Quick Scan Ghana

Netherlands Water Partnership

SNV

Netherlands Space Office

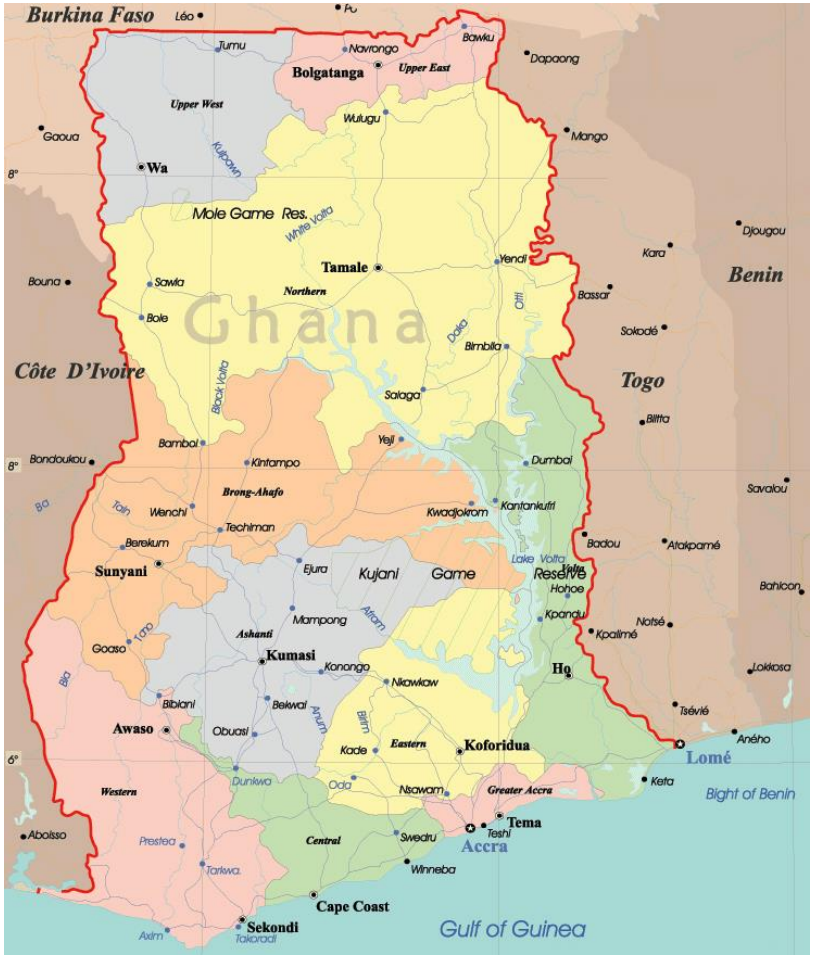
Overview of presentation

1. Quickscan objectives
2. Part 1:
   - Ghana context
   - Ghana climate, agro-ecological zones, landuse
   - Climate change
   - Food security and water issues
3. Part 2: information needs and G4AW

Quick Scan Objectives

- Input for preparation towards country visit by NSO, and matchmaking workshop in Ghana.
- Provides information from different perspectives and in a wider context of Agriculture & Water in Ghana
- Identifies key stakeholders for potential partnerships ahead of G4AW call

Ghana – Profile



- Bordered by Burkina Faso (N), Togo(E), Cote D'Ivoire(W) & Gulf of Guinea(S)
- Land area of 238,500sq. Km
- Major water bodies – Lakes Volta & Bosomtwi (3,275sq. Km)
- Population: 25.37million (WB-2012)
- Life expectancy at birth -61years
- lower middle income country (WB -$1,550 per capita income 2012)

Ghana – Political

- 10 administrative regions, decentralisation: 216 metropolitan, municipal and district assemblies
- Strong democracy (survived 2013 Petition after the 2012 Elections)
- Only 11% representation of women in parliament
- Free Press
- Decade of stable and high economic growth (5.2% on avg.) peaking in 2011 (14.4%) but down in 2013 (4.3%)
- Challenges with maintaining stability of Ghana Cedi

Ghana - Land Use

Type of Land Use	Hectares	%
1. Total Land Area	23,884,245	100.0
2. Agric. Land Area	14,038,224	58.8
2.1 Area under cultivation	7,847,300	55.9
2.2 Total area under irrigation	30,345	0.4
2.3 Area not under cultivation	6,190,924	44.1
3. Area under inland waters	1,100,000	4.6
4. Others (forest reserves, savannah woodland, etc)	9,125,721	38.2

