

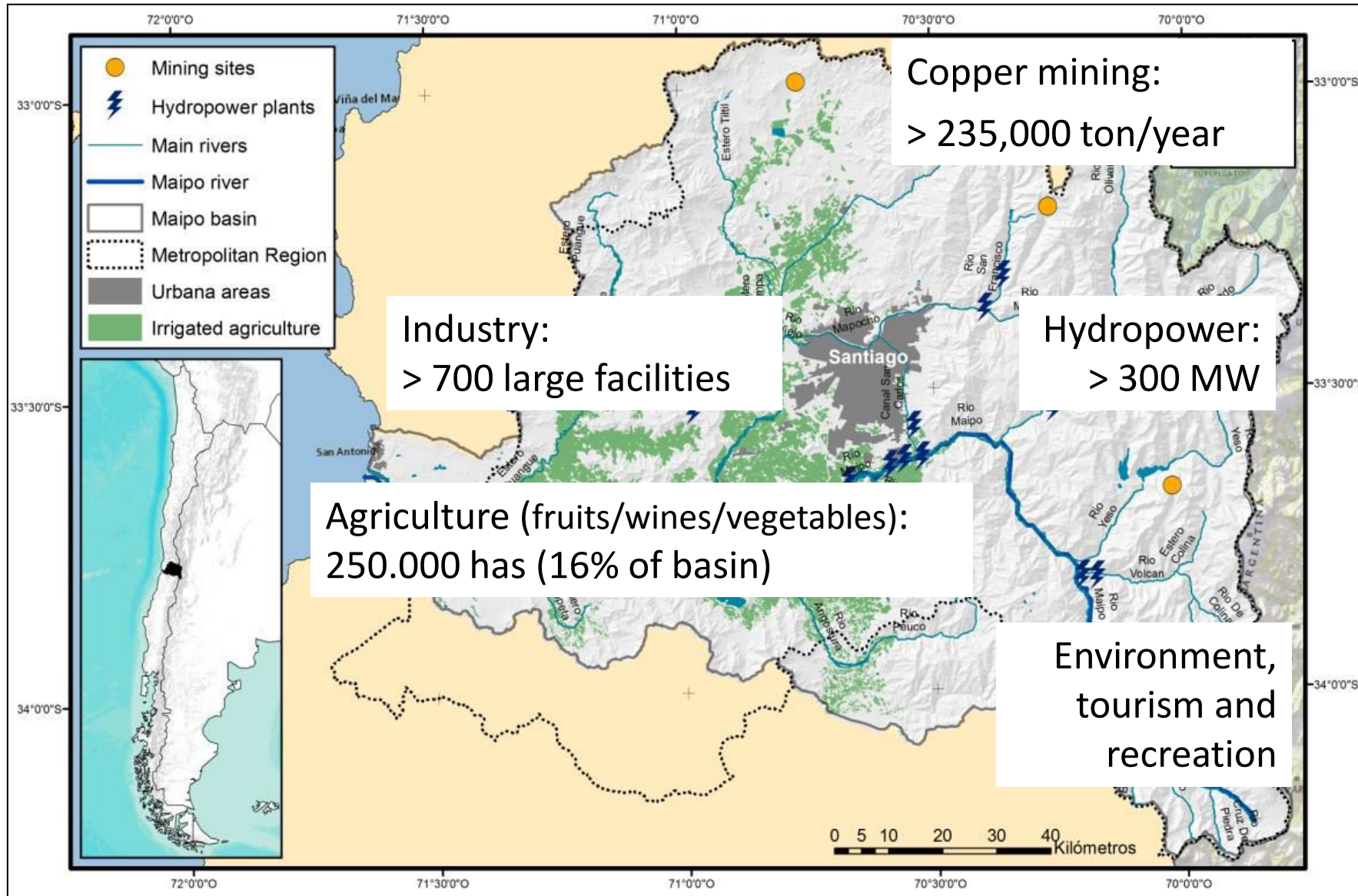
# Water security indicators for a climate variability and climate change adaptation process in the Maipo River basin in Central Chile

