PLANNING WORKSHOP ON Impact-Based Forecasting and Climate Services

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Decision Support Systems and the Link to IBF

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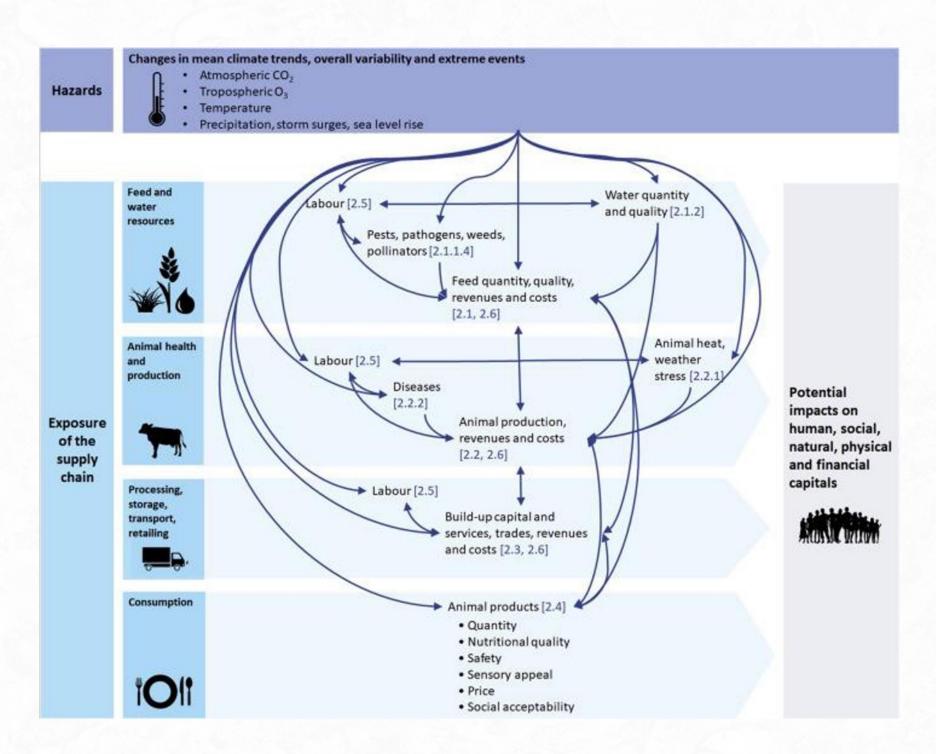
## Background

Weather systems impact citizens - across all aspects of society -everywhere in the world - all the time to a minor or major extent.



