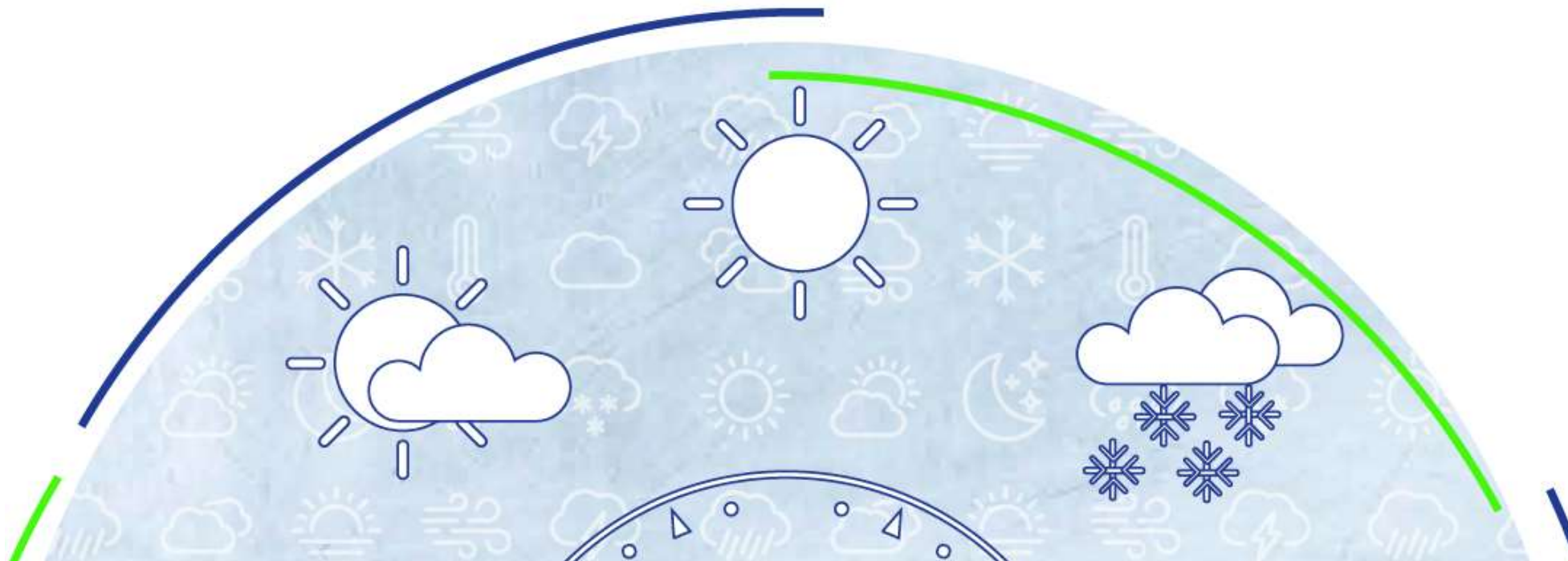


# PRIVATE SECTOR ENGAGEMENT IN CLIMATE INFORMATION SERVICES IN AFRICA



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# Climate information services

- Climate information services deal with the generation and provision of climate information to support climate-resilient development and inform climate-related decision-making and climate-smart policy and planning.
- They involve the acquisition, processing, packaging and delivery of weather and climate variables.
- The Economic Commission for Africa (ECA), defines these services as the packaging and dissemination of climate information to specific users (Kadi and others, 2011).



# Importance of climate information services in Global Framework for Climate Services priority areas

- Agriculture and food security
- Water resources
- Disaster risk reduction
- Health
- Energy



# How is climate information produced, processed, disseminated?

- Access key mechanisms influencing climate in the area; either local, regional or global phenomena
- Use of modern effective information integration and dissemination capabilities.
- Media, primary communicators (print, electronic)



# Main actors of climate information in Africa

- National Meteorological and hydrological Services
- Regional climate centers (RCC)
- Academic and Research Organisations e.g., Climate systems and Analysis Group, University of Cape town, Ghana Space Science & Technology Inst.
- Dissemination mediums (print/electronic (radio, TV) and social media

# Challenges of climate information services in Africa

## The services lack

- Political Backing
- Financial Resources
- Internal Capacity
- Institutional Collaborations between private sector and CIS producers.
- Access to quality and adequate climate data
- Information and Communications Technology (ICT) infrastructure
- Proper communication and representation of climate information

# Rationale of the study

- Foster collaboration between Government and the private sector to meet increasing demand for accurate and timely climate information at all levels.
- The involvement of the private sector is the best option to relieve the operations of the national institutions to some extent.

