



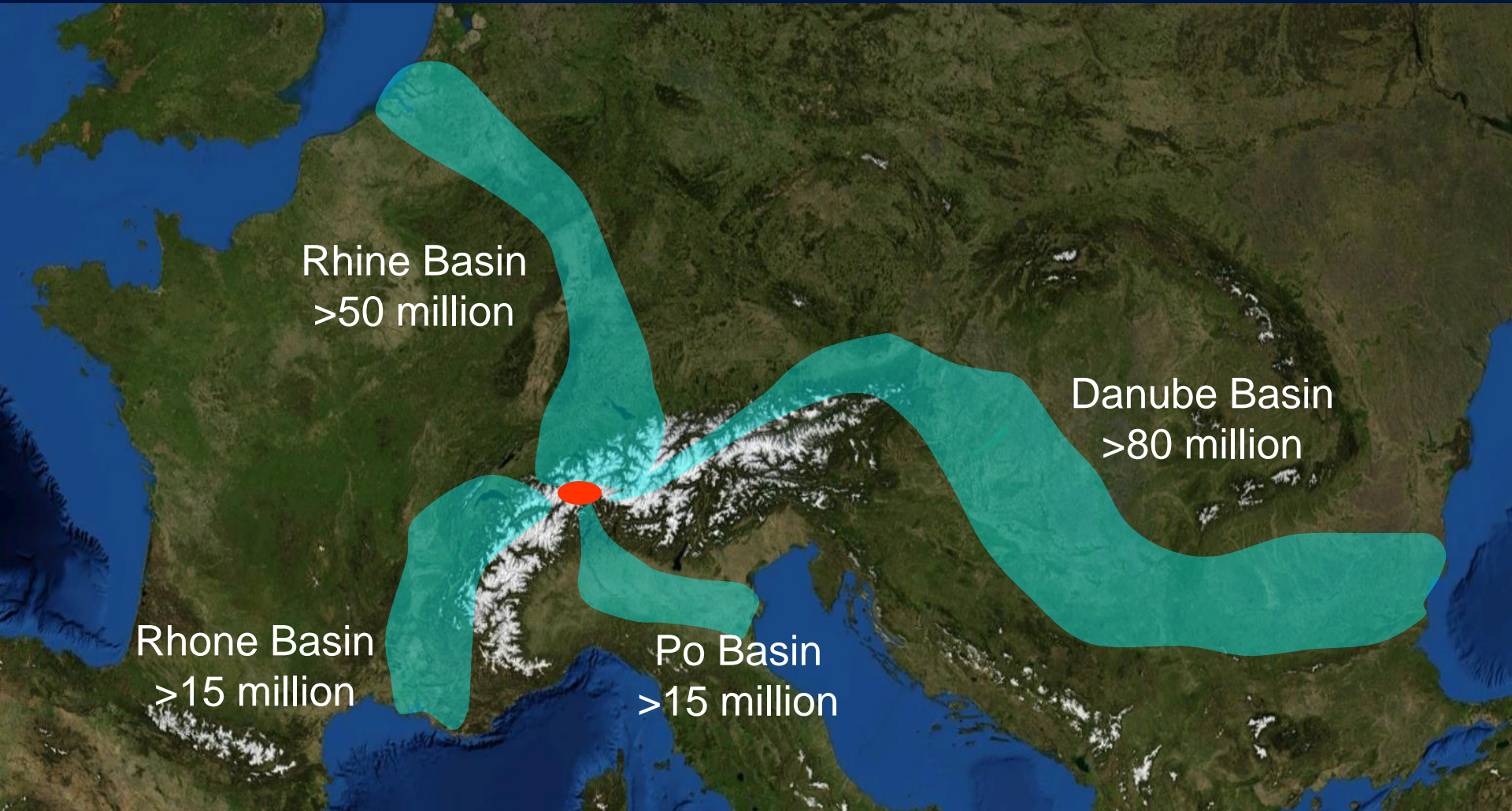
# Requirements for basin-wide socio-economic scenarios