S. Vicuna, A. Ocampo-Melgar, J. Gironas

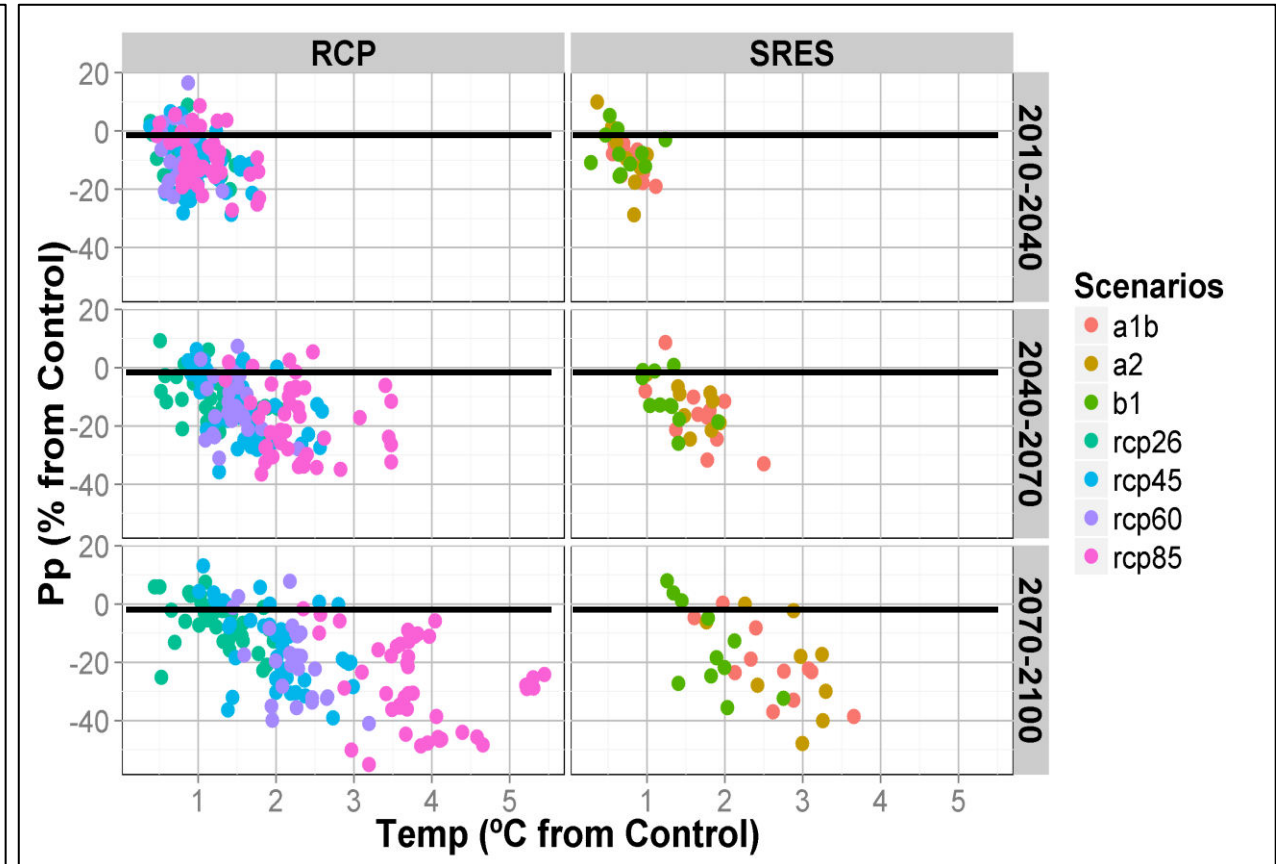
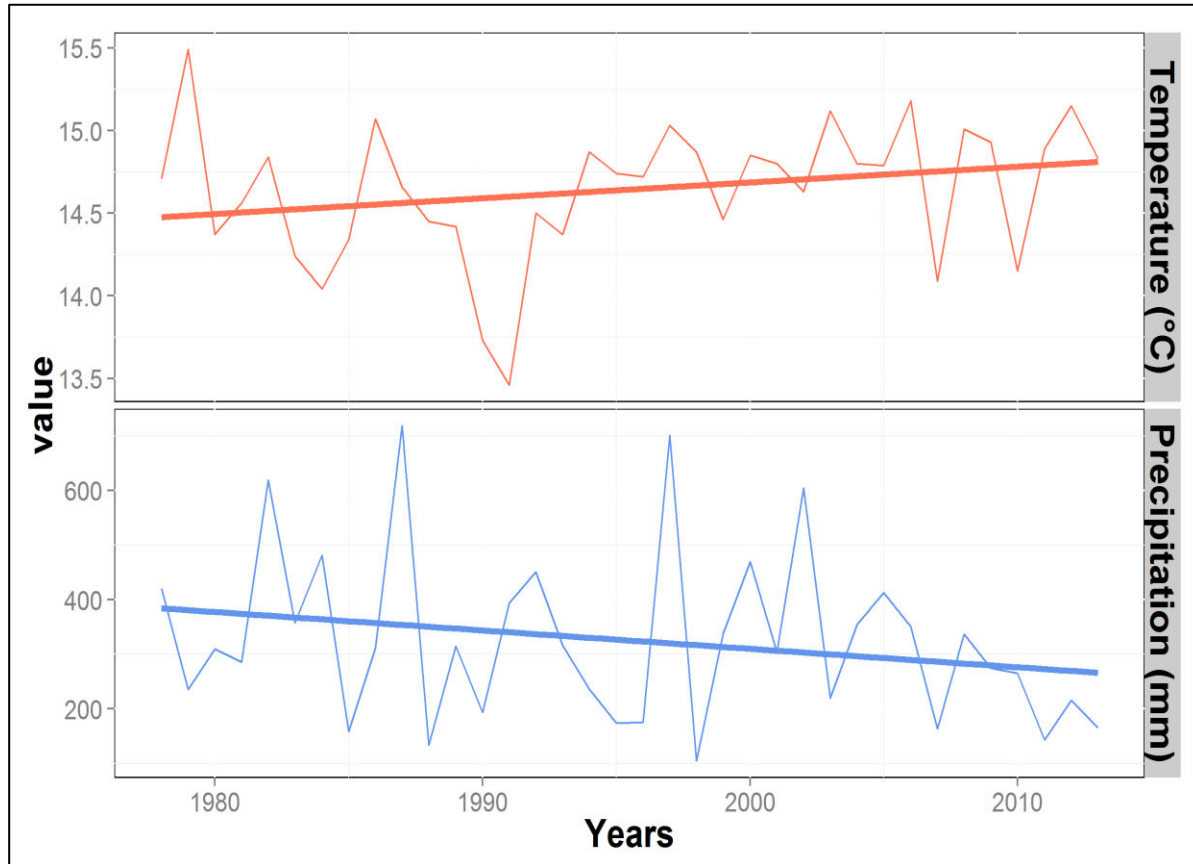
World Water Congress XV. PS11.2 Key vulnerabilities and security risks: Participatory approaches



