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# Public Private Partnerships for Weather and Climate Services: a Challenge and an Opportunity



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# Weather and Climate Information Are Fundamental for Development

- *“Instead of saying you need 30 Automatic Weather Stations to improve your observation network, you can say that you are aware weather and climate impacts on key sectors of the economy like agriculture and food security; water resources management and development; health and public safety, tourism, aviation and marine transport; disaster risk reduction; climate change monitoring/detection and attribution; among others. You then state that given sufficient resources, the department can provide services that would improve the above key sectors of the economy by, for instance, improving production in agriculture to boost the economy, fight hunger and poverty.”*
- *Dr. Joseph Mukabana, Director, Kenya Meteorological Department*



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# Many Sectors Require Tailored Weather and Climate Information

- Aviation has very specific requirements for international airports; private and less sophisticated small commercial aircraft depend on good weather reports
- Utilities require both weather and climate data for managing power generation (especially hydro) and forecasting demand
- Farmers need weather and climate information tailored to local crops and conditions, e.g., the start of the rainy season and extreme low temperature
- The “private sector” is comprised of very diverse entities, large and small, local and international, with equivalent divergent data needs



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# Many Private Companies Are Highly Exposed to Climate Risks – But May Not Know It!

- Farmers and Agri-business companies are constantly planning and responding to expected and actual climate, both extremes and changes in averages; direct and indirect risks (e.g., loss of workers to malaria)
- Utilities, public and private, are directly and indirectly affected by climate on both the supply (reduced hydropower, lower thermal generation efficiency) and demand side (higher peak demand)
- Ports and coastal buildings are at risk from sea level rise and severe storms
- Many water intensive industries are dependent on long-term water supply and competition from urban consumption; impacts are direct (drought, groundwater depletion) and indirect (Coca Cola example)
- Financial sector becoming aware of investment risks
- Risk awareness is uneven but spreading starting with most vulnerable
  - Climate risk screening at company level still challenging; IFC examples
  - IFC pilot now requires review of climate risks for vulnerable sectors



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# Governments Can Enable Private Sector Awareness and Response to Climate Risks

- With some exceptions (e.g., insurance), private companies are largely dependent on public services for information on climate trends and long-term forecasts
- Non-governmental entities will incur most damages from climate change and invest the majority of funds in adaptation; thus removing barriers and disincentives to private adaptation efforts (e.g., climate resilient construction) is important
- There are significant opportunities for public-private cooperation to identify climate risks and promote adaptation
  - Turkey program with industry association and environment ministry supported by EBRD and IFC



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# Public-Private Partnerships for Support of Weather and Climate Information Systems

- Developing countries, including African LDCs, have significant experience with PPPs for infrastructure, power generation, and telecommunication
  - Hospitals in Nigeria and Lesotho
  - Port infrastructure in Benin and Madagascar
  - Privatization of telecoms in Uganda and Kenya
- A way to bring expertise, capital, and a profit-driven approach to delivery of public services
- Particularly useful in a time of rapid evolution in technologies
- Developed countries have experience with partial privatization of weather and climate services – but lacks an immediate revenue stream; in most aggressive cases 20 to 40% of budgets
- Technical and financial support sometimes available from IFIs/donors



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# Issues and Challenges

- Resistance to perceived loss of public ownership and control – traditional view weather data is a public asset
- Public concern public assets are generating private profits
- Legal complexity
- Potential for favoritism/corruption
- Additional revenue may be offset by budget reductions with no net benefit to public agency



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## Next Steps: Walk Before We Run?

- Consultations and engagement with the private sector is already an element in many initial country responses to the UNDP project
- Expanding the discussion to include possible business models and opportunities for private delivery of some weather and climate services based on outreach to sectors with needs for tailored information
- Analyze revenue generation opportunities based on country specific market analysis