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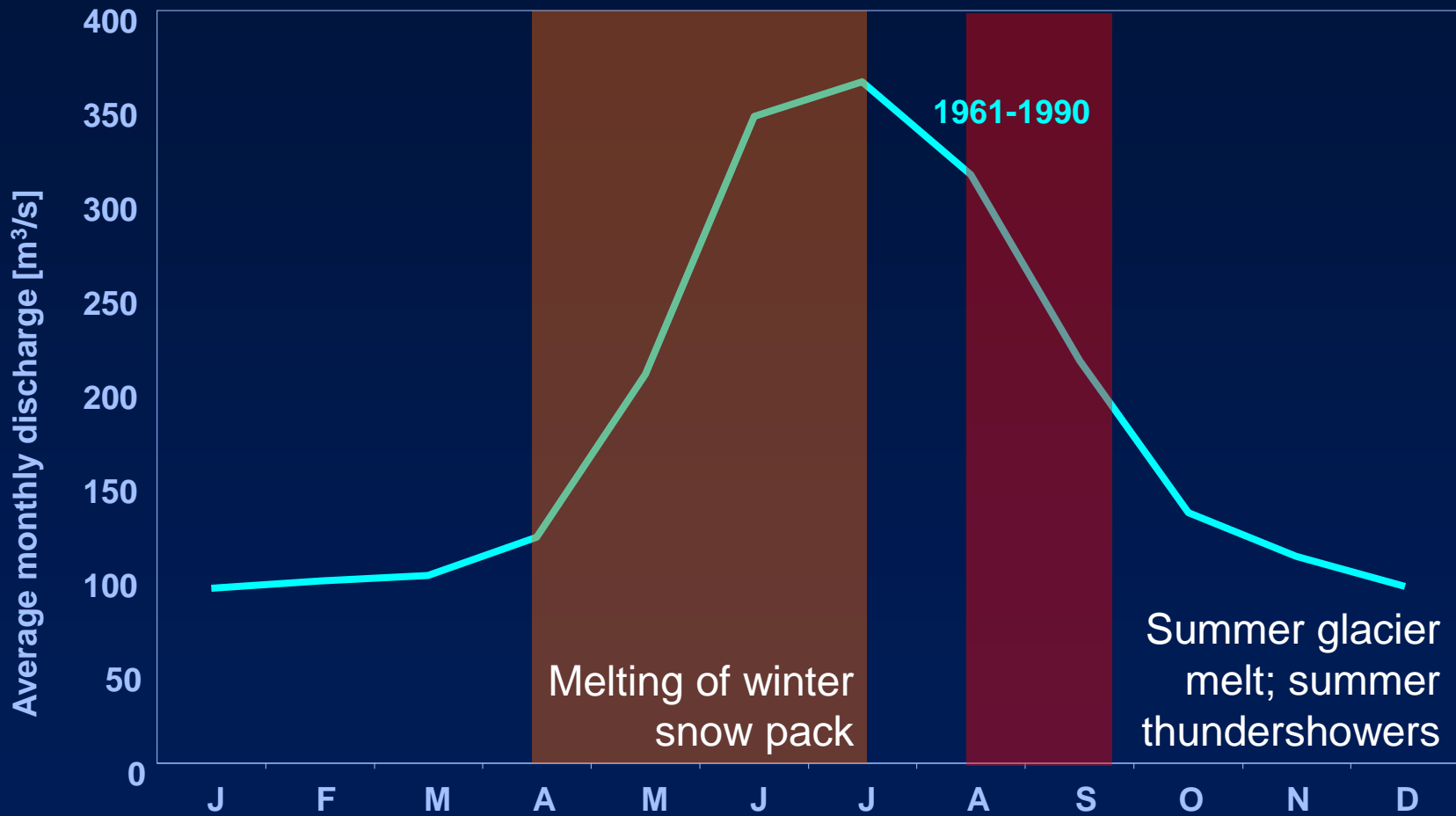
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An example of scenario-based  
projections: the Swiss Rhone catchment  
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An example of scenario-based