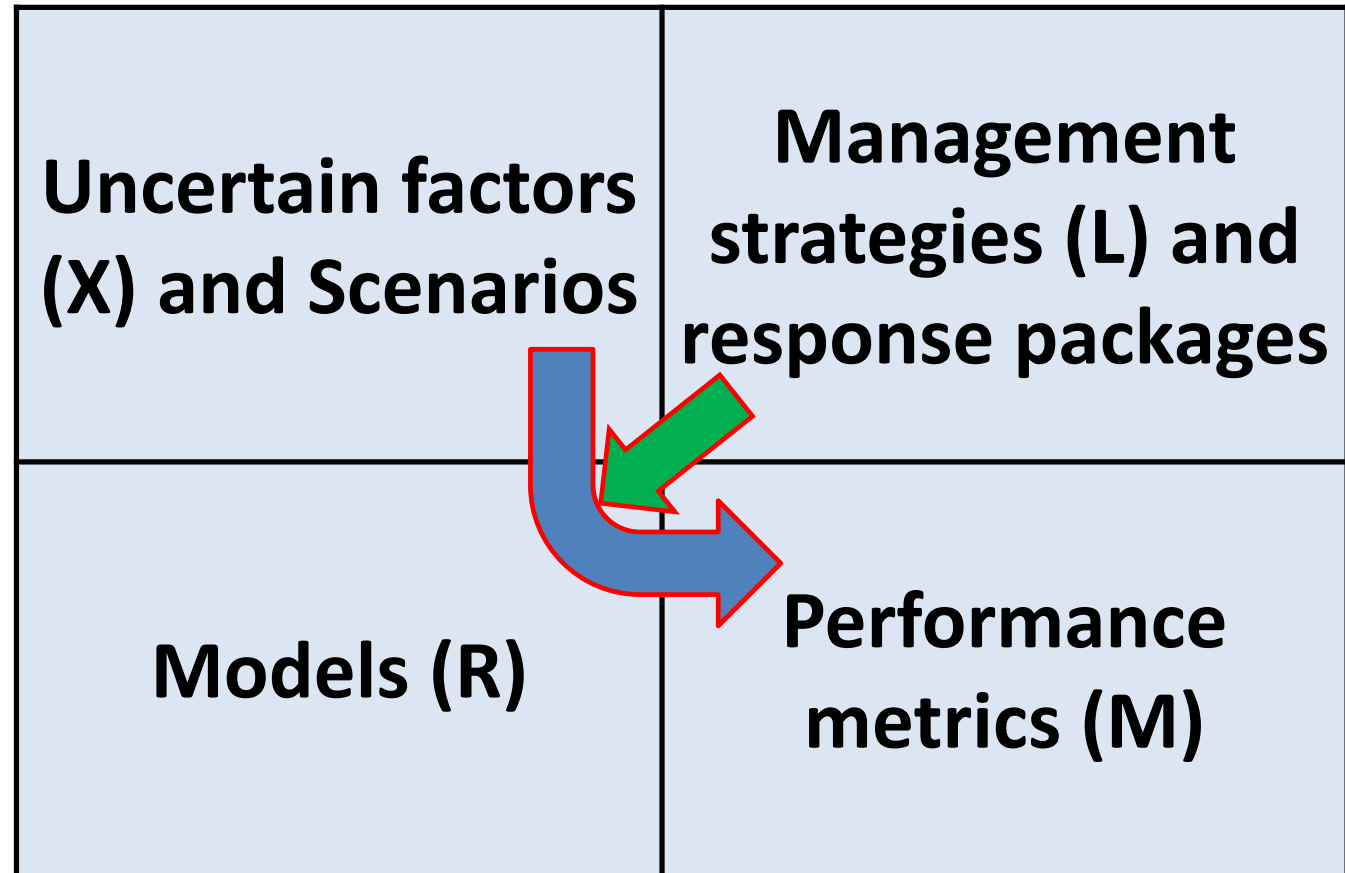
# Maipo basin... a complex basin



