Family mountain farming between melting glaciers, an Andean metropolis and the world market – a case study from the Cordillera Real in Bolivia

Dirk Hoffmann∗

1Bolivian Mountain Institute (BMI) – Casilla 3-12417, La Paz Calle 4 "Sajama", No. 5. Urb. La Barqueta, Achumani, La Paz, Bolivia

Abstract

In this case study from the Tuni Condoriri region of the Cordillera Real we present results from the first phase of research undertaken by the Bolivian Mountain Institute - BMI as part of the socio-economic research thread of the international research project "BIOdiversity and people facing climate change in Tropical High Andean Wetlands (Bio-THAW)" coordinated by the IRD (Institut de recherche pour le développement) in Bolivia. The Tuni Condoriri region covers an area of approximately 730 km², and is part of the Cordillera Real in Bolivia’s Eastern Andean mountain chain, with heights going up to over 6,000 meters. It is home not only to a unique high mountain biodiversity, but also to numerous indigenous Aymara communities that have practiced livestock herding and subsistence agriculture for centuries. Tuni Condoriri has been declared a National Park as early as 1942, even though until today the area has never seen any park management installed.

Over the past two decades, the Tuni Condoriri region has seen vast changes, partly due to global warming, partly due to outmigration and the effects of the world market for minerals. With agriculture and herding having become economically less important, dependence on cash income and urban markets for buying food stuffs has increased, diminishing community’s resilience. At the same time, the ever increasing demand of water from La Paz and El Alto puts an additional strain on already scarce hydrological resources, pushing up the potential for urban-rural conflicts over water rights and use.

We will be analyzing mountain farmer’s family economy and communal social structure in a changing environment, which is characterized by the impacts of glacier recession and climate change, altered ecosystems, increasing water demand of the urban population of nearby La Paz – El Alto (2 Mio inhabitants) and the spreading of small and medium sized mining activities following the recent rise in world market prices. Note: This abstract is intended to be part of the session "Andean communities in the face of global change: Risks, uncertainties and opportunities for transformation", chaired by Diana Sietz of Wageningen University

Keywords: Global change, adaptation to climate change, social, ecological systems, community engagement, sustainable development

∗Speaker