# Role of the private sector in the production, processing and dissemination of climate information

- A vibrant private sector generates decent jobs, releases stress on government tax revenue and creates opportunities for more inclusive and green growth.
- Governments empower poor people through regulation, funding and providing public goods, Private Sector services generate much-needed employment.
- To curb challenges emanating from improper CIS implementation, the African Climate Policy Centre, in collaboration with the United Kingdom Met Office, is implementing Weather and Climate Information Services for Africa (WISER).
- Private sector partnership with national institutions in delivering information would help lessen burden on institutions and promote efficient services.



# Types of private sector involvement in climate information service value chains

- The private sector in Africa is diverse, comprises large national corporations, private investors, small and medium-sized enterprises and multinational companies.
- 8 in Ghana, 6 in Kenya, 5 in Malawi, Burkina Faso and Uganda, 4 in Nigeria and Côte d'Ivoire 3 in Madagascar, and 2 in Ethiopia, Mali, Senegal, Sierra Leone, the United Republic of Tanzania and Zambia. The remainder have either one or none.
- Companies include Viamo, Esoko, Ignitia, Farmerline, Farm Radio, Manobi, the Hershey Company and Ghana Agriculture Insurance Pool

# Types of private sector climate information services

- Engagement is at many different points along the value chain.
- It ranges from supporting weather observation from tailored, value-added products and services to delivery to end users.
- Products include seasonal forecasts, the onset of rainfall (and the planting period for farmers), in simple and local languages in most cases. Provision of extreme climate information for vulnerable communities and disaster relief agencies.
- They use government-collected data to develop new tools and products and sell to individual users. E.g., Farm Radio communicates to over a million farmers in 11 countries.