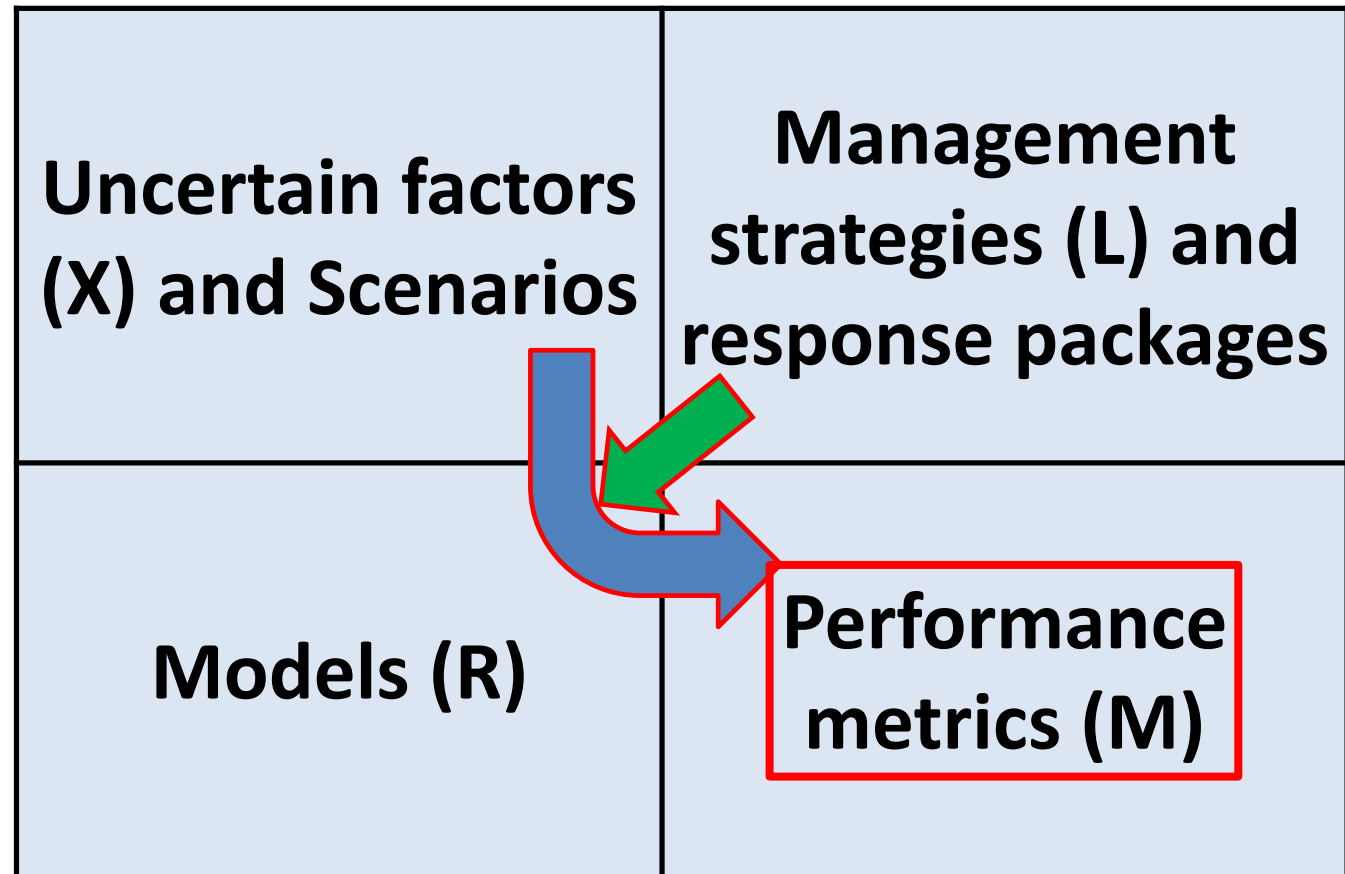
...with current and future climate concerns