Ghana - Climate

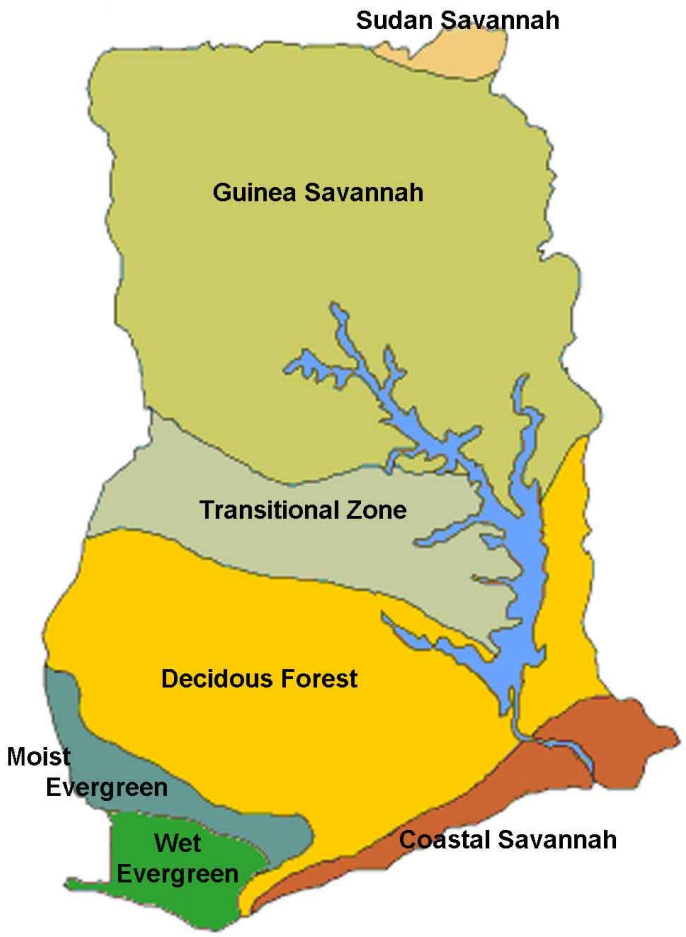
Generally tropical climate – influenced by West African Monsoon

Two main rainfall regimes:

a) the **double maxima regime** occurring **south** of latitude 8º30`N, from May to August and from September to November.

b) the **single maxima regime** found **north** of latitude 8º30'N, only one rainy season from May to October, followed by a long dry season from November to May.

