

# Modeling the socio-economic value of meteorological information systems in resource-constrained settings

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# Work Done in May

- Refinement of full draft proposal:
  - Section 1 to Section 3

# Refined Statement of the Problem

- Socioeconomic value of meteorological information systems is influenced & influences various stakeholders
- Despite efforts to dev, deployment & use met IS & investments in ICTs, demo of socioeconomic value is not always obvious because it's determined by the capacity of the various stakeholders to make decisions and actions
- Stakeholder response capacity affects human & animal health & well-being
- Hence the need to study the dynamics surrounding the generation, delivery and use of meteorological information systems in order to create a better understanding of the problem among stakeholders and hence develop systemically embedded policy to tackle the problem

# Specific objectives

- Investigate the variables that influence the socioeconomic value of meteorological information systems in a multi-stakeholder environment.
- Design causal loop diagrams, which reflect relationships between the identified variables that influence each other in the process of creating value for stakeholders.
- Translate the CLDs into quantified stocks and flows to facilitate model simulation.
- Conduct sensitivity analyses by examining the influences among key variables in order to propose optimal/appropriate policy for increasing the value of meteorological information systems to selected sectors.

# Research Questions

- What are the factors that influence the socioeconomic value of meteorological information systems?
- Which relationships and causal dependences exist among the identified factors and are responsible for the problematic behavior as far as the socioeconomic value of meteorological information systems is concerned and therefore would provide key leverage points for policy to alleviate the problem?
- To what extent do the key relationships influence the socioeconomic value of meteorological information systems?
- Which relationships are indispensable in order to improve the socioeconomic value of meteorological information systems? To what extent would we need to adjust certain key variables in order to achieve the desired level of socioeconomic value of meteorological information systems?

# Study Scope

- The study will focus on exploring how the socioeconomic value of meteorological information systems is achieved and influenced through their role in informing policy, strategy and operational decisions and workflows in weather-induced human and animal communicable disease control programmes within a resource-constrained developing country context. We shall investigate the case for Uganda National Meteorological service and other related weather information providers who have been key in providing weather and climate information to the public health sector. The study will target districts with the highest incidence of weather-triggered human and animal ailments.

# Next steps

- June: Review & finalise section 2-3
- July: Submission of proposal for defence
- July: Design of research instruments
- Aug/Sept: Start field work

- Thank You