# Key elements to construct within an RDM adaptation framework



# Key elements to construct within an RDM adaptation framework





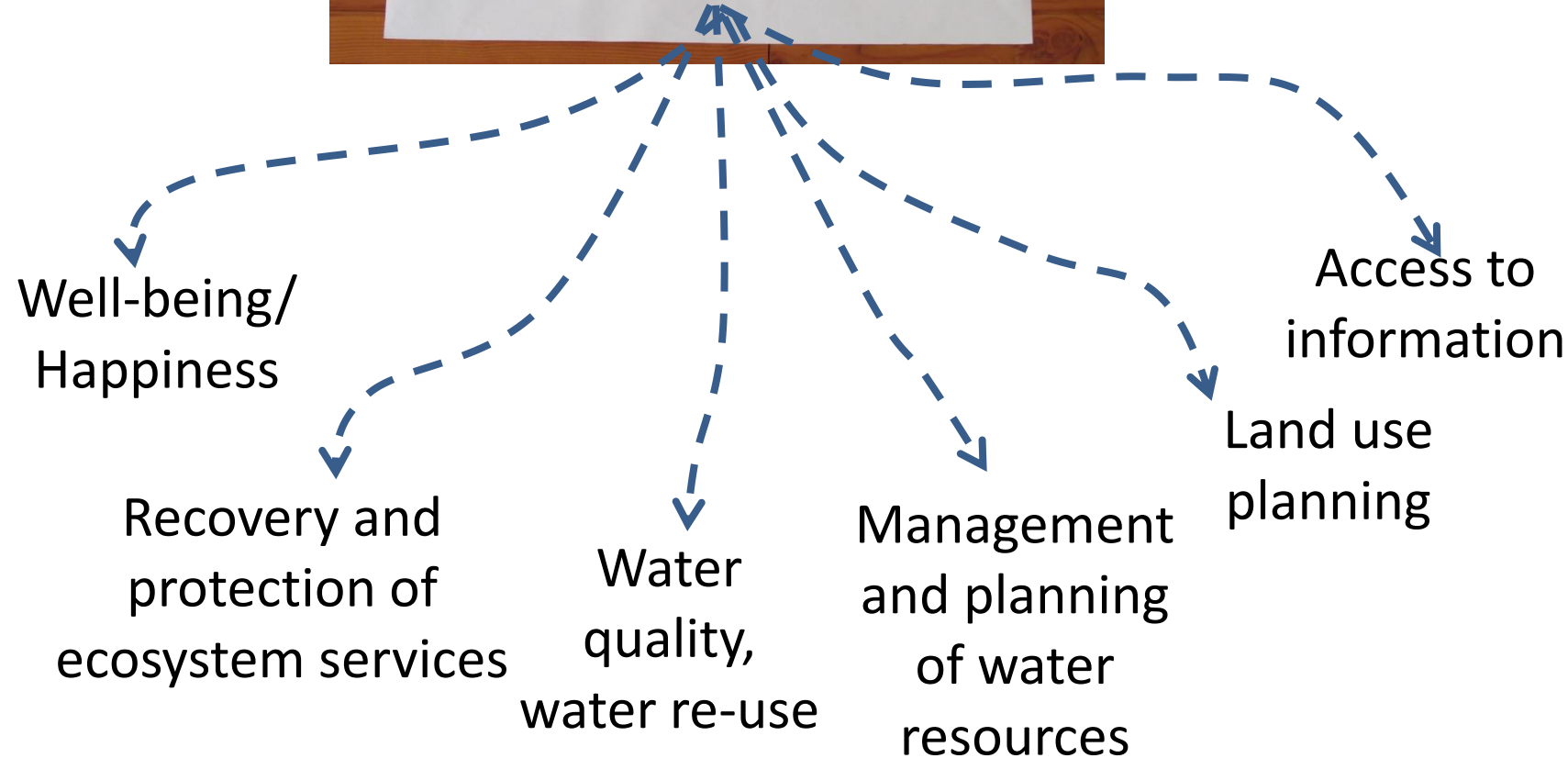
# Performance metrics construction

- Participatory process started by open question: “which are the characteristics of our vision of the future for the basin?”