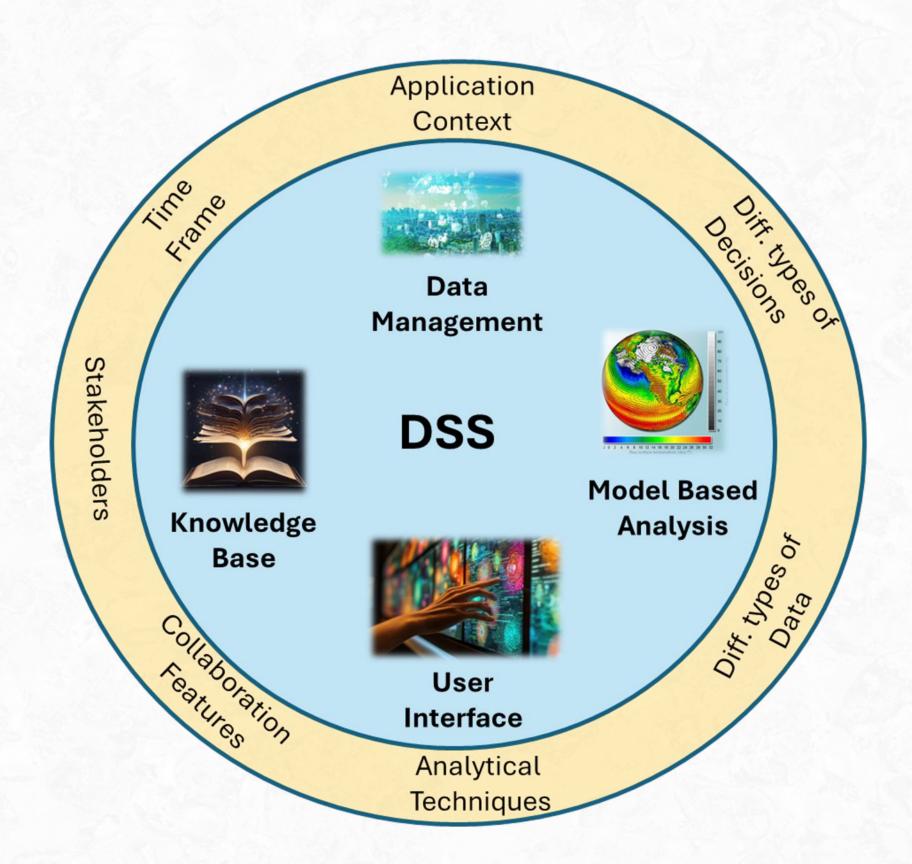
## Background

- Wide array of decisions
- While many decisions are straight forward, constantly new scenarios emerge and need to be evaluated
- Complex interactions to be considered in decisions (e.g. multi-hazard interactions)
- The temporal context matters



https://www.sciencedirect.com/science/article/pii/S2211912420301413

## **Decision Support Systems**



**DSSs** are computer-based information systems that help to analyse data, provide insights and support decision-making activities.

## **Decision Support Systems: Tools & Processes**

### Tools

- Secure data sharing
- Data Analytics
- Impact Assessment
- ScenarioAssessment
- Comparative trade-off analyses
- Visual communication

## Processes

- Stakeholder collaboration/engagement
- Co-production of Knowledge
- Framework for Decision-making
- Feedback/
  evaluation and
  refinement

#### **Decision Outcome:**

- Enhanced understanding of the problem and potential solutions;
- Discussion/consensus on interventions

