve the level of literacy and education in the country. However adult literacy is still not high and written content is a barrier, although the rates are improving.

Though most of the respondents feel that they have a good educational structure, the practical or vocational aspects are missing from the curriculum. Private universities, like Ashesi, have begun to focus on practical vocational aspects and it is reflecting in the alumni of such institutions.

There are technical training centres like the National Institute for Information Technology (NIIT) that provides ICT-related education. Standard industry certifications like Cisco Certified Network Associate (CCNA) are available via such centres and even the universities. However most of the ICT officials in the government recognize the lack of qualified people in several areas and express the need for national IT institutes and a more hands-on approach with regard to quality technical education.

Initiatives from the Civil Society

Though there is no real evidence of reuse initiatives from the civil society on a large scale, there are initiatives in place led by organizations such as the Population Council and civic hackers, like Derrydean, who are entrepreneurs looking for the creation of services from which they can generate revenue.

The Population Council has invested substantial resources in creating a national catalogue of data sets that can meet the yet unmet demand of other civil society organizations. They believe that students and researchers could also constitute this work, but would need more training on how to use access

and release the information. The logic behind Populations Council's approach is that the civil society collects lot of data but is restricted to internal use only. There is no organized technology-led social group and no Public Sector Information (PSI) Association of private companies that can tap into this data. Hence the Population Council is driving an initiative around how to share data online and reuse it.

Media Sector

The one consistent answer is that the media in Ghana is free but it is also mostly focused on sensational information, and not education, investigation, etc. Some feel that it is *too free* and needs some regulation.

Traditionally the radio has been the most popular means of communication, which has now been enhanced with new levels of interactivity that the use of mobile phones has introduced in the community. Print media is free and enjoys legal protection from persecution if discovered being critical of the government. The press has created a pressure group led by leading print journalists under the Ghana Journalists Association.

The general opinion is that media is the biggest champion for use of data; however there are abundant references to instances where media indulges in blackmail and other unethical practices, so some sort of self-regulation is deemed required to introduce checks and balances on unfair activity. There are a few advance papers, such as the Daily Graphic, that understand data and how to use it but, in general terms, civil society feels that media needs to make better use of technology, training and capacity building to contribute to the RTI Bill in a positive way.

Donors

The general opinion is that there are lots of donors requesting data, but not sharing or opening their own. They have usually better access to government data due to the funding they are providing. Respondents were aware of the World Bank, the International Monetary Fund, the European Commission, Danish International Development Agency (DANIDA), International Development Research Centre (IDRC), Department for International Development (DFID) or USAID amongst others, who can play a big role in RTI. World Bank can put pressure on the government, as it openly supports RTI coalition and releases its own data openly on its website. They also make sure that disclosure of information is happening in every agreement they sign, with particular focus on oil and gas activities.

Comparison of Desk Research and In-Country Interviews

If we compare the interview disclosures to the desk research (see Appendix A) one can arrive at a conclusion that may reflect a slight disconnect between the two. However it is important to note here that one of the key elements of the second phase of research in the country was exactly this – to identify the opportunities and champions those exist locally, and can act as catalyst to OGD initiatives.

In the final conclusions we discuss these opportunities and catalysts in detail. It is important to note that the interview disclosures reflect a clear aspiration of people to be associated with OGD initiatives in their own respective domains and how it may benefit their work and society in general. Though it may not reflect the best fit when compared with the data available in desk research, it still makes a compelling case to gather forces across layers and invest resources in these champions who in turn will lead the OGD movement in the country.

There is a definite demand to share and reuse data from the civil society. Media agencies also support OGD initiatives and are very proactive in seeking out data for their day-to-day work. Political will is evident in their pursuit to finally enact the Right to Information Bill that has been undergoing iterations for the past nine years. This legal bottleneck is holding back OGD initiatives in a structured form but still there is evidence of interest from government agencies like NITA to act as the glue between government, ministries and civil society.

Final Conclusions

Here we present the final results of the assessment – potential challenges and threats for an OGD project as well as groups of key actors in the implementation of an OGD project that can lead it to success. We answer key questions about the country offering a profile that makes the launch of an OGD initiative relevant.

Is the Country OGD Ready?

This broad question cannot be answered in isolation, but by considering a host of parameters that we have discussed throughout this report. We analyse the country strengths and dwell upon the key barriers that need to be addressed. We suggest a set of interventions that need to be engaged in, to overcome the barriers. Finally we analyze the current & future public agenda in the country that may impact the launch of OGD interventions and introduce the key people and organizations that can play a major role in the success of an OGD initiative in Ghana.

We analyse this based on the individual actors in the OGD value chain:

Government

In terms of democracy, Ghana is one of the top few countries in Africa. There is no apparent lack of respect for the democratic set-up, though there seems to be a trust deficit with respect to the politicians, either in power or in the opposition. This stems from the fact that there is universal acknowledgement and evidence of corruption and related problems in the country that are not limited just to the government offices, but also evident in the operations of the media. Corruption starts from the first port of call and carries over to almost every level in the government. People believe that even the normal service fee or facilitation fee is part of corruption and this is due to a serious deficiency in the capacity building initiatives within the government ministries. There is also a general lack of audit of accounts and publicly available information related to financial matters.

Nevertheless, civil society is very active in highlighting these issues and has become more vocal ever since oil reserves have been found on a substantially large scale in Ghana. They believe that this is the right opportunity for OGD initiatives that will not only improve the perception of a clean government in the minds of ordinary citizens, but would also strengthen the overall notion of a strong and transparent democracy. It would give them the right set of legal and technical knowledge to avoid the “oil curse”, which they are keen to avoid at any cost. OGD initiatives would have a great impact on making government

accounts available online and reduce the massive scale of corruption at the district and ministry level. Overall the citizens feel that Ghana is not as corrupt as other African countries and gives it an average rating in terms of corruption in offices. OGD initiatives would give them and the civil society, the right set of tools to translate this feeling into substantive action supported by data.

Legislation

The required regulatory framework for an Open Data strategy is not currently present in the law, but is a work in progress. The RTI Act has been discussed since 2000 and its approval is imminent. However it has taken many years of study and the current draft has provisions for a number of exceptions. This has created friction in its smooth passage resulting in a number of revisions and subsequent delay. The RTI Act cannot exist in isolation and requires a supporting legal framework of data privacy and intellectual property. This work is still in its early stages and further advances can be expected in the short or medium term only if the RTI Act sees the light of day.

It is encouraging to note that, for the first time in Ghana's history, the current government has decided to make RTI a part of its election manifesto, but is slow in pushing it through as they are not sure about the implementation aspects. They also acknowledge that there is a significant issue of capacity and funds that they need to address. The Bill is now under review and a select committee is in the process of gathering comments and opinions of the local community beyond the capital city of Accra, indicating a more inclusive process of decision-making. It is likely that the Bill would be enacted by law in the next session of Parliament. There is common understanding across layers that OGD provides a unique opportunity to implement proactive disclosure of data under the RTI Act.

Civil Society

The civil society and the media are very dynamic in Ghana. The RTI coalition is an umbrella group of civil society organizations that is supported by international organizations like the World Bank. As stated earlier, since coming into power the government tried to push the RTI Act forward with lot of exceptions. However the coalition in Ghana stepped in and challenged the government with the intention of forcing it to rethink on the several exceptions included in the draft bill. This indicates that the environment for a healthy debate now exists in Ghana that can be better supported by OGD initiatives.

The Population Council is running a study in few countries, including Ghana, about the availability of demographic data and its use by third parties like journalists. They state that a significant amount of data is already available in

the public domain and probably the consumers are not really aware of this. Hence they are now moving forward into an OGD type of initiative developing a national data catalogue using open source tools developed by Sunlight Foundation. They would subsequently populate the catalogue with datasets they are aware of, e.g. Ghana specific data from the World Bank, and then conduct competitions for developing applications using this data.

Similarly another important sector where the civil society is actively engaged is the oil sector. Due to a universal acknowledgement of avoiding the oil curse at any cost, ISODEC and others have formed a coalition. Publish What You Pay–Ghana is a coalition of 16 Ghanaian civil society organizations, including organized labour, faith-based, media representatives and community-based groups campaigning for transparency and accountability in the management of the country's natural resources and the revenues accruing to the state from their exploitation. It is affiliated to both the Africa Regional and the global Publish What You Pay campaign initiatives.

The above (and many other) set of actors represent a fragmented subset of active consumers of data. They are not connected to a trusted and reliable data source that can provide them thematic information and data sets related to their work. There is no central repository at the government end that can link them up with open data. However due to the nature of their own work they do end up sourcing such data that can be a critical OGD project itself.

ICT and Government

The government of Ghana has initiated key steps in strengthening the ICT infrastructure and the service delivery model. The most cited e-Ghana initiative, with funding support from the World Bank and China, is hailed as the flagship e-governance project. A common voice is that it is apparently in static mode. The Ministry of Communications is the government department responsible for policy and implementation related to ICT. Respective government departments have their own websites but there remains a lot of scope for improvement when it comes to individual departments having their websites regularly updated with relevant and useful information.

NITA is putting in place the components of e-Ghana project that plans to support individual ministries to launch their websites based on common standards for information exchange. The present situation is fluid and represents a transition phase, where NITA, after getting adequate funds, has kick-started the process of implementation and the first set of services would be rolled out by the second quarter of 2011. The National Identification Authority, which is the nodal Agency for providing identity cards to the citizens, has excellent IT resources and

infrastructure. It is a successful project and can act as a guide for other e-governance projects.