# Upstream-downstream links



# Rhone River discharge in the 1961-1990 reference climate

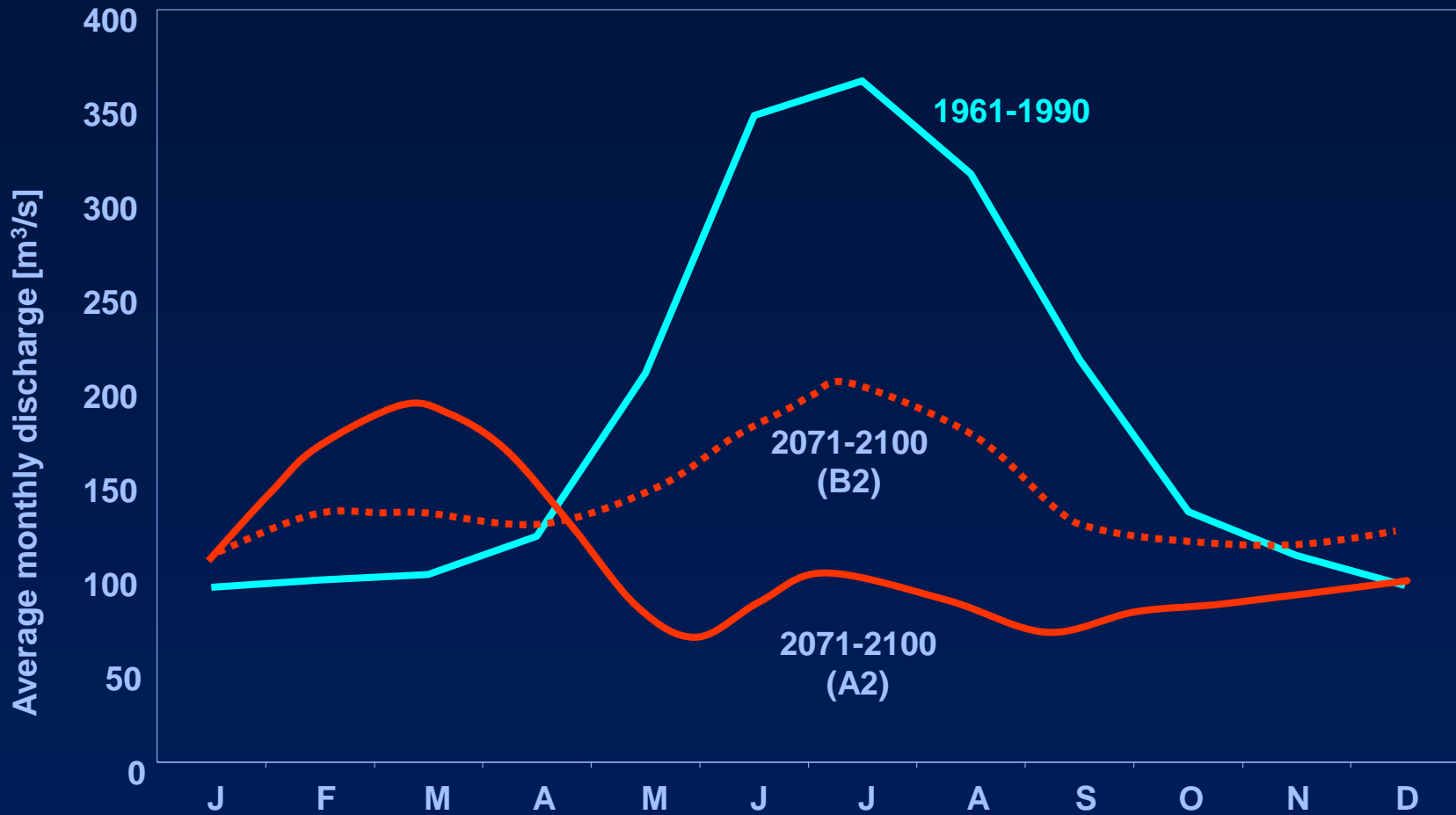


Beniston, 2010: Journal of Hydrology

# Impacts of climatic change on on Rhone-Basin hydrology

οι βροχε-βασιν μλαιοοδλ  
impacts of climatic change on

# Possible future discharge by 2100 (m<sup>3</sup>/s, River Rhone)



Beniston, 2010: Journal of Hydrology

# Requirements for socio-economic scenarios

ECONOMIC SCENARIOS

Requirements for socio-

# The Rhone River catchment



95,000 km<sup>2</sup>; 16 million inhabitants

Swiss segment: 10,100 km<sup>2</sup>  
1.2 million inhabitants

## Environmental Controls

Climate

Glaciers

Snow

Vegetation

Geomorphic

Runoff

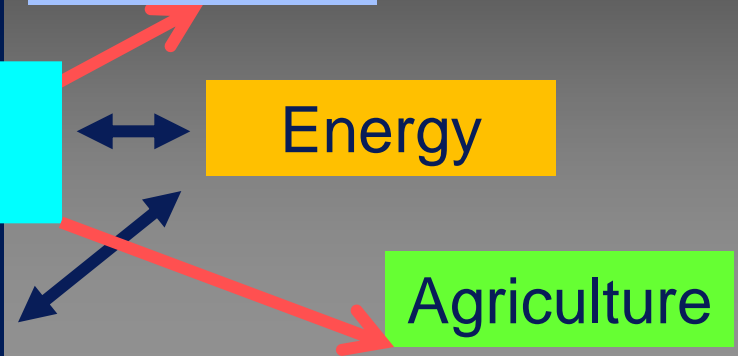
Extremes

## Economic Controls

Tourism

Energy

Agriculture





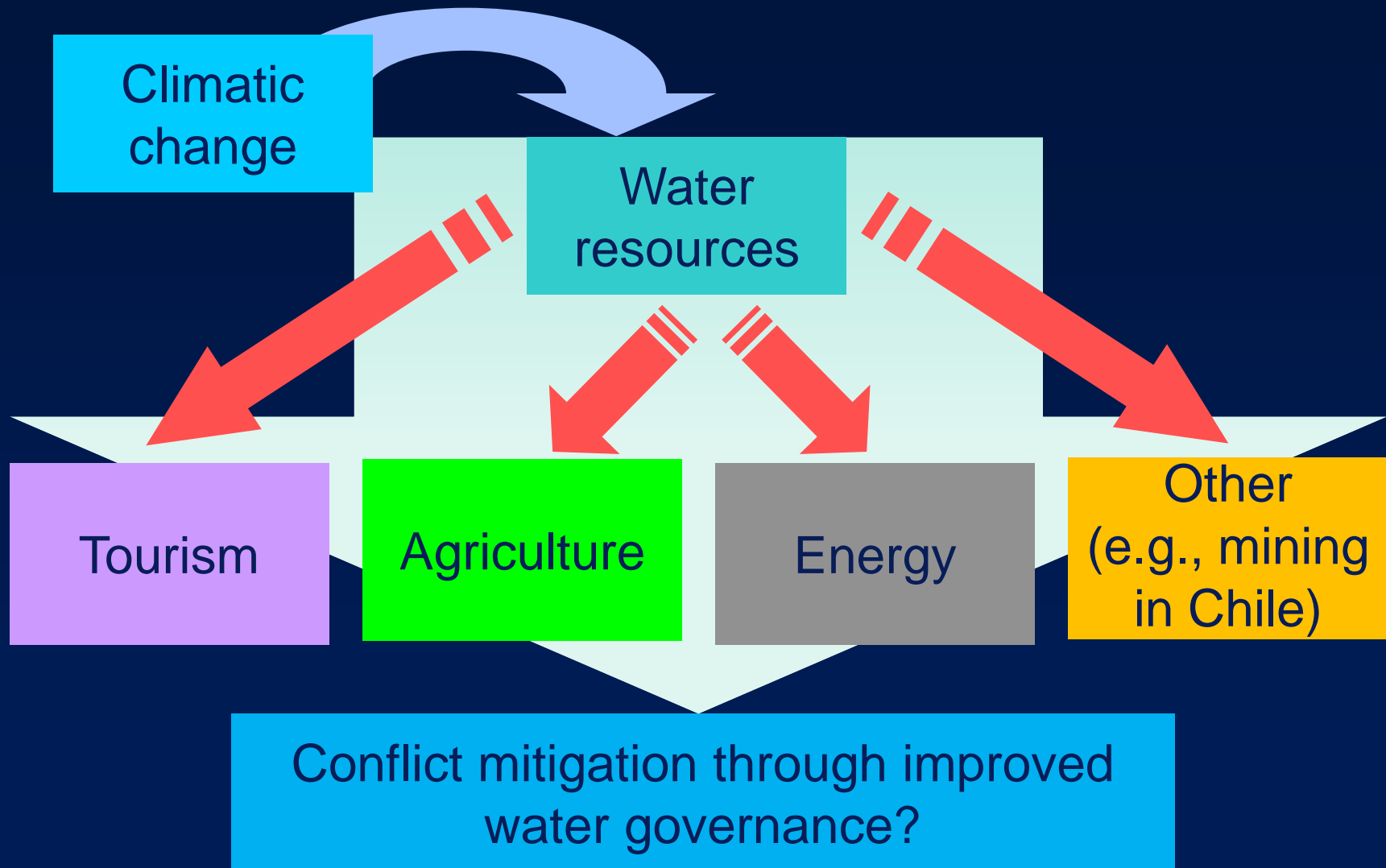
# Problems with socio-economic scenarios

- Socio-economic information often lacks a homogenous structure, unlike climate or environmental data:
  - ◆ Variable in space and time, according to the customs in force in a particular sector (i.e., often difficult to represent on a geographic grid as for environmental data...)
  - ◆ Often not in digital format
- Confidentiality of data frequently limits its distribution to 3<sup>rd</sup> parties (e.g., hydropower sector)
- Bodies beyond academia should also strive towards more accessibility of such data!

Necessity for appropriate scenarios:  
looking to new water governance strategies

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necessity for appropriate scenarios:

# Rivalries between economic sectors impacted upon by changing water resources?



Many thanks for your attention



The poster features a central image of a mountain lake with a reflection of the surrounding peaks. To the right of the image are three logos: the European Union flag, the FP7 logo, and the Université de Genève logo. Below the image, the text reads: 'Assessing Climate impacts on the Quantity and quality of WAter' and 'A large integrating project under EU R&D Framework Programme 7 (FP7)'. The title 'ACQWA' is prominently displayed in large white letters on a blue background.

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