

# EXPLORING THE RELATIONSHIPS BETWEEN LIVELIHOOD DIMENSIONS AND SOCIO-ECOLOGICAL RESILIENCE IN THE BOLIVIAN ALTIPLANO

Nathan Jensen

Dr. Corinne Valdivia, Thesis Supervisor

## ABSTRACT

Households in the Bolivian Altiplano construct their livelihood strategies in a system marked by changing climate and volatile social systems. The strategies that they choose must work to decrease the household's vulnerability to shocks, such as drought and frost, and increase its ability to adapt to longer term changes, for instance the affects of globalization. Their strategies may also influence the resilience of their community and environment, either increasing or decreasing the likelihood of catastrophe.

This research uses canonical correlation analysis to analyze survey data collected from 330 rural households in two regions of the Bolivian Altiplano. It examines the impact that dominant livelihood strategies have on the resilience of the household and its socio-ecological environment. The analysis shows that access to land and lifecycle are two household characteristics most highly associated with resilience, that diversification into labor markets often works towards increasing resilience, and that many households use livestock as an insurance mechanism. The results suggest that policies that work towards increasing crop yields and livestock loss in the face of climate change could effectively target the households that are most vulnerable. Programs that include transfer payments to older households for providing services, such as increasing ecosystem resilience by placing land in fallow, could reduce the impact of lifecycle that impacts many households across both regions.