Nii Quaynor, in his capacity as the chairman of the board of NITA acknowledges the challenges and is committed to the concept of making the agency the data centre for the country. He supports the relatively new team at NITA by using his own experience as well as his connections with the industry. This implies that the leadership is in place and committed to implementing OGD initiatives

Role of Mobile Technology

Mobile telephony is the most trusted and available form of communication across Ghana. It is competing with the other very popular means of mass communication in the broadcast mode i.e. the radio. Any OGD initiative has to be inclusive of both these technologies for mass impact. This fact is further bolstered by the mushrooming of local mobile service oriented companies, providing value added services in partnership with key mobile companies.

To further enhance this offering any OGD type initiative can leverage the existing work done by the Web Foundation via the Mobile Entrepreneurs in Africa project. At its core the project envisages that majority of the people who are not yet connected to the Web will primarily experience it through their mobile phone. The potential offered by mobile phones is largely untapped, and mobile services and content offers for users are very limited, while lots of simple services could dramatically improve the lives of those living in underprivileged communities.

There is a lack of global awareness of the potential of mobile phones as an open ICT platform, of the different technologies that are available, and of the opportunities of developing sustainable or commercially viable services. While the primary beneficiaries of a large offer of mobile services would be end-users who could improve their lives or their businesses, all actors of the domain will also take advantage of the expansion of the market: content and service providers will have new business opportunities, NGOs and development actors will have new tools to improve their work and their impact, young people will have more employment opportunities, and mobile phone operators will have more traffic and value-added services (VAS), moving from voice+SMS to data service revenue. It is possible to create a virtuous circle where success stories and demonstrations of the potential will create excitement and further investment/development, leading to more success stories that can also include OGD initiatives.

Access to data is the most interesting case in OGD readiness assessment. Data is considered as a means to control power. The added complexity of the vague law of the land, official secrets act and the related oath empowers the civil servant to refuse access to data. This is the most significant singular reason for not providing access to raw data. There is also a threat perception that if RTI is enforced past work may be open to scrutiny and may create problems for the data provider itself.

Another significant barrier is the question of capacity building. The government officials themselves are not adequately empowered or trained to share data and are unable to process such requests. Most of the disposal of such requests is through an ad-hoc process. This process has a simple formula – you serve either a known entity or you serve via a token payment or commission.

Overall it is very difficult to obtain raw data from government departments. There is only some form of it available at the district level, but its reliability is questionable. In certain cases lots of agencies and related ministries do have data, but do not share it with others. It is safe to assume that there is no PSI reuse encouragement activity across any sector.

The use of technology is minimal with most of the work done on paper. However this is just one side of the coin. There is ample evidence from field research that individual departments and ministries do have a vast, albeit fragmented, network of ICT services when it comes to internal usage. Thus there is internal availability of data in electronic format. In the case of the recently conducted census most of the internal data processing is electronic.

The NIA possesses one of the most sophisticated data collection architectures with adequate emphasis on training and capacity building. However, in instances where data is available in electronic format, it is usually distributed on paper due to security and personal reasons. The civil society feels that release of digital data sets by government is something that can benefit from OGD type of initiatives, otherwise such an initiative it would be further delayed. NITA has a mandate to come up with an interoperability framework for both format of data and encoding standards. It is their view that this framework should be based on open standards and accessible from the NITA website.

The opportunity here is two-fold. The RTI Act may give the much-needed legal framework for civil servants that would enable them to answer the data requests in a defined process. Simultaneously technology and implementation support with respect to the open interoperability framework would provide a much needed standardization platform to the apex IT agency of the country, a critical area where they are already soliciting support from external agencies. Civil society organizations like the Population Council are already running initiatives in few African countries related to data (demographic is this case) reuse by third parties that can act as examples and guideposts to OGD initiatives.

Data Consumers

As of now it seems that there is no apparent evidence of active initiatives with regards to data reutilization at the government level, however this is not universal. As in the case of Population Council, there are pockets of existing initiatives that are crucial to OGD type of initiatives. Due to this conflicting scenario, the common citizens are probably still not sensitive enough to this fact, and there is a need for capacity building to understand data. Adult literacy is an additional barrier even though it is improving.

However on the demand side there is a strong consensus that the most important initial subset of users of OGD would be university students, journalists, law professionals, NGOs, donors and the Government itself.

The above classification is not based on isolated examples. During the in-country research component, a key data collection exercise on a national scale was underway. This census project invoked great curiosity amongst the common population and the civil society. There was a constant demand that not only the key outputs, but also the raw data of this massive exercise be put in the common domain for everyone to see. It is critical to note that entrepreneurs and in certain cases government officials themselves had ideas to act as open data providers.

Recommendations

With a strong democratic political set-up well entrenched, the overall confidence level of an average citizen in a participative democratic process is substantially higher compared to the early 90's.

As evident from the relevant sections of the report and our discussion above, there are several potential **barriers** while developing an overall OGD strategy that can be summarized as:

- Existence of well-known corruption problems and a culture of secrecy inherited from the pre-democracy era
- Absence of a clear regulatory legal framework that can provide necessary support for an OGD initiative
- ICT development level is low in terms of Internet connectivity, with the exception of basic mobile services, that have a high penetration level even in rural areas.
- Data collection activities mostly carried out in paper form. Even the digitally processed formats are not easy to process or reuse.
- Low literacy rates within the adult population
- Need to build capacity, both within the Government and citizens, to enable them understand the benefits of Open Government.



How to Overcome These Challenges:

It is important to step back and answer some key questions related to the challenges above:

1. Is there a critical mass in the country for an OGD initiative?
2. If so, where is this and how this can be channelized into a program/pilot project?

While it is evident from several key parameters – absence of RTI Act, high corruption perception, apparent disconnect between civil society and the government on capacity issues related to both implementers and users – that the ideal OGD scenario may not exist in Ghana, these parameters are indicative of only the reality in the ground situation.

Lots of interviewees in the study unanimously voiced the opinion that they consider availability of reliable and free data as a fundamental need. This need arises not merely from a good-to-have approach, but is critical to their day-to-day activities. The interest is coming from a wide variety of organizations, like World Education Ghana wanting access to latest education data, or ISODEC wanting oil contracts to be transparent. Engaged and motivated local champions are working towards the same goal, albeit in a disconnected manner, for instance the Population Council and NGO's at one end, and government agencies like NITA, NIA, or Ministries on the other end. They all express the need for someone to come in and do the capability and capacities portion for sharing information.

As evident from the interviews, some leading luminaries like Nii Quaynor, are not only pro-OGD but have also shared valuable insights as to how the program should be structured within the government with NITA taking the lead. This represents a scenario where the first steps towards OGD have already been taken. It is important now to translate this idea into a program while the window of opportunity is open.

The inevitable service driven e-governance projects would roll out by 2012. This would require government's willingness to release, access and use data to

provide new services. The RTI Act will not exist in isolation in such a scenario but would need to be mainstreamed along with all the services in order to ensure effective delivery and citizen participation. Hence it is critical to support this movement in the initial stages itself, and the right time is now.

To summarize, preliminary actions that could be carried out for an effective Open Data strategy are:

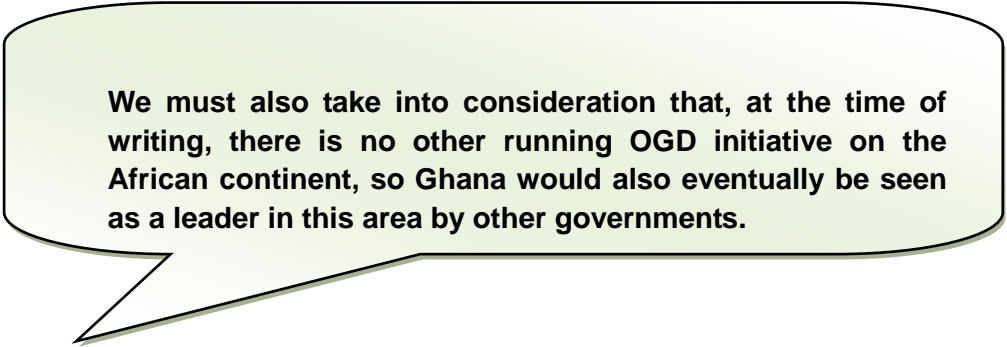
- Strengthen existing common linkages between civil society and government and connect pockets of collaboration in the OGD space that are not yet connected. For e.g., the Population Council National Data Catalogue project supported by government agencies and civil society.
- Start off with relatively harmless data sets from some specific departments and simultaneously promote capacity building. Introduce participative competition at different levels (university, NGOs, etc.) to create base level awareness and interest. For instance, health-related data could help lead the way, as there is already a lot of information available; it is not a threatening sector, and it would be of immediate and important benefit. A positive drive in the health sector could then be replicated or expanded through other government ministries.
- Train people on the need and use of data. Capacity building, both at civil servant and civil society, should happen. The university community in Ghana can also help in the training effort.
- Benefits of Open Data reuse activities should be made evident to the civil society and the government itself for a better chance of success.
- A prerequisite would also be to analyse and properly classify the current situation regarding the identification of information available in the administration.
- Improvement of the means, processes and channels used to collect information.
- Study different options with regards to open and standard formats for data and metadata, to facilitate harmonization with respect to other global initiatives, subsequent reuse and a convenient user experience.
- Encourage community building between civil society and government to understand the type of data that would be useful for civil society.

