

Scoping Meeting Agricultural Risk Assessment

7 - 9 February 2017 - Boulder, Colorado

The new conceptual model

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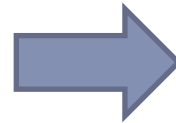
The Conceptual Model

Hazard

Climate Change



Climate Series



- ✓ P – ETo–Temp. Gridded series
- ✓ Reanalysis
- ✓ Coupled stochastic generator

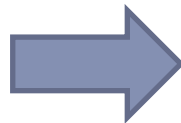


Flood



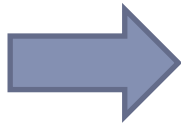
Water balance
Ground water
Hydrological Drought

Land degradation



Dust/Sand storms

Forest fires



Function of duration?

Wind (tropical cyclones)

The Conceptual Model

Exposure

Crops



- ✓ Rainfed (type, seasonality, cost)
- ✓ Irrigated (time threshold for effective irrigation)
- ✓ Availability of water sources

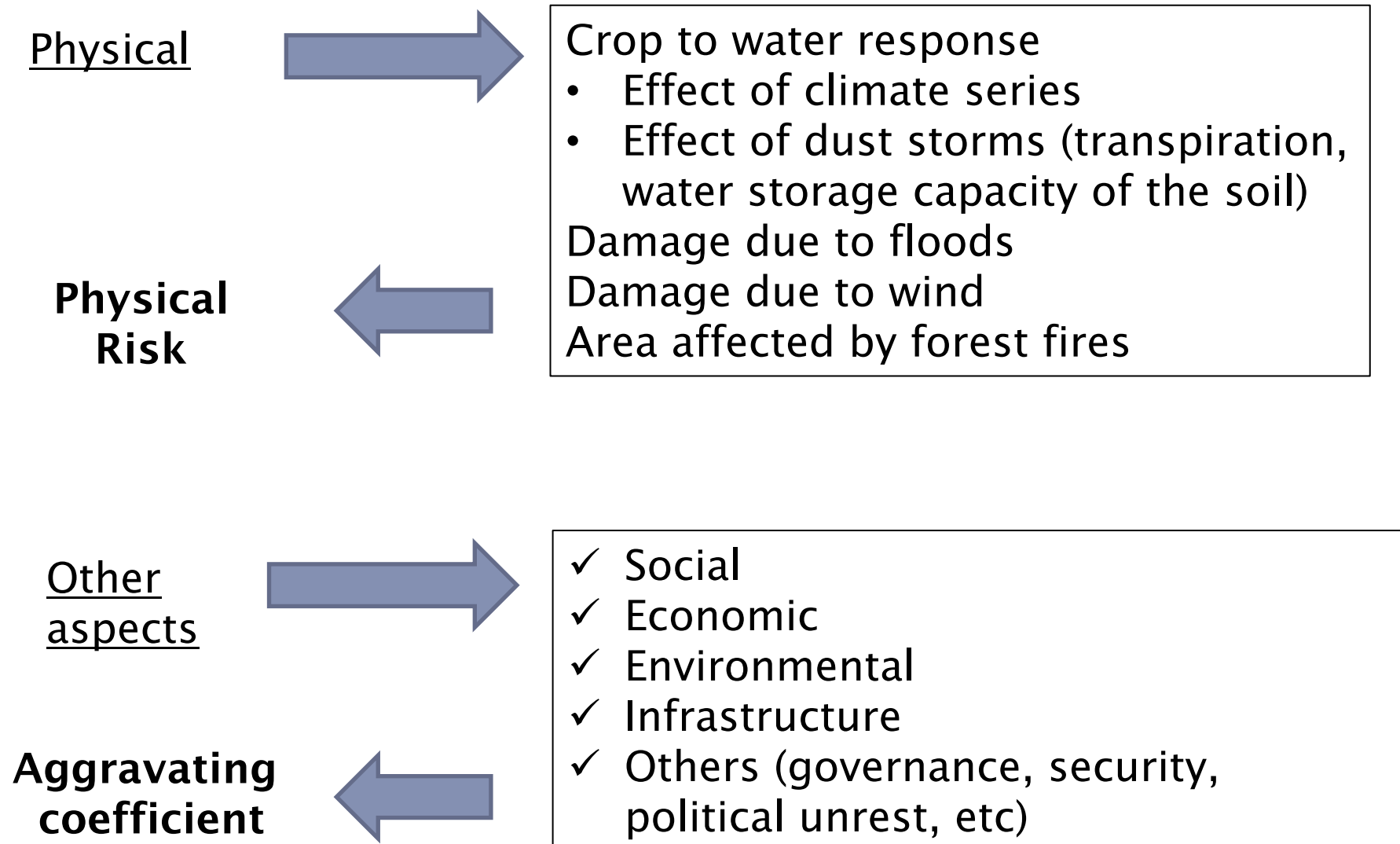
Livestock



- ✓ Rangelands
- ✓ Energy (calories)
- ✓ Total energy requirement for animals
- ✓ Categories of livestock included

The Conceptual Model

Vulnerability



The Conceptual Model

Risk calculation

Physical
risk



Probabilistic loss assessment
approach

Total
risk



Holistic approach

Validation

- State of the art review by the WB
- Benchmark
 - Case studies
 - UCI (Amir's) approach