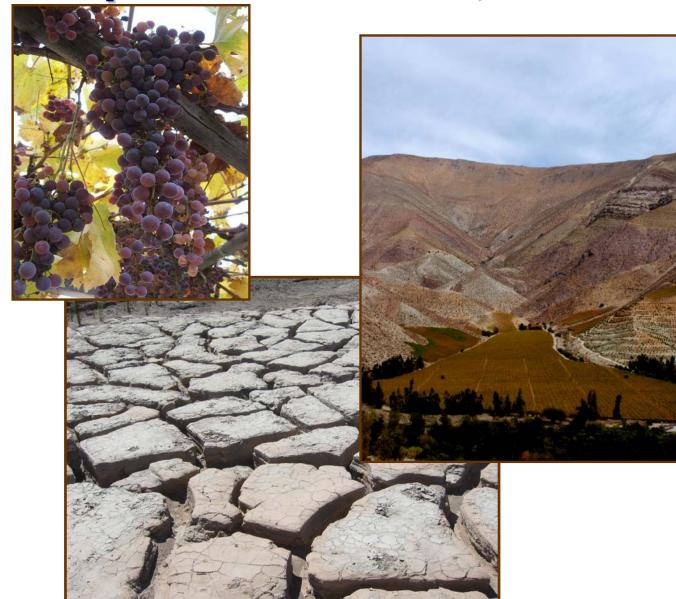
Community Vulnerability in the Elqui River Basin, Chile



Gwen Young University of Guelph, Ontario

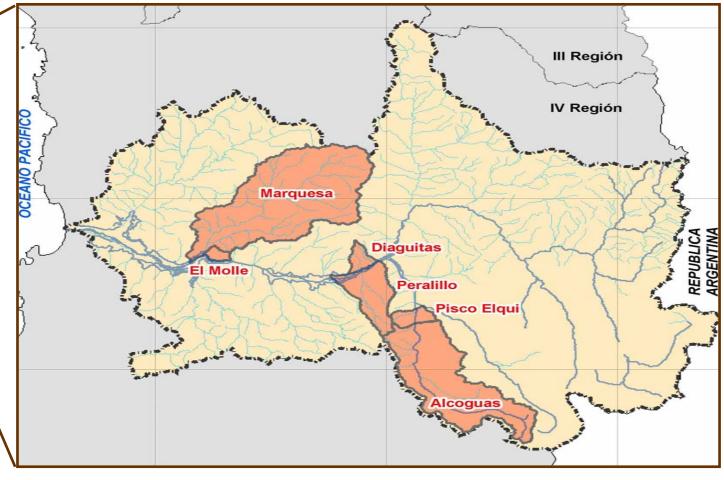
Isla Sala y Gomez **BOLIVIA** Iquique Antofagasta* Nevado Ojos del Salado Huasco_ SOUTH **PACIFIC OCEAN** Valparaíso, SANTIAGO San Antonio Rancagua San Vicente ARCHIPIÉLAGO JUAN FERNÁNDEZ **ARGENTINA** Talcahuano_ Concepción Lebu Temuco Puerto Montt SOUTH **ATLANTIC OCEAN**

Elqui River Basin, Chile



Elqui River **Basin**

Community Case Studies



Water Source and Distribution System

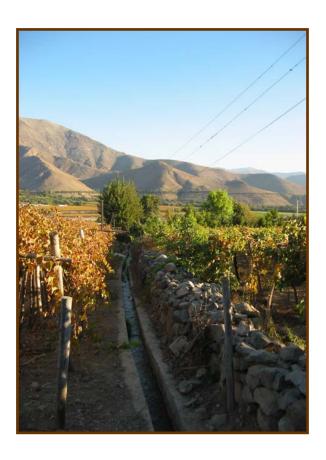








Irrigation









Community Exposures









Community Exposures



Community/Individual Adaptations

"Here in Chile we adapt to everything" – Resident of Diaguitas

- Take Precautions
 - Reinforce homes, buy extra food and batteries
 - Barrels full of potable water
- Migrate
- Women working for wages
- Technology
- Taking advantage of subsidies
- Neighbours help each other

Institutional Adaptations

- Protective Structures
- Education (radio announcements and bulletins)
- Subsidies
- Reduce Water Supply
- Water Delivery

Institutional Adaptation





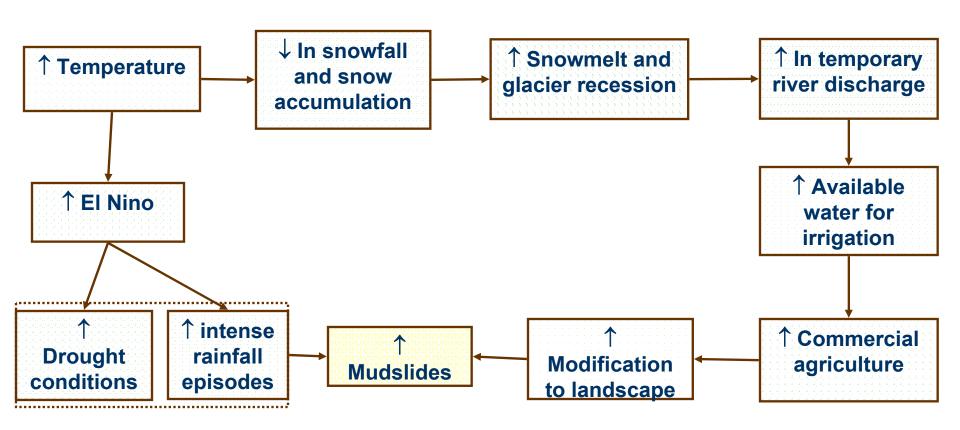
Constraints of Adaptive Capacity

- "There is no institutional capacity" employee of a water governance institution.
- Lack of institutional coordination
- Short-term planning
- Limited information and resources
- Little community organization
- Community segregation/tension

Climate Change & Future Exposures

Climate-	Expected
Related Risk	Change in
	Future
El Nino	\uparrow
Drought	\uparrow
Average	
Precipitation	\downarrow
Temperature	↑
River	↑Short-Term
Discharge	↓Long-Term

Climate Change & Future Exposures



Summary of Research

- Exposures stem from multiple scales and influences.
- Although Diaguitas is a dryland area, waterrelated exposures were not strongly identified.
- Vulnerability varies between communities and community members.
- The role of institutions with respect to adaptive strategies appeared weak at the community level.
- Future conditions are not a strong concern for the community, agri-business and institutions.