Strategy

Opportunity

Four key elements are already on the public agenda that can act as the prime movers for an OGD initiative in Ghana:

1. Launch of the National IT Agency: This signals the seriousness of the government in using latest ICT's to enhance the capacity of the government internally and also foster ICT growth in the private sector in the Public Private Partnership (PPP) mode. NITA itself is keen to undertake the flagship OGD project.
2. Census: The latest edition of the census was a technology-based process. It not only signals the acceptance of business process re-engineering within the government, but also a great deal of curiosity and excitement within the common citizens to understand the significance of this exercise and the accruing benefits. This is a great opportunity to translate curiosity into viable and useful products. Some universities and civil society organizations showed keen interest in creating products out of the raw census data if made available.
3. Legislative push: The passing of the RTI Act is imminent in Ghana. A common question that is associated is: after the act, what now? This indicates that OGD initiatives can fill the vacuum that would be created in the absence of proper implementation of the law due to capacity constraints.
4. Avoid the oil curse: There is a real surge in demand of information relating to the oil contracts and the role of the private sector. This is a key demand coming from all sectors of the society that can be well served by OGD initiatives.



We must also take into consideration that, at the time of writing, there is no other running OGD initiative on the African continent, so Ghana would also eventually be seen as a leader in this area by other governments.

It is evident from the discussion that Ghana's indicators show possibility with respect to its area of reference. However, considering the shortcomings that could lead to an Open Data initiative not being carried out successfully, the

recommended option would be to start with a pilot project in one of the ministries or agencies that are more prone to Open Government at present and focus other additional efforts on solving problems that may be of greater significance for a future initiative success, such as literacy, ICT infrastructure, government's treatment of the information and, especially, awareness and capacity building at every level.

It is evident that unless there is buy-in from the government, any pilot OGD initiative will not be sustainable. However, if such a framework is part of the overall service delivery architecture of the government to citizen services (e-governance) from day one, it would be difficult to negate the importance of OGD in the long run. As part of the implementation strategy, it is proposed that NITA is co-opted as the executing agency that defines and develops the overall OGD architecture of Ghana under the e-Ghana initiative currently underway. The Chair of NITA board himself has shown keen interest in taking responsibility for the entire process.

Based on a consensus view, the following steps should form part of the overall OGD strategy:

- Create linkages between civil society and government to analyse what constitutes a mutually useful data driven initiative.
- High visibility: Global OGD champions to kick-start the process. High visibility expected in the first stage from country visits by former Prime Minister of Britain Dr. Gordon Brown, US President Barack Obama, Jeffrey Sachs and Sir Tim Berners-Lee, actively engaging the top tier of the government.
- Nodal Agency: Make NITA the owner of data.gov.gh and support the initial technical and infrastructure investment.
- Capacity Building: Invest in training and capacity building in partnership with institutions like ISSER, NIA and the civil society.
- Standards: Open standards and interoperability issues need support from outside, as the capacity does not exist within NITA. Web Foundation can lead this initiative along with other supporting agencies.

Key People

Ghana's trump card in order to start initiatives for an Open Government strategy is the willingness of its three core levels of the socio-political setup. The top layer constituting the current President, John Atta Mills, is the prime mover. Coupled with the key middle layer constituting the administrative set-up of the government, and in partnership with the third and most important layer of civil society champions, can be an excellent catalyst to launch a bid for transparent and open government.

President Mills is a known supporter of transparency and is bound by the

election manifesto to ensure that the Right to Information is universally available to every citizen. From the administrative layer a key player in the country for the development of any kind of Open Government Initiative would be Nii Quaynor, as Chairman of the Board of NITA, and without any doubt the most active proponent of an Open Data strategy within the current government. From the civil society a coalition of Population Council, University of Cape Coast, Ghana Centre for Democratic Development, Institute for Democratic Governance and others can play a crucial role in incubating OGD initiatives in Ghana.

The case of Ghana has its own set of challenges and the situation may not be ideal. In such a scenario the groundwork to bootstrap OGD initiatives would be tougher, but at the same time the potential global impact would also be significant. After nine years of hard work and relentless pursuit by civil society, the RTI Act will see the light of day and has the potential to act as a catalyst between the three layers for ushering in economic growth and emergence of new innovative services that will improve people's lives.

Appendix A: Country Research

In order to perform a readiness study for the implementation of an OGD project in a given country, a preliminary analysis of a complex set of variables is required, since those projects require a set of minimal conditions in terms of development level, investment capacity, capacity and/or quality of governance, etc.

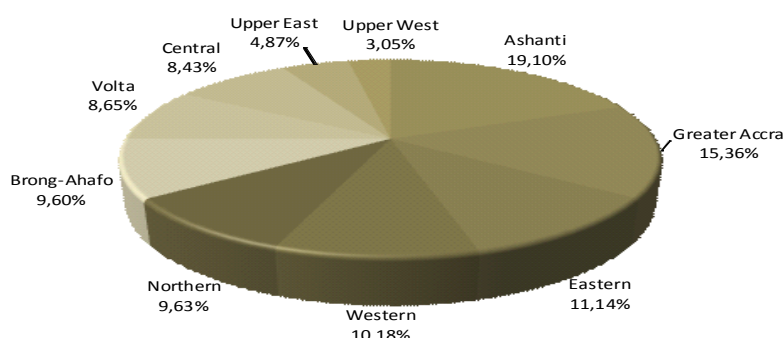
For each of the countries considered in the study, we analysed the key indicators in the various fields related to OGD. This required analysis of the country's economic, social and political systems, as well as its technological environment.



Ghana is located in West Africa's Gulf of Guinea and its population increased from 15.4 million in 1991 to almost 24 million in 2009. It is estimated that this figure will almost double by 2050, a remarkable increase despite being lower than the average predicted for the Sub-Saharan region. Ghana's population is heterogeneous and includes different co-existing religions, ethnic and social groups.

The population is largely rural, although urban agglomeration rates are increasing and now exceed those of the Sub-Saharan region by three percentage points. The following figure shows an estimate of the country's

population by region. Ghana's capital, Accra, is a metropolitan area inhabited by about 3 million people.



The predominant religion is Christianity, which is practiced by 69% of the population, followed by Islam at 15.6% and other indigenous religions and beliefs with a considerable percentage - 8.5%. The major ethnic groups are Akan, Ewe, Ga and Moshi-Dagomba²⁴.

The official language is English, a major competitive advantage (as we will see) for the country and its external relations. Other languages spoken in Ghana include Akan (including Asante Twi, Akwapim Twi, Akyem and Fanti), Mole-Dagbani, Ewe, Ga-Adangbe and Guan.

Ghana has a reasonably diverse natural resource base. Its main exports are minerals such as gold, diamonds, manganese ore and bauxite. The discovery of oil off the coast of the country may provide an important boost for its international commercial relationships.

Social Context

Ghana's adult literacy rate is approximately 66% - quite similar to other countries in the region but with clear room for improvement. The data show that this gap is being covered.

The high proportion of the education budget spent on secondary education clearly demonstrates that efforts are no longer solely focused on ensuring that citizens can read, but also that increasing numbers of young people are reaching secondary and even university education. This demonstrates significant improvement potential in the country's human resources.

As far as inequality is concerned, the rates are notably high. The top-earning

²⁴ US Department of State: <http://www.state.gov>

10% is 16 times richer than the bottom 10% of the population. This figure is half as low in other countries in the region, which indicates that although the country is experiencing economic growth, it must still overcome the challenges of achieving a better distribution of income and increasing growth potential. This may be due to the high proportion of rural population and the wide dispersal of the population across the territory.

Economic Context

During the last 20 years, Ghana has achieved important advances in terms of economic growth, keeping it on track to meet the Millennium Development goal of halving extreme poverty by 2015.

The country's main economic development objectives include improving the quality of life and widespread poverty reduction through private investment, macroeconomic stability and support from the international donor community.

Given its population profile, Ghana has a high labour participation rate and also a high employment-to-population ratio – above 65% of the total population is over 15 years old. However, the difference between the labour participation rate and the employment-to-population ratio is still higher than in neighbouring countries. This means there are more people looking for job but out of work than in other countries in the region. Again, this gap is related to the country's level of development and will be overcome when economic strength achieves stability over time.

Agriculture is still the main economic activity, accounting for over one-third of Gross Domestic Product (GDP) with cocoa providing about one-third of Ghana's export revenues. Industrial activity includes the production of textiles, tires, steel, cocoa processing, beverages, tobacco, and automobile, truck and bus assembly.

Due to commodity prices, gold and cocoa are the country's largest source of export revenue, although most foreign currency is sent back by national workers in other countries. Ghana's performance during the current economic recession has been considerable due to the high gold and cocoa prices, which increased export revenues, and the effect of good rainfalls on agricultural output and hydroelectricity production.

Nevertheless, industrial and services sector developments indicate that they may become the driving forces for future development and growth. The more the tertiary sector expands and the greater the degree of industrial sophistication, the more likely that Ghana's productive fabric will be able to compete globally and generate more wealth and employment. So far, important

advances have been made, although there is still a long way to go, especially in the international arena. Despite Ghana's GDP average annual growth of 5% over the last 20 years and its relative freedom from the impact of the current global economic recession, a much higher level of economic development is still needed to solve the country's poverty-related problems.

Attaining this goal is an extremely complex task due to the continued under-development of Ghana's business and economic fabric. However efforts are being made to overcome several obstacles, in which the public sector and international cooperation organizations will play a vital role.