Which are the characteristics of our vision of the future for the basin?

¿Cuáles son las principales características de nuestra visión de futuro de la cuenca?



# Performance metrics construction

- Participatory process started by open question: “which are the characteristics of our vision of the future for the basin?”
- Water Security arise as a key integrating concept



# Performance indicators and Water Security

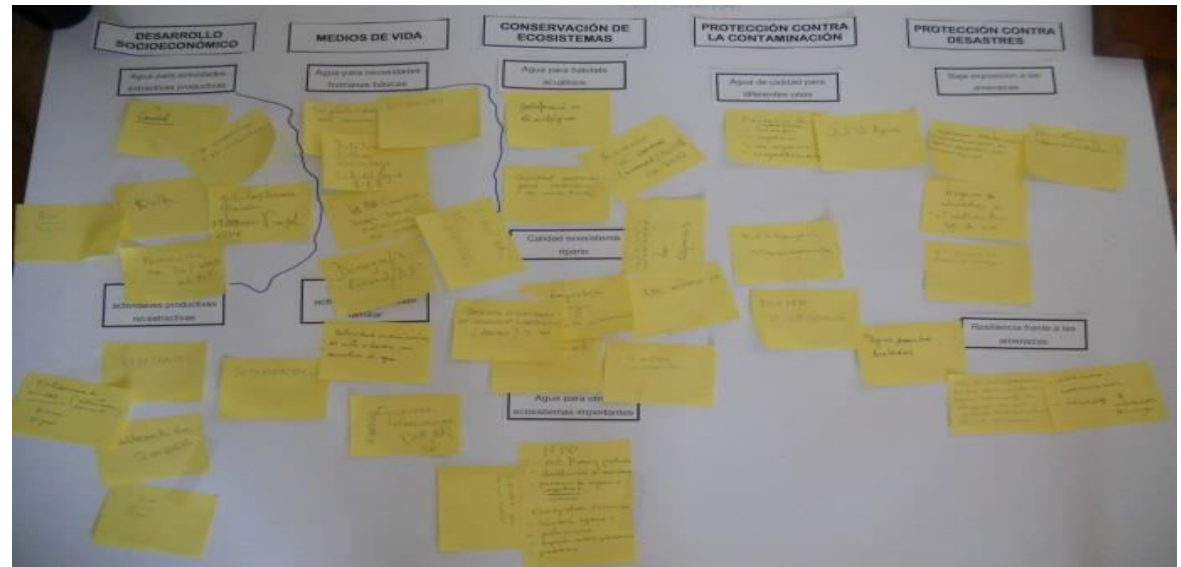
The capacity of a population to safeguard sustainable access to adequate quantities of acceptable quality water for **sustaining livelihoods, human well-being, and socio-economic development**, for ensuring **protection against water-borne pollution and water-related disasters**, and for **preserving ecosystems** in a climate of peace and political stability.

(UN-Water, 2013)



## Key components of Water Security

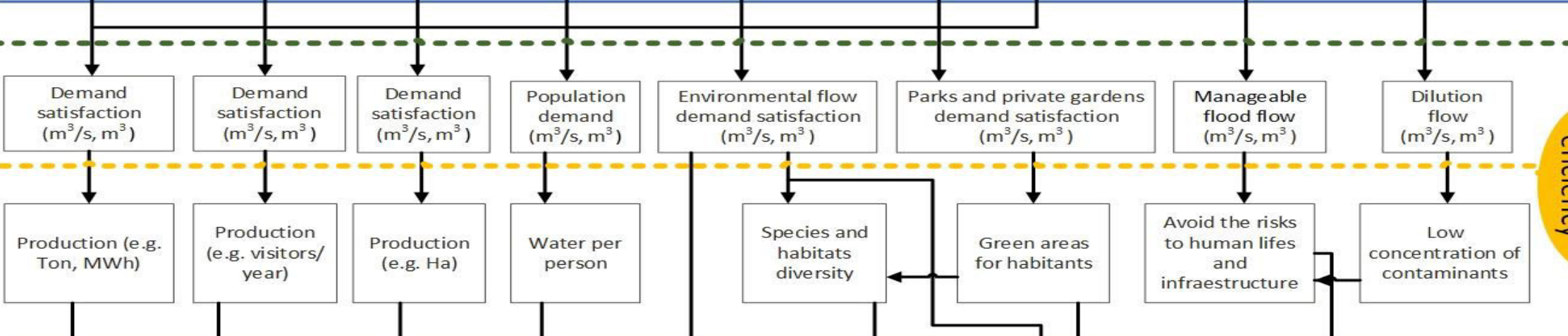
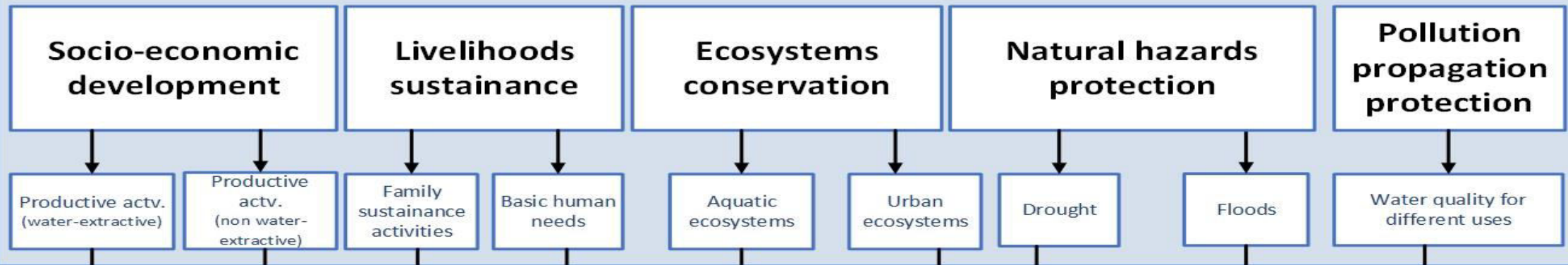
Water as a resource	Sustain Livelihoods
	Sustain Socio-economic development
	Preserving ecosystems
Water as a threat	Protection against pollution
	Protection against water-related disasters