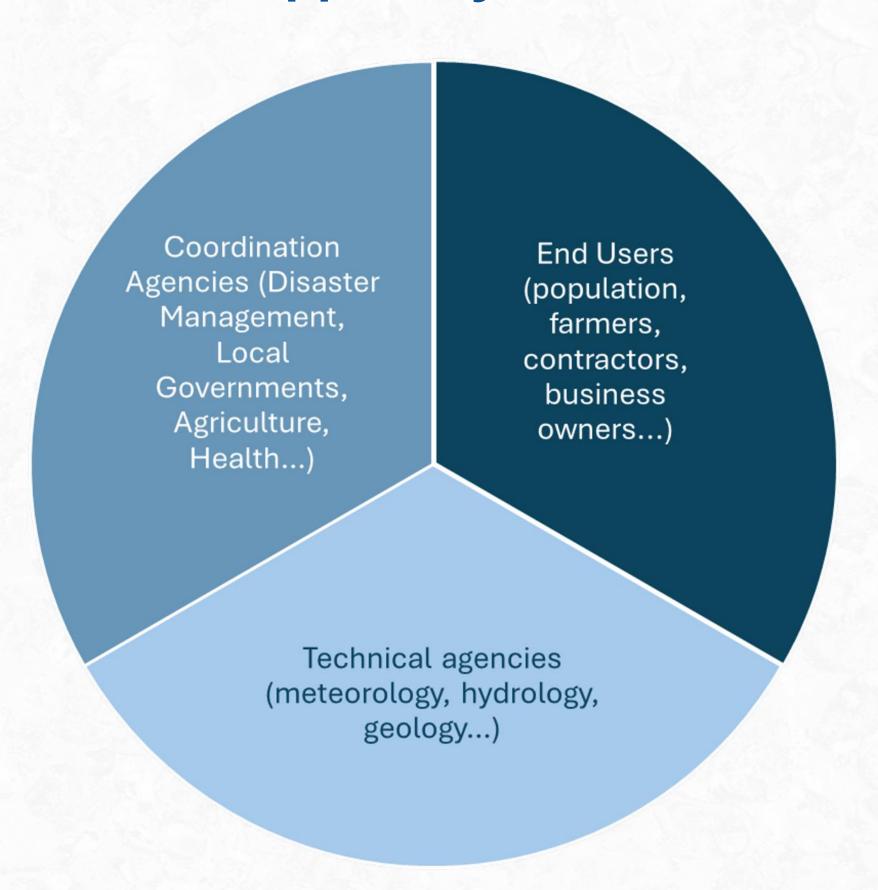
#### **Process Outcome:**

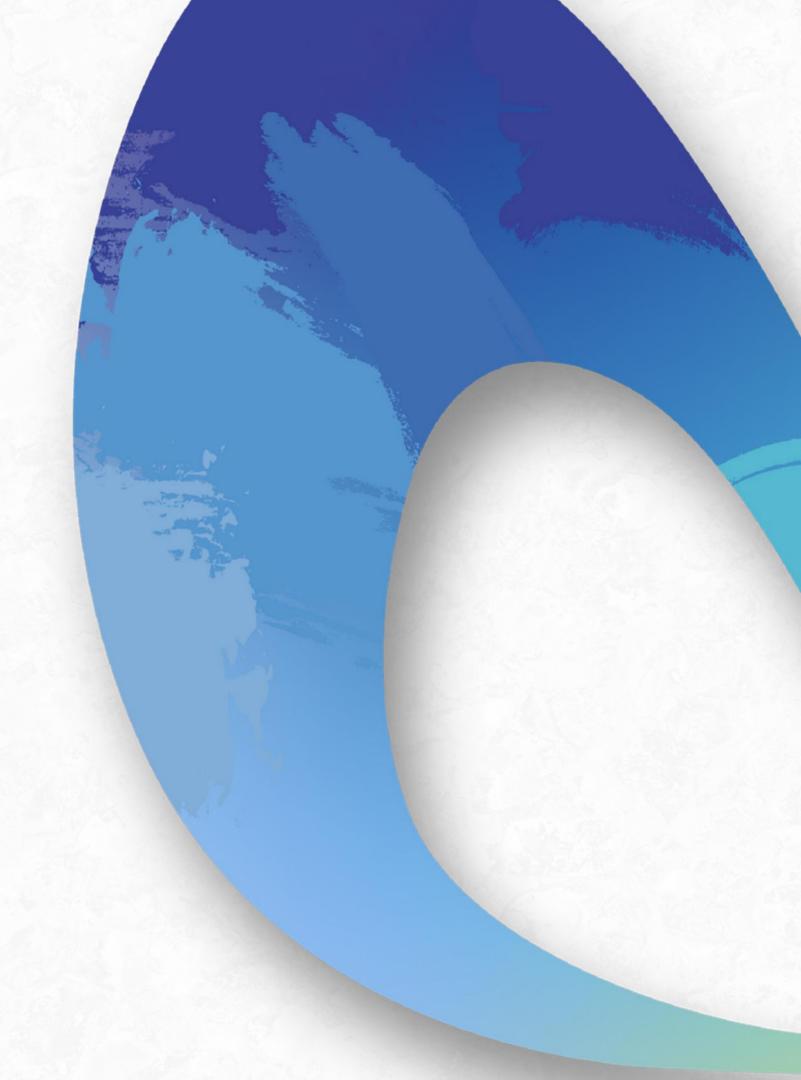
 Enhanced relationships, trust and communication among stakeholders

#### **Overall Outcome:**

Effective Decision Making

## **Decision Support Systems: actors**





# Opportunities DSSs offer for wider use of hydromet information and forecasts

- DSSs as tool facilitate interactions/collaboration among technical agencies, coordination agencies and end users.
- Everyone contributes their data/information and their knowledge/expertise.
- DSSs allow the user to manipulate data and ask / analyze complex questions.
- DSSs allow everyone including end users to provide inputs/feedback.

# Strengthening of DSS in the context of SAHF

A proposal to the "Climate Risk and Early Warning Systems - CREWS" Global Initiative has been prepared by WB, WMO, RIMES and UNDRR – currently with the SAHF Executive Council for review and endorsement



# One key activity: Establishment of a Virtual Regional Platform for hydromet-informed DSS:

- The region has already many successful examples of DSS (Tamil Nadu System for Multi-Hazard Potential Impact Assessment, Alert, Emergency Response Planning and Tracking TN-SMART, Mobilise in Sri Lanka, the Krishi DSS in India, an aquaculture DSS by IWMI etc.)
- What can we learn from each other?
- Can we collaborate and align our activities to create synergies and achieve a greater impact in the region?

# Strengthening of DSS in the context of SAHF

## Establishment of a Virtual Regional Platform for hydromet-informed DSS to:

- establish exchange and collaboration among all interested actors active in this field, including WB, RIMES, SAHF, WMO, IFRC, University of Salford, ICIMOD, ESCAP, UNDRR, IWMI, WFP, ADPC etc.
- extract lessons learnt and develop blueprints/frameworks that can be implemented at the country and subnational level for the co-creation, experimentation and validation of DSSs
- establish a regional DSS for training and experimentation purposes enabling government officials (technical and decision-making levels) to better understand the opportunities DSS offer
- → Close collaboration with the IBF activities being planned in this workshop