Ghana also has one of the highest international cooperation indicators. Its openness to foreign countries and cooperation with those countries is an important opportunity when looking at future economic and social development. However, for technology-related aid, there still exists a gap versus other neighbouring countries like Senegal or Niger, which are capturing numerous such resources.

Obstacles to investment

One of the variables that may significantly contribute to Ghana's economic development is private investment, although numerous factors seriously hamper its growth:

- **Macroeconomic instability.** This is an extremely important issue in achieving adequate economic growth. As far as investment is concerned, uncertainty arising from instability may lead those with resources to decide not to risk investing due to the impossibility of predicting the development of the country's main macroeconomic variables.
- **Bank loans for the private sector.** As seen in the current recession, the difficulties experienced by companies in accessing bank loans have a negative impact on economic development and growth, as they inhibit entrepreneurs' ability to launch activities because they do not have enough resources to implement their projects.
- **Trade liberalization.** Although trade liberalization provides many important opportunities, according to the study carried out by Emmanuel Kojo Asante and Kafu Kofi Tsikata, Ghana's business community feels that liberalization may pose a threat to their products given superior quality of imported goods.
- **Political instability.** Problems related to the political instability and possibility of a coup have very negative impact on Foreign Direct Investment (FDI) since it is difficult to assess the investment risk relating to the legal and political sphere.

Ghana has experienced persistent problems in all these areas, but it has also been evolving positively.

Other factors hindering economic development

There are other factors that also endanger Ghana's development and which are described below:

- **Low technological advances:** According to Benno J. Ndulu and Stephen A. O'Connell, output per worker in Ghana decreased 0.12% between 1960 and 1997. The growth in the accumulation of factors and the level of education per worker was hampered by a 1.15% reduction in total productivity. In the light of these results, the slow growth of income per capita in Ghana between 1960 and 1997 can be mainly ascribed to the country's slow technological progress. However, this situation has now changed. The arrival of real democracy seems to have encouraged numerous reforms that have led to increases in private investment, public revenue and expenditure, and FDI. All this has had a direct impact on Ghana's per capita income and growth potential. Some of these factors will be analyzed in this chapter.
- **Land-tenure system:** The land-tenure system is one of the structural factors that hamper technological progress in the agricultural sector due to the problems involved in establishing property rights to the land, which also increases transaction costs. Historically, Ghana combined high agricultural specialisation with low technological development, two ingredients that usually lead to poverty and hunger. It should be noted that the diversification of the country's productive activity – as will be highlighted later -- has been very significant in the last twenty years due to the increasing importance of secondary and tertiary sectors and the introduction of more technological content and specialization.
- **Limited access to assets, basic infrastructures and services:** Poverty in Ghana has been historically related to inadequate assets and limited access to basic infrastructure and services, although infrastructures have evolved very positively as we will see in the relevant section of this document.
- **Living conditions in rural areas:** Poverty in Ghana was, and still is particularly concentrated in rural areas, where, for instance, water is still largely obtained from natural resources. High poverty levels and poor access to markets make subsistence production widespread and this has a very negative impact on the country's development. As a result, increased concentration and urban growth indicators reveal significant changes in this field, which is why special attention will be paid to this type of analysis in the section on Ghana's Social Context.

Political and Institutional Context

The Republic of Ghana gained independence from Great Britain in 1957. Its President is elected by universal suffrage, for a maximum of two, four-year terms.

The country's current constitution came into force in 1993 and combines elements from the constitutions approved in 1957, 1960, 1969 and 1979 with

ones from Great Britain's and the United States of America's constitutional models.

The system of government is a democracy under its national constitution, and the current president is John Atta Mills, who is also the leader of the National Democratic Congress (NDC) party. When the NDC came to power in 2009, it started pursuing an agenda that aims to harness the free market to boost Ghana's economic development, reduce poverty, protect workers' and human rights, and reduce corruption. In addition, the Government announced its intention to review the 1993 Constitution and support decentralization.

Government objectives

Socially and economically speaking, it is worth highlighting the Ghana-Vision 2020 initiative that was launched in 1996 and sets out a series of objectives for 2020 in the National Development Framework Plan to turn the country into one with medium revenues. The program's objectives are grouped into five broad strategic areas²⁵:

- **Human development:** Poverty reduction, average earnings increase and unequal opportunity reduction.
- **Economic growth:** Establish an open, liberal market that ensures the maximum material well-being of all Ghanaians.
- **Rural development:** Bearing in mind that around two thirds of the population live in rural areas, one of the main development objectives is to reduce the disparities in earnings and living standards between urban and rural populations.
- **Urban development:** The main objective is to ensure that small- and medium-sized cities adequately fulfil their role as service centres and that the urbanization process contributes positively to development.
- **A facilitating environment:** The aim is to create a context in which all sectors of the economy can contribute to sustained economic and social development. In this sense, public administration and national legal reforms are foreseen to contribute to development initiatives.

These ambitious objectives require a series of significant reforms and initiatives. Potential policies to facilitate the achievement of these aims include:

- **Private sector investment stimulus.** All policies conducive to increased investment, both domestic and foreign, should be advanced. This should take the form of concrete measures to reduce production costs, including tax and

²⁵ Ghana-Vision 2020. Presidential Report on Coordinated Programme of Economic and Social Development Policies:
http://chet.org.za/manual/media/files/chet_hernana_docs/Ghana/National/Ghana%20Vision%202020%20-%20First%20Step.pdf

interest rates, and to reduce instability of water and electricity supply, given their importance for productivity.

- **Keeping public accounts balanced.** Ghana will need balanced public budgets to achieve the acceptable macroeconomic stability necessary to promote economic and commercial development and to prevent the public sector being an obstacle to economic growth.
- **Promote transparency and control in mobilising financial resources, both at national and district levels.** Such policies must take the form of improvements to the fiscal burden, reduction of citizens' tax burden and the removal of bureaucratic bottlenecks.
- **Improve the monitoring and evaluation system under the Medium-term Expenditure Framework (MTEF)** for preparing budgets and financial administration. These measures must be supported by strengthening public spending and taxation institutions.
- **Support for sectors that absorb high numbers of the unemployed,** particularly export of non-traditional agricultural products and tourism. The main means of supporting these sectors will be:
 - Improve facilities for processing, packaging, storing and shipping merchandise.
 - Improve personnel skills through training.
 - Access to land purchase through a clear and efficient legal framework, which will require profound national initiatives for land tenure.

Policies for economic and social development

Policies designed to establish the foundations for a greater degree of economic and social development in Ghana consist of a series of initiatives promoted both at the international level, by cooperation and development bodies and donor countries, and at the national level by the government:

International Level

These actions are reflected in initiatives such as the Paris Declaration on Aid Effectiveness and the Accra Agenda for Action²⁶ in which participating countries (including Ghana) and institutions established objectives such as:

- Establishment of operational development strategies by participating countries, with clear strategic priorities linked to medium-term expenditure targets and public budgets.
- Public administration adherence to widely accepted good practices.
- Alignment of aid flows with the national priorities of each country.

²⁶ The Paris Declaration on Aid Effectiveness and the Accra Agenda for Action:
<http://www.oecd.org/dataoecd/11/41/34428351.pdf>

- Strengthening donor support capacity consistent with national development strategies.
- Promotion of shared systems for analysing information to help track the achievement of objectives.
- Development of frameworks for transparent monitoring and assessment of each country's performance.

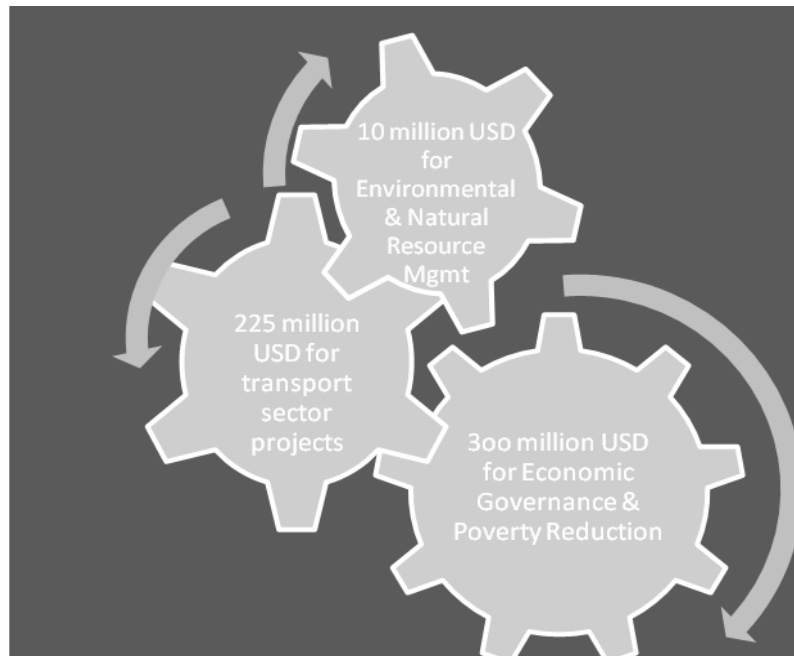
National Level

The initiatives presented in November 2009 by Kwabena Duffuor, the Minister of Finance and Economic Planning, for the 2010 budget and economic policies stand out as targeting greater economic development:

- **Public budget targeting macroeconomic stability and fiscal consolidation** using the following tools:
 - Maintaining the fiscal discipline achieved in 2009, when, according to the relevant data collected in the three first quarters of the year, the public deficit would stand at 10.2% GDP.
 - Positioning the country for sustainable growth by modernising agriculture and developing key infrastructure, notably Information and Communications Technology (ICT).
 - Implementation of social programs to reduce poverty.
- **Reduce inflation** to below 10% in the medium term.
- **Extension of structural reforms to reinforce institutions and the fiscal system and transform the public sector**, launched in 2009, primarily focused on improving resource mobilisation and spending management.
- **Continue fiscal system reform**, to make it more efficient and less dependent on indirect taxation.
- **Modernize the agricultural sector** to achieve a significant improvement in production and productivity, improve employment opportunities and reduce food imports.
- **Promote public-private partnerships** to accelerate development and implement policies and technical and legal standards to:
 - Support the widespread implementation of e-commerce.
 - Create a diverse, innovative, industrial sector with the active participation of the private sector.
 - Reduce business start-up costs to allow the private sector to flourish.
 - Improve the quality of dialogue concerning macroeconomic policy with the private sector.
- **Improve the Budget and Public Expenditure Management System (BPEMS)** using the new Ghana Integrated Financial Administration System, starting by installing hardware and software to implement a pilot

trail prior to full implementation.