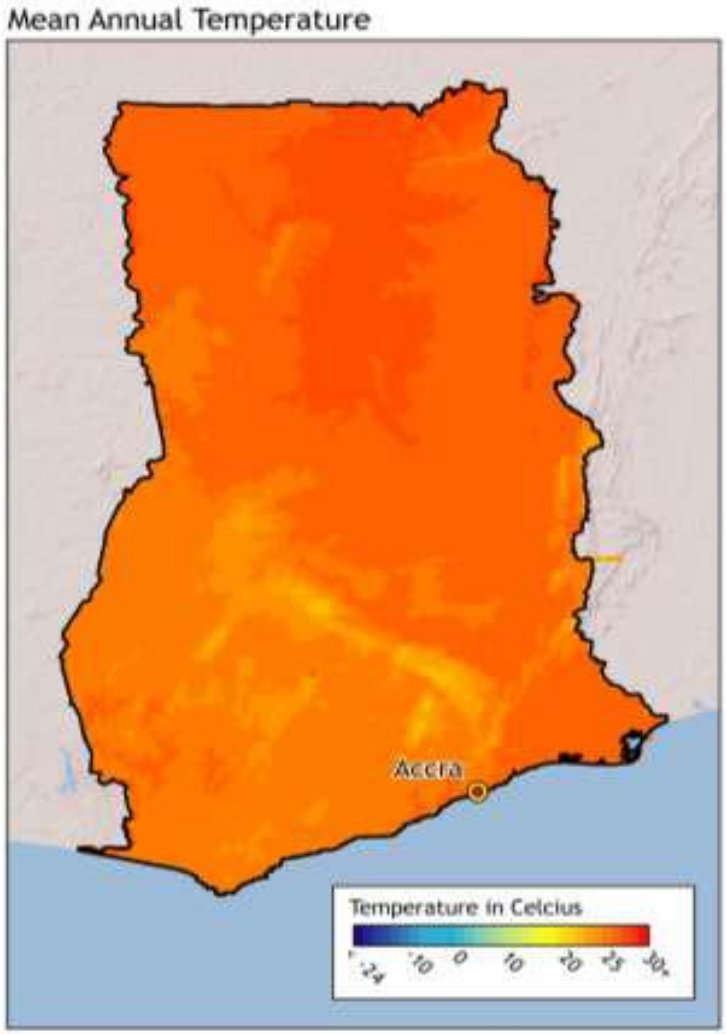
Agro-ecological zones and rainfall

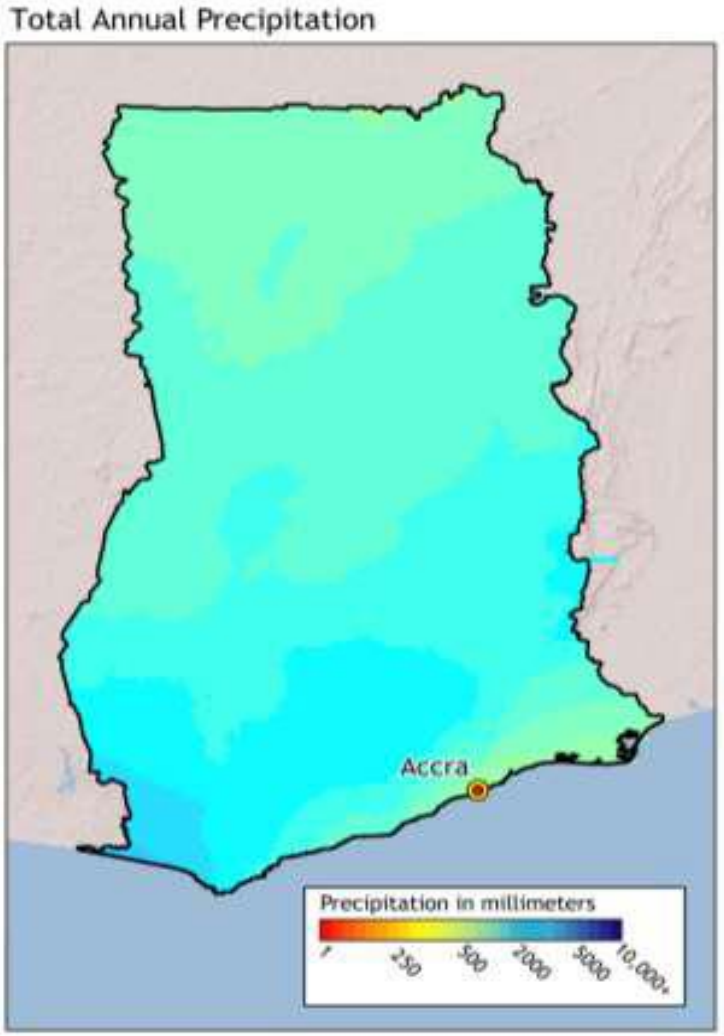


Agro-ecological zones	Mean Annual Rainfall(mm)
Rain Forest	2,200
Deciduous Forest	1,500
Transitional	1,300
Coastal	800
Northern Savanna: Guinea Savanna	1,100
Sudan Savanna	1,000

Source: 'AGRICULTURE IN GHANA- FACT S AND FIGURES 2012' Statistical, Research Information Dept, MOFA

Climate in Ghana – temp and rainfall (trends since 1960)





Source: 'Vulnerability, Risk Reduction & Adaptation to Climate Change' -WB/GFDRR 2011 Ghana Country Profile

Climate Change – Observations
From 20 year data

- Higher incidences and longer periods of flooding and drought
- Temperatures in all zones are rising - warmed by 1°C over the last decades
- Rainfall is reducing and becoming increasingly erratic

Climate Change - Predictions

Source: World Bank (2000-2050)/UN (2060-2090)

- Increase in mean annual temperature by 1-3°C by 2060
- Temperature increases are expected to average 1.4°C (North - 2.1-2.4°C)
- Decline in annual rainfall by 1.1% and 20.5% in 2020 and 2080 respectively.
- Cyclical pattern of precipitation for all regions- high rainfall levels followed by drought almost every decade
- Changes in run off and stream flow = worse floods and drought in both rural and urban areas

Potential Effects

- Inadequate water supply for **Irrigation and hydropower generation**
- **Agriculture** – depends on natural resources and weather (rainfed largely)
- **Socio-economic** –effects of 2007 floods (see box)
  - 112mm of rainfall in 24hours in one town in NR = 20% of annual average rainfall
- More than 80% of the disasters in Ghana are thought to be the result of climate-related impacts: flooding, drought, disease outbreaks, wind storms and extreme weather events that contribute to climate-induced migration.