# Performance metrics construction

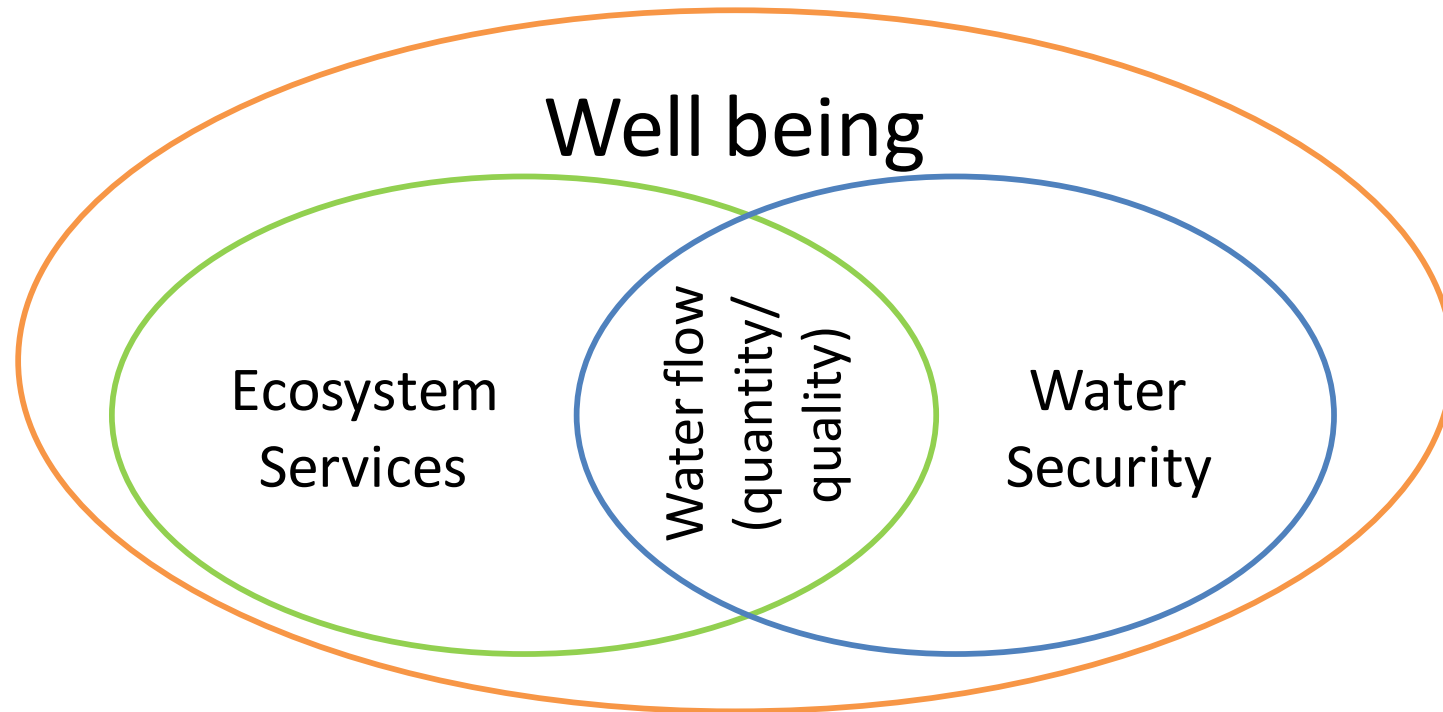
- Participatory process started by open question: “which are the characteristics of our vision of the future for the basin?”
- Water Security arise as a key integrating concept
- Details were added to consider of cause-effect connections to well being and ecosystem services