Ghana's ambitious initiatives, supported by its fiscal discipline and readiness to collaborate with international bodies have made it possible to receive a 600 million dollar loan from the International Monetary Fund²⁷ and a 535 million dollar aid package from the World Bank,²⁸ which breaks down into the following:



Democracy and Civil Liberties

Considering the quality of government indicators, as well as its freedoms, citizens (and corporate) rights protection, the progress of the State of Law and therefore of its institutional quality, Ghana can be clearly stated as much stronger than the other countries in this context. As has been demonstrated, in addition to economic stability, Ghana has the institutional quality, legal development and political stability that will allow it to maintain progress achieved to date.

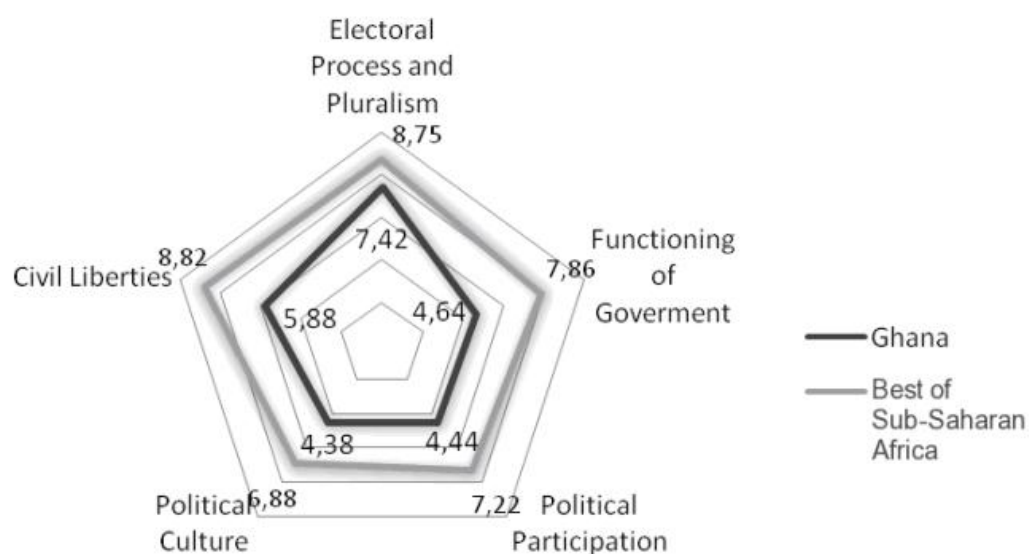
Having clearly surpassed the African states, if Ghana is compared against the best country in the group using the Economist Intelligence Unit Democracy Index (DI) of 2008²⁹, there is still a significant progress needed in democratic

²⁷ Ghana secures \$600m loan from IMF: <http://news.bbc.co.uk/2/hi/business/8155374.stm>

²⁸ World Bank Approves US\$535 Million Package for Ghana:
<http://web.worldbank.org/WBSITE/EXTERNAL/COUNTRIES/AFRICAEXT/GHANAEXT/N/0,,contentMDK:22232485~menuPK:50003484~pagePK:2865066~piPK:2865079~theSitePK:351952,00.html>

²⁹ The Economist Intelligence Unit's DI 2008:

and institutional quality to reach western levels.



One of the most significant indicators in this area is related to the perception of corruption in Ghana, which still fails in comparison with its neighbours. However, the fight against corruption in the country is a political flag being flown by the democratic governments. Diverse initiatives have been executed through the United Nations (Transparency International) in an attempt to confront this problem. Given its history, this problem seems to be improving markedly, and the corruption perception index has improved tangibly in Ghana since 2001, whereas it has deteriorated in the other Sub-Saharan countries³⁰.

Scientific-Technological Context

In spite of recent improvements, Ghana still lags way behind leading Sub-Saharan countries like South Africa and Mozambique in terms of innovation. Innovation capacity is also far lower – although recent initiatives should produce significant improvements in the next few years.

One basic indicator for assessing the reality of ICT development in a country is that relating to foreign trade in this sector. In Ghana, as in other African countries, ICT imports are clearly superior to exports, which are practically non-existent. It is expected that this phenomenon will reverse if Ghana is capable of globally positioning itself to outsource ICT services, primarily to the UK and US.

There is practically no difference between e-government and e-participation

<http://graphics.eiu.com/PDF/Democracy%20Index%202008.pdf>

³⁰ Ghana Integrity Initiative: <http://www.tighana.org/>

development in Ghana in comparison with its neighbours. However, there is still significant room for action in the implementation and use of ICT in the country.

Even though the country has forged a development strategy in the context of ICT, neighbouring economies (such as South Africa, Niger or Mauritius) have greater political and economic priority on ICT.

The recent study published by Hewitt Associates for The International Bank for the Reconstruction and Development provides a picture of Ghana's potential in terms of new technologies and the parameters of activities linked to knowledge³¹. The study is entitled *“Improving Business Competitiveness and Increasing Economic Growth in Ghana. The Role of Information and Communications Technologies and ICT-Enabled Services”*. This report shows the importance of developing the ICT sector for Ghana's future, as well as how the foundations for promoting this sector are now being forged, opening up significant potential for generating wealth and employment.

It defines how Ghana can use ICT as the nucleus of a strategy for economic growth and development in the short, medium and long term. This impression is also given by the World Bank's providing development funds for policies using ICT. Indeed, as the World Bank stated³² in summer 2009, 535 million dollars were approved for development aid, to which ICT projects approved in June 2010 to support fundamental aspects for the viability of an Open Government Data project must be added. These objectives are cited as generating:

“...growth and employment by leveraging information and communication technologies (ICT) and public-private partnerships to develop the IT enabled services industry. The project will also contribute to improved efficiency and transparency of selected government functions through e-government applications”.

In the same manner, the report cited that Ghana's ICT sector measures the country's capacity to become a global benchmark among developing countries for new technology-related services. The report also compares Ghana to its neighbours and other developing economies using this sector to leverage growth (South Africa, Egypt, Mauritius, Botswana, Nigeria and Senegal, India, China, The Philippines, Romania and Mexico). This capacity is analyzed using five fundamental variables for assessing current development and future ICT

³¹ Improving Business Competitiveness and Increasing Economic Growth in Ghana:
<http://www.infodev.org/en/Document.170.pdf>

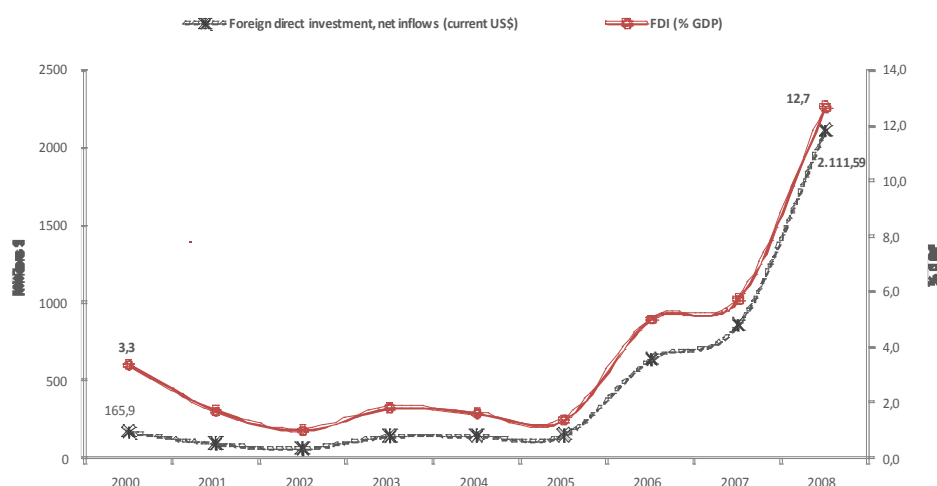
³² World Bank Approves US\$535 Million Package for Ghana:
<http://web.worldbank.org/WBSITE/EXTERNAL/COUNTRIES/AFRICAEXT/GHANAEXTN/0,,contenMDK:22232485~menuPK:50003484~pagePK:2865066~piPK:2865079~theSitePK:351952,00.html>

capacity: Human Resources, Infrastructure, Regulation, Clusters and Existing Companies.