Effects of 2007 Floods in Northern Ghana

- *317,000people affected*
- *1,000km of roads destroyed*
- *210schools affected*
- *45 health facilities damaged*
- *630 drinking water facilities were damaged or contaminated.*
- *Thousands of people were displaced in the north*
- *30 people lost their lives*

Government of Ghana's Response to climate change

- Cross-sectoral National Climate Change Committee (NCCC) set up
- National Climate Change Adaptation Strategy developed
- 2014 - National Climate Change Policy ready for public sharing
- Collaboration with neighbouring countries on management of natural resources esp water
- Participation in international forums and signatory to major climate change protocols

GoG - Key Climate Resilience priorities

- Increasing resilience through identifying and enhancing **early warning signals**
- **Alternative livelihoods**: minimizing impacts of climate change for the poor and vulnerable
- Adapting to climate change through enhanced research and **awareness creation**
- **Managing water** resources to enhance productivity and livelihoods
- Minimizing climate change impacts on socio-economic development through agricultural **diversification**
- Adaptation to climate change: sustaining livelihoods through **enhanced fisheries and resource management**.

Research, data, info gaps for Climate Change Adaptation

- Wide variation in quality and coverage of available information
- Many research data……. but results not yet translated/applied for addressing Disaster Risk Management (DRM)
- The outputs of research need to be shared in appropriate forms for various social categories and across many sectors, including government, private sector, the media, non-governmental organisations, schools and communities

Main Issues of concern - Food security

- Food security – **food sufficiency** in main staple crops (cassava, maize, yam, sorghum and millet)
- **Food imports** of rice, sugar, poultry and fish
- WFP 2009 - 5% of the population or 1.2 million people food insecure
- **Regional disparities**:
  - 3 northern regions – 15-34% of population food insecure
  - Another 2mill vulnerable to food insecurity – rural areas of Brong Ahafo, Ashanti, Eastern and Volta regions

Food security Issues (cont'd)

- Human resources and Managerial skills – **ageing** farming population (avg age 53yrs),high **illiteracy** and **youth** seem to lose interest in farming
- Sustainable Natural Resource Management - small holder farmers' livelihoods highly dependent on **natural resources**
  - lack of awareness of effects of traditional agricultural practices eg. Slash and burn, on environmental degradation
  - weak enforcement of rules and regulations on environmental management

Food security issues (cont'd)

- Technology Development and Dissemination-**low adoption** of new technologies
- Infrastructure – Roads and railways improved over last 5-10years; but still need for better access roads from farm to market, more irrigation systems and market and other **rural infrastructure**
- Need to improve **standards** of production and processing for regional and international **competitiveness**

Water issues

- Main **consumptive uses** of water in Ghana – household water, irrigation and livestock watering.
- Main n**on-consumptive** uses - inland fisheries, water transport and hydropower generation
- Consumptive water demand for 2020 projected to be 5 billion m3, far less (12%) than the total surface water resources available; distribution and accessibility, however, is a **challenge**
- **Variability** of amount of water from season to season and its distribution in the different climatic zones
- **Decreasing availability** from climate change
- Significant surface water **contamination** from illegal mining, urban and industrial practices
- Inadequate reliability of data on water for management and planning

GOVERNMENT POLICY ON FOOD SECURITY

- Policy framework for Ghana's Medium Term Development - **Ghana Shared Growth and Development Agenda** (GSGDA)
- Key strategic thrust of the GSGDA – lay foundation for the structural transformation of the economy through industrialization, especially manufacturing, based on **modernized agriculture and sustainable exploitation of natural resources**
- Devotes chapter to **Climate Change**

Agriculture Policy

- Main - Food and Agriculture Sector Development Policy (FASDEP II)
- Investment Plan for FASDEP II – Medium Term Agricultural Sector Investment Plan (METASIP)
- Major policy goals - food security, employment and poverty reduction

Key interventions:

- ***food security*** *and emergency preparedness*
- *increased growth in* ***incomes***
- *increased competitiveness and enhanced integration into domestic and international* ***markets***
- *sustainable management of land and* ***environment***
- ***science and technology*** *applied in food and agriculture development*
- *improved institutional* ***coordination***

Major Agric Programmes

1. **Agricultural Mechanisation** –establishment of well-equipped mechanization centres to provide services to smallholder farmers
2. **Fertilizer and Seed Subsidy Programme** – accessible and affordable seeds and fertilizer to smallholders
3. **Irrigation Development** – to reduce reliance on rainfall
4. **Youth in Agriculture** –to alleviate youth unemployment and stimulate interest in agriculture
5. **Extension Services** – improve adoption of technology in agriculture – E-agriculture and e-extension pilots to be upscaled throughout the country with WAPP (West African Agriculture Production Programme)

Water Policy

- Strategic Framework – Ghana Water Policy (2007)

Key Focus areas:

- Achieving **efficient Integrated Natural Resources Management**
- Ensuring **access to Water** without discrimination to all residents
- Ensuring **availability of water** for food security for all seasons
- Managing **demand, availability and efficient use** of water for non-consumptive purposes.
- **Financial sustainability** in water resource management through **equitable pricing** and **alternative funding** mechanisms