# Water security



Productivity/  
efficiency

# Water security, ecosystem services and well-being connections

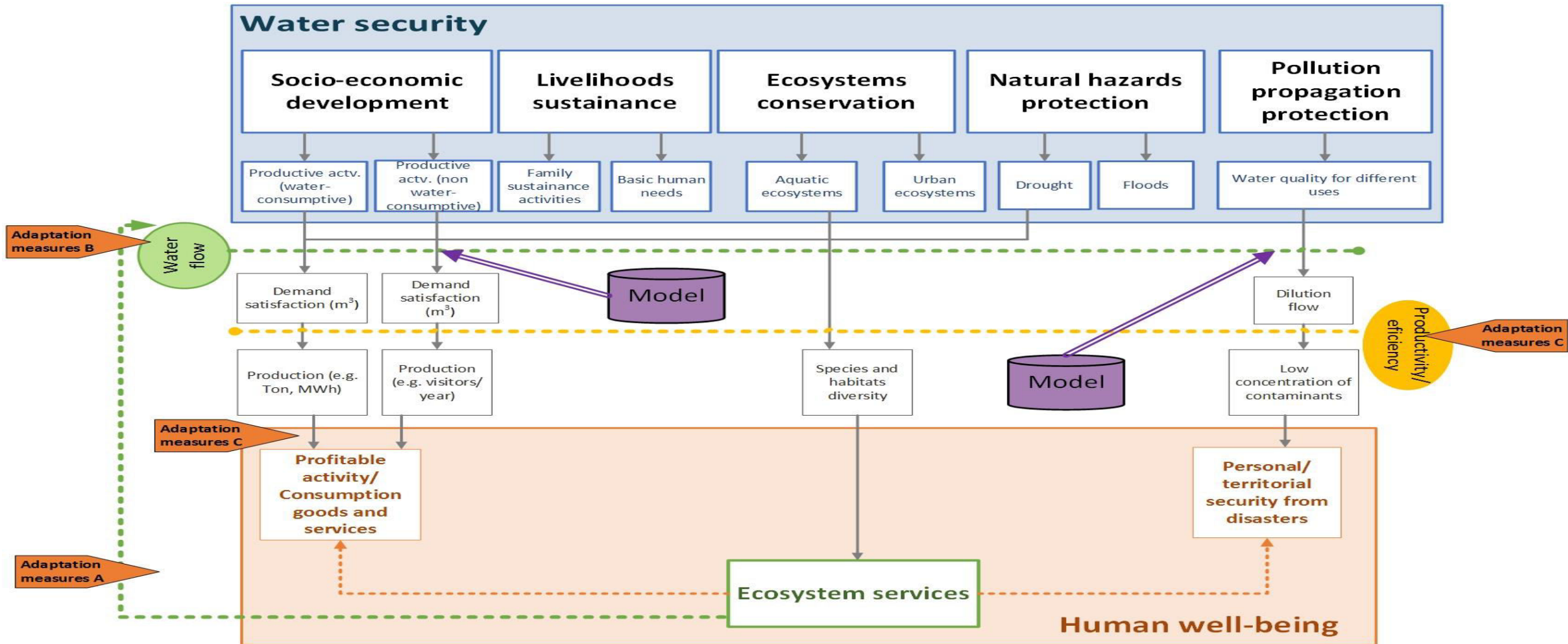


# Performance metrics construction

- Participatory process started by open question: “which are the characteristics of our vision of the future for the basin?”
- Water Security arise as a key integrating concept
- Details were added to consider of cause-effect connections to well being and ecosystem services
- Also needed to connect to other components of the overall RDM process



# Connections to other RDM components



# Conclusions

- The objective of the MAPA project is to build a climate change and climate variability adaptation plan for the Maipo basin
- Key in the adaptation process is understanding key vulnerabilities represented through performance metrics
- Through a participatory approach we developed a framework for performance metrics based on the concepts of water security, ecosystem services and human well being that allows the identification of all stakeholders perspectives and a easy connection to other elements of the adaptation process

# Muchas gracias!