ICTs have played a significant role in the economic development of the world's economies and have allowed countries to capture the benefits of globalization, or market integration, making it possible for emerging economies to transform into economic powers. Ghana could feature in this list in the medium and long term. ICTs directly affect all economic sectors, from agricultural activities, through industry and construction, to the most advanced services. In Ghana's case, with a relatively scarce industrial basis, the services sector, specifically those services with high added value, are fundamental for sustaining the economic growth that has already been seen in recent years, thanks to the transfer of jobs from the primary to the services sector.

In this sense, the data supports Ghana's position in capturing FDI, which reached its historic peak in 2008 with over 2,100 million dollars, the equivalent of almost 13% GDP, as shown in the following graph:

Graph: Foreign Direct Investment in Ghana (2000-2008)



Source: Represented by the authors using data bases of the International Monetary Fund, International Financial Statistics and Balance of Payments, World Bank and Global Development Finance.

The report quoted the ICT sector's capacity to continue attracting this kind of investment in the future, more concretely in the field of new technologies - seen as an opportunity to create employment, train the workforce (normally financed by foreign companies operating in the territory), transfer technologies to the workers and other national companies (improving their competition capacity)

and, as is increasingly common in the transfer of ICT activities to the developing world, enable the improvement of technological infrastructure. All this feeds the country's own capacity to continue growing and becoming specialised in a type of emerging activities, which are of high value and global positioning. Ghana has achieved decent progress in this area and is becoming a strategic Sub-Saharan location for promoting projects such as the OGD ones.

Competitive Advantages

Ghana has several revealing, and competitive advantages for developing ICT projects:

- A large section of the population is proficient in English, which is also the official language. The USA and UK need quality English speaking agents who are willing to work in shifts thereby providing their customers benefits of extended hours.
- Labour and non-labour costs are very attractive in comparison with other developed and emerging countries.
- In the same way, the stable socio-political climate demonstrates concern (and implements political actions) to continue improving rights protection, and to develop measures to remove barriers and obstacles to corporate development.
- The country's governing bodies strongly advocate ICT development, unlike their neighbours.
- For all these reasons, foreign companies have more security on their investments than in some of Ghana's neighbours.
- The favourable business climate is also accompanied by the expansion of communications infrastructure that, although still not perfect, is progressing in the right direction.
- We cannot overlook the progress made and still to come from policies maximizing corporate investment through tax breaks or the opportunity to create companies with 100% foreign capital, something which is not commonplace in other emerging countries.
- Laws protecting intellectual property are also in progress, a fundamental factor for developing certain types of ICT companies.

Nevertheless, the proportion of people employed in the ICT sector is still relatively low, leaving a significant margin for growth. For this growth to be viable, it must be accompanied by structural improvements, such as investment in communications infrastructure, broadband network extension and fundamentally, improvement in the education system. The flip side of government support for investment is high inflation – which, since 2003, is being attempted to be brought under control, and relatively high interest rates that limit

some of the incentives the industrial policy has offered investors.

As for Human Resources specifically, in Ghana the following factors need to be underscored:

- High English language knowledge index
- A certain cultural affinity with Anglo-Saxon countries
- Competitive labour costs and flexible labour
- The workforce's ability to adapt, once trained and to perform necessary tasks

All these factors are fundamental for ICT companies to develop in Ghana. Nevertheless, Ghanaians have difficulties in reaching management levels within the companies, resulting in a reduced pipeline of qualified candidates, which in turn makes it more difficult for leadership positions to be filled by local employees.

Let's not forget that Ghanaian and Indian institutions collaborate in The Kofi Annan Centre of Excellence in ICT³³, which aims to give high technological capacity to human resources through training and to serve as a seed for new private tech companies, which can then relocate to the Technology Park's business centre.

Technological Development

The fact that the local financial system is stable and in good health has to be considered in regards to the institutional climate. It enables industrial policy to be implemented through various incentives to attract foreign investment in the ICT sector. Other actions to highlight include:

- 10-year tax break for new companies registered with the Ghana Free Zone Board.
- Agreements to avoid double taxation with countries including France and Great Britain.

Through the National ICT Policy and Plan Development Committee, Ghana's government pursues a series of strategic objectives³⁴:

- Transform Ghana into an information- and knowledge-driven ICT literate nation.
- Promote the use and exploitation of information, knowledge and technology within the economy and society as key drivers for socio-economic development.
- Modernise Ghana's educational systems using ICTs to improve and expand access to education, training and research resources and facilities, as well as

³³ Advanced Information Technology Institute: <http://www.aiti-kace.com.gh/>

³⁴ Ghana ICT Policy and Plan Development Committee: <http://www.ict.gov.gh>

improving the quality of education, and training and to make the educational system responsive to the needs and requirements of the economy and society with specific reference to the development of the information- and knowledge-based economy and society.

Private business initiatives are also clearly backing ICT. In Ghana, 50 companies belong to the national IT association GASSCOM³⁵, including U.S.-based IT services company ACS, which employs 1,800 people in Ghana³⁶.

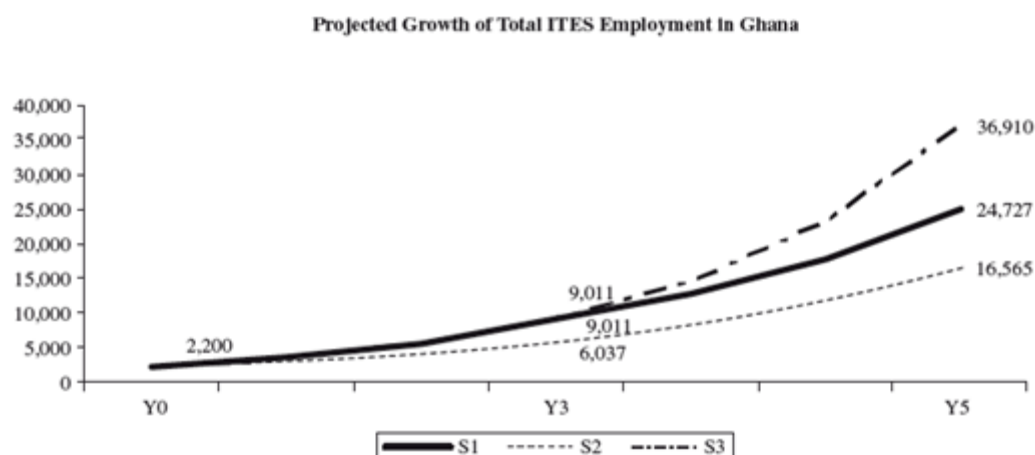
Other factors to consider include social and political stability and time zone compatibility with European companies (same zone as the UK) and America (between 4 - 7 hours difference). Despite the lack of significant geo-political risk, Ghana still lacks the international image associated with the development of new investment in technology. Reports therefore recommend a national marketing campaign. Another factor that may influence international companies' refusal to set up shop in Ghana is the sense that trade unions have a strong influence in the country.

As for potential sector clustering, the Hewitt Associates Report demonstrates that the local resources are in place for developing ICT corporate dynamism in Ghana. International finance opportunities are increasingly accessible, including venture capital and bilateral or multi-lateral agreements with development agencies, international institutions or other countries. The main problem is the level of education. This variable is redundant with regards to many other factors. The gap between the needs for higher education provision means that companies need to invest heavily in training their human resources to give them the necessary capacity to compete at international level. This lack of training also impedes local staffs from attending international forums, publishing in scientific journals, and obtaining patents, which further increases the learning gap.

Ghana aims and can hope to become, the doorway for new technologies into Western Africa and to become a 'hub' to the most developed economy in the continent - South Africa. All of this is thanks to the relative advantages it holds over its neighbours - stability, improving macroeconomic indicators, ease of investment and a market economy that is committed to developing private enterprise. Simulations carried out by Hewitt Associates confirm this in the following graphic:

³⁵ GASSCOM: <http://www.gasscom.org.gh/>

³⁶ *'The Shifting Geography of Offshoring.'* A.T. Kearney.



Leading neighbour, South Africa, is already a focal point for locating ICT activities given its flexible labour market, labour costs, greater capacity of the work force to adapt to production needs (in terms of shifts, work load and execution of medium and mid-high tasks).

ICT Infrastructure

One very important infrastructure factor is that the telecommunications industry is a partially free market, meaning that it is not subject to the regulatory requirements of other neighbouring countries. Moreover, Internet penetration and the development of telephony are sufficiently high for us to consider that the minimum critical foundation is in place for ICT development. Even in recent months, it seems that the necessary steps have been taken to reduce telecommunications costs, as demonstrated by the fact that the ICT Price Basket³⁷ of Ghana decreased by almost 23% in only one year (between 2008-2009). We must stress that broadband roll-out has not yet reached a significant level, making this the principle obstacle to the policy of reducing access costs described earlier. Moreover, connection quality and access outside the Accra area is clearly unsatisfactory, even in strategic locations such as Tamale or Kumasi.

However, the high level of private investment in telecommunications is a positive indicator, showing corporate determination to improve technological indicators. Ghana is managing to involve private operators as co-participants in developing national telecommunications infrastructure, although this also represents significant risks if monopolies are developed. Communications' evolution is clearly positive, given that in the year 2000 there were hardly any mobile phones in Ghana whereas in 2008 there were almost 50 subscribers per

³⁷ IDI 2010: http://www.itu.int/ITU-D/ict/publications/idi/2010/Material/MIS_2010_without%20annex%204-e.pdf

100 inhabitants.