EXISTING ENABLING ENVIRONMENT

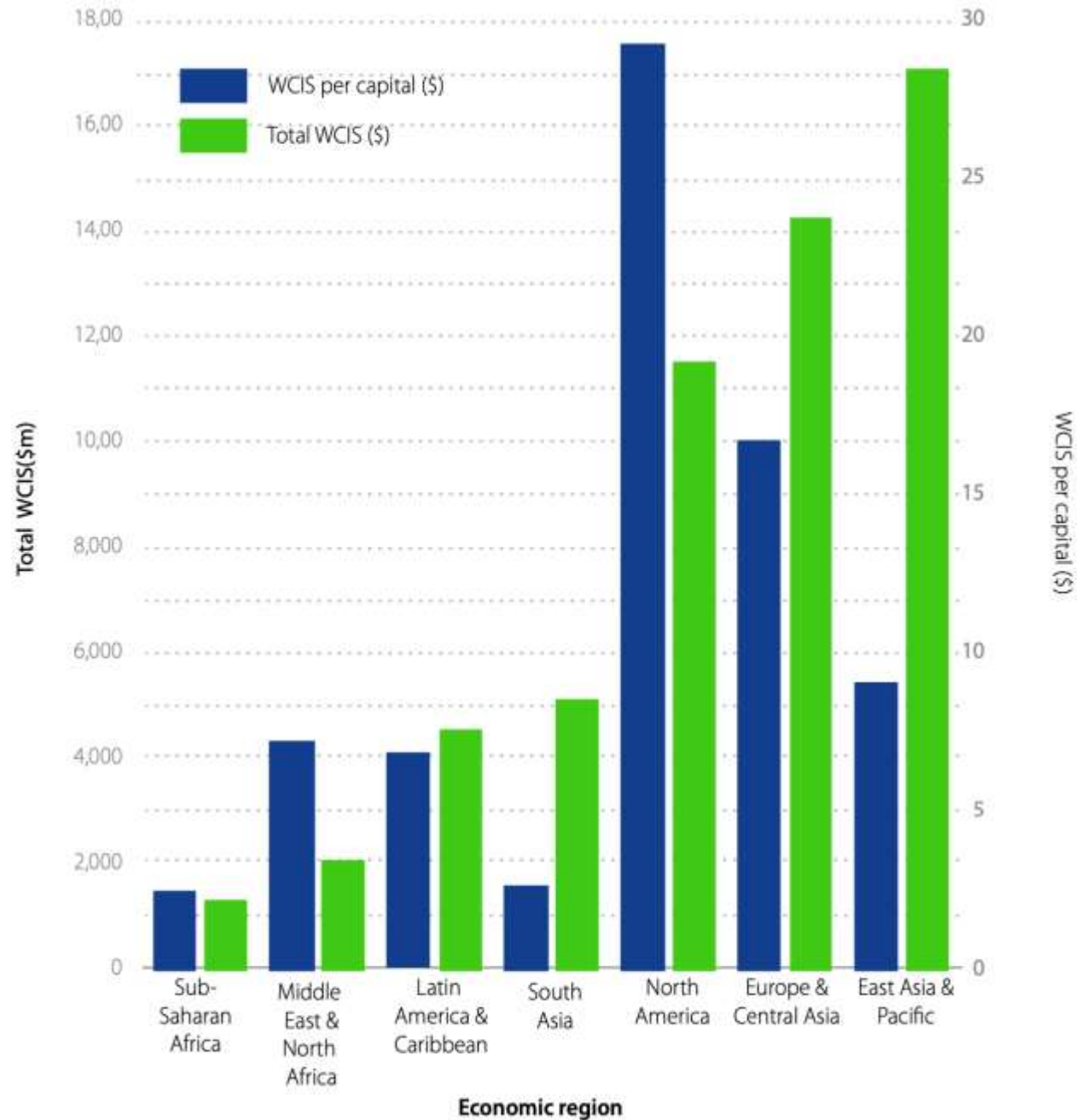
# Policy and data-sharing protocols

- National meteorological and hydrological services provide free data to students, universities and research scientists.
- The requests of other users, mainly for commercial activities, are handled differently according to the request.
- In response to all request types, the provision of data is accompanied by conditions with which the user has to comply. For example, non-data sharing with third parties' policies and data source acknowledgement.

# Institutional capacity

- The regional climate centres acquire, develop and manage regional climate data sets, databases and archiving services in collaboration with national meteorological and hydrological services.
- Conduct applied climate studies, including monitoring anomalous conditions, promoting regional research and the creation of specialized products and decision-making support tools.
- Functions may vary in regional needs determined by the economic and climatic situations of the regions.
- Most are funded by grants and contracts for services, data and research projects from government and private-sector sources (De Gaetano and others, 2010).
- Each regional climate centre and national meteorological or hydrological services is supported by the academic institutions in the region or an international institution e.g. IRI
- NGOs have contributed to the provision of climate information, but generally as the communication and awareness-raising component.
- Sub-Saharan Africa spends both a lower total amount and lower amount per capita than any other region. Figure 1 shows the disparities that exist in investments in weather and climate information services across in 192 countries grouped by economic regions.

Per capita spending and total spending on weather and climate information services, in 192 countries.



# Facilities, data archives and data sources

- Data archiving is a critical role.
- Climate data is usually archived at national meteorological or hydrological services and regional climate centres. The former has their hydro met stations for weather observation, from which they obtain data for archiving.
- Other sources of weather data available to them for use and archiving are satellites.
- Universities, research institutions and some sectors, also archive climate information, usually obtained from the national services.
- The historical data captured on paper, microfilm and outdated digital media have now been digitized at the various national meteorological or hydrological services in Africa. - PICSA approach

# The market and demand

- According to the report by Winrock International, more than 2.36 million end users receive
- climate information from private-sector providers in sub-Saharan Africa.
- Demand is high in aviation, agriculture for most of the countries
- The likes of Ghana, Nigeria and Rwanda, receive demand from insurance companies.
- Nigeria is a typical example where there is demand for climate information from the health



# National frameworks for climate services

- Gambia, Guinea, South Africa and the United Republic of Tanzania have prepared their national frameworks for climate services, guided by the Global Framework for Climate Services. Ghana, Nigeria and Rwanda underway.