In the last ten years, Internet use by Ghanaians has grown exponentially, particularly between private companies who have accepted the Internet as a necessary tool for their businesses. There are currently 112 Internet Service Providers in Ghana. Broadband Internet is still far from reaching across a country, which still has a high percentage of territory with no mobile phone network coverage

Legal Context

The Legal Regulatory Context that may provide the necessary framework for an OGD initiative is still under development in Ghana. This section describes the efforts so far:

Right to Information

There has been a strong call for Ghana to enact a Right to Information (RTI) Law³⁸ and affirm the public's right to information as a critical means to bolster and promote transparency.

The government expressed its intention to initiate the RTI bill, and after continued pressure, one was finally announced. The attempt to draft a Right to Information (RTI) Bill in Ghana was initiated by the Institute for Economic Affairs, a civil society organization, as a proposal that would stimulate public discussion and call on the public to engage in debates to shape the bill once tabled before Parliament.

In 2001, civil society organizations led by the Commonwealth Human Rights Initiative with funds from the British Council embarked on a publicity campaign to sensitise the public on the RTI Bill through seminars and workshops to provide an opportunity for further criticism on the bill.

A year later, the Ghanaian government through the Attorney-General's Department drafted its own bill specifying among others, procedures governing access to official information by the public, obligation to publish, oversight bodies and appeal procedures.

Further in 2003, a significant feature that strengthened the bill was the inclusion of private bodies among those obligated to disclose information in their custody to the public. This covered areas such as protection of fundamental human rights, preservation of private safety and protection of public interest.

³⁸ Ghana: Right to Information Bill: <http://allafrica.com/stories/201006180597.html>

However, major concerns were raised on weak provisions such as those relating to expensive fee structures, penalties, lack of an effective independent enforcement organ and long duration for disclosure of information.

The Bill in its current state has seen further reviews made in 2007, 2008 and 2009. Now with the NDC government professing commitment to the passage of the law, it is expected that the Bill will receive presidential assent within the shortest possible time.

Privacy Act

The Ghanaian government has recently initiated stakeholder consultation for the passage of Data Protection Bill³⁹ (DPB) and Electronic Communications Regulations Bill (ECRB) to serve as legal instruments for the safeguarding of personal data and privacy.

These bills provide for the protection of privacy through the regulation of information processing relating to individuals including the method by which data is obtained, held, used or disclosed. It also sets out the rights and responsibilities of parties involved in the processing of personal data, and it regulates the procedures and processes for institutional operations.

Communications Minister Haruna Iddrisu has announced the government's decision to pass into law the DPB by the end of 2010⁴⁰. He noted that this would give security to all personal data including those related to mobile telephony.

Mr. Iddrisu underscored the importance of SIM card registration. He said that he had heard from a section of the public, concerns about the compulsory SIM card registration and people's fear of privacy invasion.

The Communication Minister assured that *"Government will continue to uphold and respect the privacy of the communication of every Ghanaian"*.

Intellectual Property

On 19th November 2008, Switzerland and Ghana launched a project on intellectual property rights technical assistance⁴¹ in Ghana. The project has a

³⁹ Data Protection Bill 2010 underway:
<http://www.ghanaweb.com/GhanaHomePage/NewsArchive/artikel.php?ID=189002>

⁴⁰ Government to pass law on Data Protection soon:
<http://news.myjoyonline.com/news/201003/43522.asp>

⁴¹ Strengthening the Intellectual Property System in Ghana:
<https://www.ige.ch/en/legal-info/international-cooperation/country-specific-projects/ghana.html>

duration of three years beginning 1st January 2009.

On 6th July 2010, the Minister for Trade and Industry, Hon. Hannah Tetteh, inaugurated a 13-member National Intellectual Property Policy Committee (NIPPC) including ten representatives to provide strategic guidance to the Swiss-Ghana Intellectual Property Rights project. The committee is to ensure that the project is progressing in the right direction and is in line with the development trends in Ghana.

The project is supposed to deliver on seven outputs, including the National Intellectual Property Policy Articulation, making Legislation in all areas of the TRIPS Agreement fully operable, update and complete public awareness and understanding of Intellectual Property increment and judicial continuous sensitization on Intellectual Property issues. It is also set to work on Patent Information utilization by the public and private sector for knowledge based decisions concerning Technology, make Intellectual Property offices fully operational, set up an efficient Automated Industrial Property Management system and put in place an Electronic Copyright Register.

Appendix B

Questions and Interviewees Profile Mapping

Developed by:

With the partnership of:



16 September 2010

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Status of This Document:

The document contains the proposal of a complete OGD Questionnaire with the questions that need to be answered for the assessment of OGD readiness in a given country.

Introduction

This document defines an OGD readiness Questionnaire that summarizes all the questions that need to be answered to assess OGD readiness in a given country. Questions are divided into four thematic groups that represent the different stages of an OGD project:

- **Situation:** Learning about the context on which the project would be developed
- **Analysis:** ICT infrastructure and the way government archives and handles information
- **Operations:** Ways and facilities to make the information public
- **Reuse:** The view from the outside world and facilities provided by the government to consume the information

Methodology

Feedback received so far shows that the total number of questions in previous versions of the questionnaire was too many, so this new approach groups them using much higher level questions and came up with less than 30. There are also a higher number of more detailed sub-questions that will be used only as guidance for the interviewer, who could select subgroups as necessary depending on how the interview goes.

Additionally, as not all the questions make sense for all the profiles we plan to interview, the top level questions have also been mapped to the different profiles; thus, every profile will only give answer to relevant questions.

The answers to the high level questions could be elaborative and difficult to compare and integrate in the final report, so answers will be normalized. The general approach is that when the interviewer is in front of the interviewees he will guide them to answer each of the top level questions using the more detailed ones as needed and, at the end, will select one out of three of the normalized answers.

For example, for the question *“05 - Does the country have legislation related to reuse of Information from the Public Sector?”*

The normalised answers can be:

05 Answers

The law exists and it is proactive.

The law exists but it is not proactive, or it is under development.

The law does not exist.

Specific answers from interviewees will be nonetheless also collected by the interviewer in order to enrich the final report with some quotes and more specific information.

Profiles of the Interviewees

The different profiles that will take part in the interviews process will be identified in the following way:

Government and institutions

- Top level – **T**
- Middle layer - **M**
- International institutions - **I**

Civil society

- Civil hackers and activists - **C**
- Private Business - **B**
- Press and Media - **P**
- University - **U**
- NGO, non-profit - **N**
- Donors - **D**

SITUATION:

T M I C P U N D

01 Is democracy well founded in the country?

Are human rights well respected and protected in the country?

Are legal rights well respected and protected in the country?

Is there sufficient democratic representativeness in the country?

Do citizens frequently vote in elections?

Do citizens respect politicians?

I C B P U N

02 Is there a perception of corruption in the country?

What is the policy environment with regards to international anti-corruption law?

Regionally, could the country be described as lagging behind neighbouring countries in terms of openness and transparency?

Is corruption an important concern for private companies?

Do allegations of serious corruption reach the highest levels of government, or are they restricted to middle and lower levels of government?

Is there an anti-corruption movement in the country, and could it be an effective ally?

Has corruption decreased or increased over the last several years?

T B

03 What is the importance of ICT to Government?

How much priority does the government in the country place on information and communication technologies?

Is there a specific strategic plan for ICT deployment or is ICT present in more general strategic government plans?

How well, in ICT infrastructures connectivity terms, is the country linked to other countries? Was there any improvement over last years?

T M I C P U

04 Does the country have legislation related to transparency? (e.g. Right to Information)

Is the government in a strong pro-RTI phase or does it rather regret having RTI – for instance, does it have a strong track record of appealing against RTI using legitimate judicial means?

What are the political and bureaucrats perceptions towards RTI laws? What do they see as constraints and challenges to implementing RTI laws?

Is it delivering on transparency and social outcomes?

What is the type of information affected? (Geospatial, legal, weather...)

Does a national authority enforce it?

Have there been any significant amendments since the implementation of the RTI laws? And if so have their strengthened or weakened RTI?

Have the implementing authorities received any training for implementing RTI?

Do sanctions per non-compliance exist?

Is there evidence showing that agencies/public bodies are complying with them?

How frequently do departments get requests for information through RTI laws (number of applications)?

How often information is provided i.e. what is the percentage of incidents when information is denied under RTI? And is there an appeal process?

Does the political opposition have a track record of using RTI?

Does a claim process exist? What is the annual amount of sanctions per claim?

Does an appeal process exist?

Has the judiciary been active in upholding Right to Information obligations?

What is the annual amount of positive responses to RTI requests?

Do citizens need to register and give personal data to get the information?

Is the process proactive or reactive?

Are civil societies informed about their privacy rights? To what extent?

Who are the primary users of the RTI laws?

If the country does not have a Right to Information law, is there an active movement advocating for one?

If the country does not have a Right to Information law, are there sectorial Right to Information laws, transparency provisions within the country's constitution, or applicable international standards (e.g. Aarhus convention) that are relevant and implemented?

T M C U

05 Does the country have legislation related to reuse of Information

from the Public Sector?

What is the type of information affected? (Geospatial, legal, weather...)

Does a national authority enforce it?

Do sanctions per non-compliance exist?

Is there evidence showing that agencies/public bodies are complying with it?

Does a claim process exist? What's the annual amount of sanctions per claim?

Does an appeal process exist?

Do citizens need to register and give personal data to get the information?

Is the process proactive or reactive?

Are civil societies informed about their PSI reuse rights? To what extent?

If the country does not have a PSI reuse law, is there an active movement advocating for one?

If the country does not have a PSI reuse law, are there sectoral PSI reuse laws, transparency provisions within the country's constitution, or applicable international standards (e.g. EC Directive) that are relevant and implemented?

06 Does the country have legislation related to privacy protection? (e.g. Privacy Act)

What's the type of information affected?

Does a national authority enforce it?

Do sanctions per non-compliance exist?

Is there evidence showing that agencies/public bodies are complying with it?

Does a claim process exist? What's the annual amount of sanctions per claim?

Does an appeal process exist?

Are civil societies informed about their privacy rights? To what extent?

07 Is the Government middle layer ready to facilitate an Open Government initiative?

How empowered is the middle layer by the current political environment. In which departments and at what level?

If a civil servant or public employee sponsors a disruptive project are they likely to be promoted or disciplined?

Is openness a high stakes issue at the middle layer? How threatened might individuals advocating for openness within this layer feel? To what degree and how might middle level civil servants resist opening government data that was not collected with the intention of being released?

How technically competent is the middle layer?

What level of technical training is available within the civil service?

Does the civil service have plans to recruit more technical specialists?

Does an existing network / community exist that bridges the gap between the middle layer and civil society?

T M C B U

08 Is the political top level layer ready to facilitate an Open Government initiative?

Is the country at a particular stage in the political cycle that would make opening government data advantageous in a political sense?

Has a new government recently come to power (or is about to) that wishes to open up recent historic records or prove that it is 'clean'?

Are there any individual politicians in the party of government who prominently support open data or RTI?

Politically, who might the winners and losers be if government data is opened?

Is there a political appetite for quick wins on transparency?

To what degree and how is the expense of opening significant amounts of government data likely to be an issue?

Could regional peer pressure have an impact on top level political will to open data (e.g. ASEAN, SADC)?

How is the top political tier likely to react to advocacy from any one of the following actor:

Tim Berners-Lee?

Barack Obama?

Commercial operators (e.g. Google)?

Entertainment industry: film stars?

ANALYSIS

T M C U

09 What level of data collection does the government undertake?

Is this data collected in a systematic and timely fashion?

Is this data stored digitally or on paper?

Is primary data is preserved as raw data?

In what format is digitized data collected and stored? Are these open or proprietary formats? Are they machine-readable?

To what extent are conversations around the digitisation of government

subject to vendor capture?

Are there mechanisms in place to preserve data in a permanent way?

M C B U

10 What is the quality of data?

Is the data available as primary data, i.e. with the finest possible level of granularity, not in aggregate or modified forms?

Is the data complete? i.e. there is evidence that the available data represents the whole set of existing data and not just a part or view

Is data made available in a timely fashion? Is data made available as quickly as necessary to preserve the value of the data?

Are quality audits that comply with international standards being undertaken?

T M

11 Does the country have a licensing and copyright framework?

Is government data or compilation of government data currently protected by copyright or another intellectual property like regime?

What is the type of information affected?

Does a national authority enforce it?

Is the data subject to any licences which restrict reuse? Are open licenses empowered?

Is the license of any given government information always known?

Are there any exclusive agreements? What is the amount of government information affected by them?

T M B U

12 Is there any Interoperability framework at the government level?

Are open standards generally used and promoted within the government level?

Is it regulated by a national act?

Is it mandatory?

Is it enforced?

What is its level of awareness in public bodies and agencies?

What is its level of deployment in agencies and public bodies?

How relevant is its multi-channel delivery strategy⁴²?

T M

⁴² <http://www.w3.org/TR/egov-improving/#multi-channel>

13 Are there Public Sector Information reuse outreach and encouragement activities?

Is information generally available at no financial charge?

Existence of training operations aimed at public servants?

Level of PSI reuse knowledge transference (forums, etc.)?

PSI reuse encouragement activities (seminars, workshops, competitions, etc.)?

Dissemination of Good Practices (Yes/No)

Existence of a government-wide PSI awareness project and/or plan (e.g. EPSI Platform)?

OPERATIONS

T M B U

14 What is ICT Development level and evolution?

Is the use of ICT's well extended in the country? How technically literate is civil society?

Has it improved over the last several years?

Is the connectivity cost affordable? (e.g. cost of DSL line, mobile subscription, etc.)

Do ICTs have a high use rate in the private sector?

Does Internet have a high use rate in the private sector?

T M B U

15 What is the Internet connectivity level?

How many people have a personal computer at home?

What level of Internet penetration is there across the country?

What level of Internet broadband penetration is there across the country?

Is there any restriction regarding Internet access?

If in-country internet access is limited, is there a diaspora opposition that organises itself online that could use open data?

T M B U

16 What level of mobile penetration is there in the country?

What level of mobile penetration is there in the country?

What is the amount of mobile phone subscribers with data access?

How are people accessing mobile data services (SMS, 3G etc.)?

T M I C B U

17 How developed are Government electronic services in the country?

Does the government have an e-government strategy? Is it implemented?

How many government agencies have a website?

Are most government services available online?

Do those available online have a high use rate?

Is there a representative amount of government services to engage with the citizenry?

Are there major public sector ICT projects in train that could be helped by open data?

Are there any major national public service ICT projects underway? (e.g. computerization of patient records)

T M

18 Is there a management structure that facilitates Open Government?

Does a high-level executive office for national public information policy (e.g. UK OPSI) or committee exist?

May the office above establish and mandate government-wide policy?

Do Agencies/Public Bodies have a high-level person responsible for public information (e.g. a CIO)?

Does a high-level executive office or committee for access to information and transparency exist?

May the office above establish and mandate government-wide policy?

Do Agencies/Public Bodies have a high-level person responsible for access to information and transparency (e.g. a CIO)?

Does a high-level executive office or committee for Open Data exist?

May the office above establish and mandate government-wide policy?

Do Agencies/Public Bodies have a high-level person responsible for Open Data (e.g. a CIO)?

Reuse

T B U D

19 What is the capacity for innovation in the country?

Is there more ICT import or export?

Does the country export a high amount of ICT produced via research?

How do companies obtain technology? Do they invest in ICT research?

What's the amount of foreign technology used by companies?

Does procurement or innovation framework allow small projects to be funded (<\$50,000 in PPP terms) without a major tendering exercise?

T I U

20 What is the education and literacy level in the country?

How much public money is spent on education?

What is the adult literacy in the country?

How many qualified people are there in the country?

Are there good universities in the country?

How much public money is spent on education?

M C B U

21 Is there a potential user base that may make use of targeted data?

To what degree are citizens ready and willing to participate more actively in governance?

Is there a user base of traditional civil society groups that may make use of targeted data?

Are there specific examples of those groups using data in their advocacy/monitoring or other civic engagement activities?

Are there specific examples of take-up of data by end users that may inform open data initiatives?

Amount of PSI-related innovation and research projects funded by the government?

Amount of private companies whose business is at least partially based on reusing PSI?

Existence of programs related to PSI at Universities?

T M C P U

22 How dynamic is the media sector?

Is it free?

Is it wired?

How active is the press in demanding information from government?

Is there a wide range of media covering and many political viewpoints?

Have there been any prominent 'wins' from transparency campaigners?

Are there laws protecting journalistic privilege?

To access protection of such laws, do you have to be a qualified journalist?

M C P U

23 How easy is to reuse available data?

Are there examples of open data practice at the sub-national level?

In what ways did that data need to be made accessible in order for it to be used?

What's the amount of data available in open standard machine-readable formats?

Existence of an online public register of all the public sector bodies that hold PSI?

How many agencies/public bodies have a single access point to data (e.g. data.agency.gov.*)?

How many of the single access points are accessible to people with disabilities (at least WCAG-AA compliant website)?

How many agencies provide open standard automated discovery services (e.g. REST Web Service or SPARQL endpoint)?

24 Are there reuse initiatives from the civil society?

Are “civic hackers” present?

Are there instances in-country where local civil society groups are appropriating government data already?

Are they not only collecting data, but making that data available, either with or without an analytical or service/functional layer on top of it?

If an individual obtains and then publishes on the web a set of government data, either without clear authorisation or information that is awkward for vested interests, are any of the following likely to happen to them:

- extra-judicially intimidated
- arrested under criminal law
- prosecuted or threatened with prosecution under civil law such as copyright or defamation
- prosecuted or threatened with prosecution under administrative law (in countries where this exists)
- denounced in the press by government sources
- face technical measures to remove the data from the Internet such as pressure on the local ISP.

Is there conspicuous scope for quick wins in translating projects such as 'Fix My Street' or 'They Work for You' or Open311 into a local context.?

Is there an organised, technology-led local group, such as the Sunlight Foundation, or MySociety, in the country?

Does a PSI Association of private companies exist?

TICUD

25 Are there donors active in the country who could be useful allies?

How significant are donor countries?

Are they providing project or budgetary support? If budgetary, what performance data do they receive in return? (E.g. for donors funding education in country, do they have access to educational achievement metrics, school locations etc. Similarly for health).

Are donors already releasing their own data openly?

Are they willing to impose an openness requirement on their grantees?

How thoroughly does the administration report on aid spending?

How has the country reacted to previous tied aid? Is there scope for positive conditionality?

Does a PSI Association of NGO's exist?