# Private sector challenges in the provision of climate information services

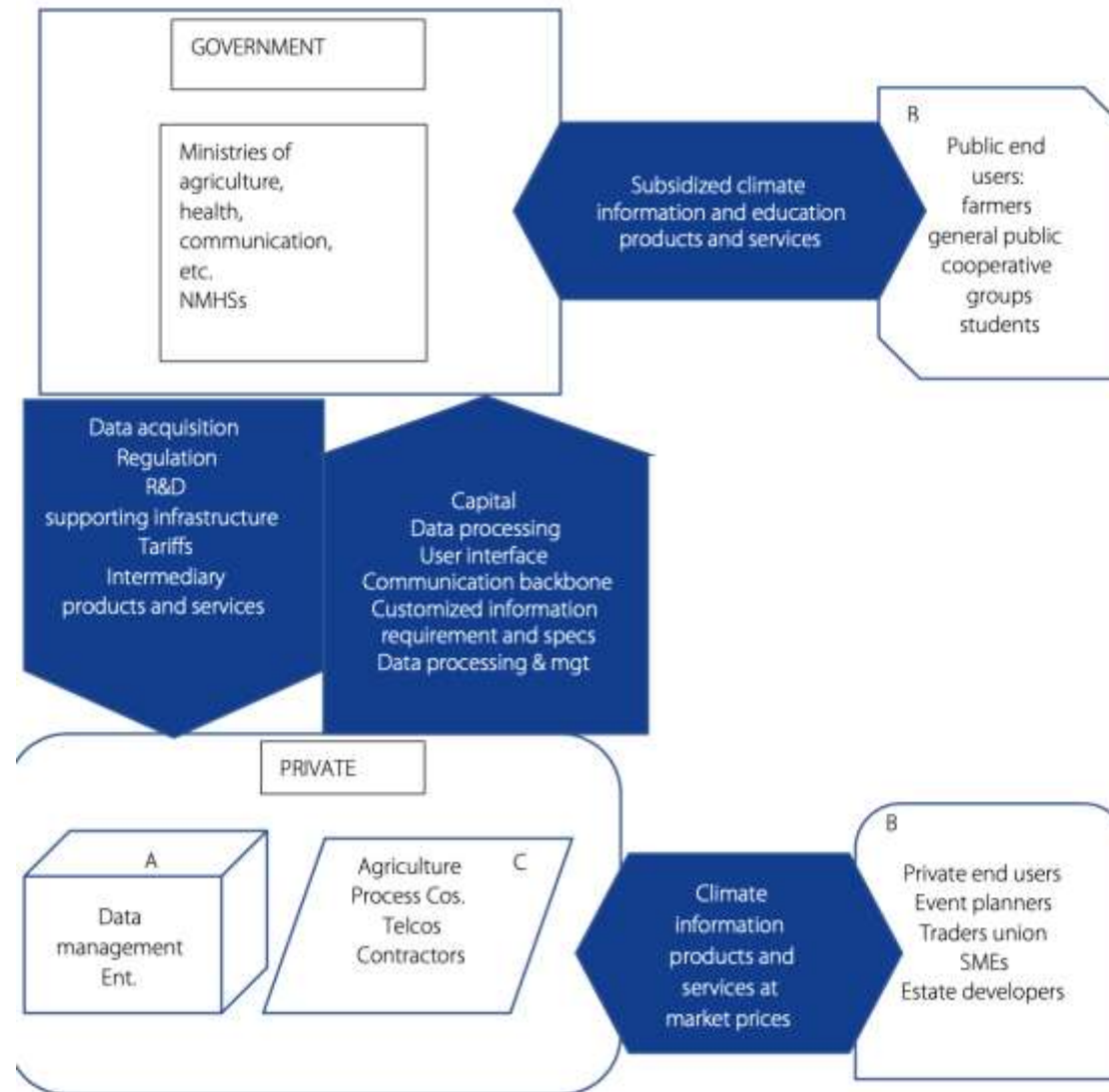
- Political challenges
- Economic challenges
- Sociological challenges
- Technological challenges
- Legal challenges



# Success stories

- Farmerline – subscription-based information service that sends SMS and voice messages on weather forecasts, market prices, new farming techniques, agrochemical applications and finance directly to the mobile phones of rural farmers in the local language of their choice.
- It started in Ghana and extended to Cameroon, Malawi, Nigeria and Sierra Leone, reaching over 200,000 farmers.
- Farmers who subscribe to Farmerline services see a more than 50 per cent increase in their income.
- Hershey's - a confectionery company that depends on cocoa farmers for its raw materials.
- Farm Radio is operating in 11 African countries and reaching tens of millions of farmers.

# Workable business models for greater private sector involvement in climate information services



# Recommendations

# Strategic needs - National level

- The business model of climate information providers in African countries must be compatible with the needs and requirements of the private sector.
- National meteorological and hydrological services should take pragmatic steps to fully integrate private sector services.
- There should be a clear national policy and legal framework on collaboration with private actors, specifying the roles and responsibilities of each player, especially those of national services and private actors.
- There should also be an independent national regulatory framework to moderate the roles of national services and private actors, and private actors and clients to ensure a climate information market that enforces good practices and meaningful results
- Need for staff additional skills for upgraded infrastructure and it is important to have a succession plan to ensure continuous availability of qualified personnel for continuity of service.

# Strategic needs - Regional level

- Stronger collaboration among national meteorological and hydrological services for knowledge and infrastructure sharing.
- Staff exchange programmes would promote knowledge transfer and sharing of expertise.
- The Climate Research for Development (CR4D) framework is available for coordination and exchange of knowledge to strengthen links between climate science research and climate information needs in support of development planning in Africa.

# Operational needs

- National level
  - Upgrade current infrastructure, equipment and software to meet the demands of the private sector.
  - Improve existing infrastructure to enable high quality, resolution, customized information delivery in timely manner.
  - Build high-quality databases of clients and partners to create access to climate reports tailored to the needs of the private sector and development sectors, such as health, agriculture and water resources.
- Regional level
  - Guidance provision on data distribution to ensure curation, transparency, traceability and stability of data and scenarios.