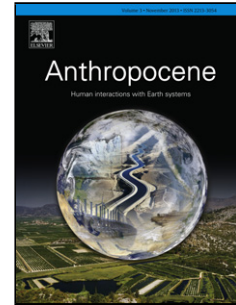


## Accepted Manuscript

Title: A hybrid-epistemological approach to climate change research: Linking scientific and smallholder knowledge systems in the Ecuadorian Andes

Author: <ce:author id="aut0005"  
author-id="S2213305417300024-  
333ca49614870e0689825f383905ead1"> Santiago  
López<ce:author id="aut0010"  
author-id="S2213305417300024-  
f699d7bb5d8c3ba0d834e5016228f4ad"> Jin-Kyu  
Jung<ce:author id="aut0015"  
author-id="S2213305417300024-  
4bf6342c87e4a0dd2180d317f499bd2e"> María Fernanda  
López



PII: S2213-3054(17)30002-4  
DOI: <http://dx.doi.org/doi:10.1016/j.ancene.2017.01.001>  
Reference: ANCENE 128

To appear in:

Received date: 27-7-2016  
Revised date: 27-12-2016  
Accepted date: 3-1-2017

Please cite this article as: López, Santiago, Jung, Jin-Kyu, López, María Fernanda, A hybrid-epistemological approach to climate change research: Linking scientific and smallholder knowledge systems in the Ecuadorian Andes. *Anthropocene* <http://dx.doi.org/10.1016/j.ancene.2017.01.001>

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

**A hybrid-epistemological approach to climate change research: Linking scientific and smallholder knowledge systems in the Ecuadorian Andes.**

**Authors and affiliations**

Santiago López <sup>\* a</sup> email: [cslopez@uw.edu](mailto:cslopez@uw.edu)  
Jin-Kyu Jung <sup>a</sup> email: [jkjung5@uw.edu](mailto:jkjung5@uw.edu)  
María Fernanda López <sup>b</sup> email: [maflopez@flacso.edu.ec](mailto:maflopez@flacso.edu.ec)

**Corresponding author <sup>\*</sup>**

**Affiliation <sup>a</sup>**: University of Washington Bothell (WA – USA)

**Affiliation <sup>b</sup>**: Facultad Latinoamericana de Ciencias Sociales (Quito-Ecuador)

**Professional address of the corresponding author:**

University of Washington Bothell  
School of Interdisciplinary Arts and Sciences  
18115 Campus Way NE  
Bothell, WA 98011-8246  
**phone:**+001 – (425 352 3393

**Abstract**

Effective responses to the impacts of climate change require the recognition that people conceptualize and experience environmental changes differently, and require the support of a range of global-to-local interdisciplinary efforts that allow a dialog between the biophysical and social sciences. In this study, we use a hybrid epistemological framework that integrates scientific and local knowledge systems, methodological approaches, and geographic scopes to: 1) shed light on climate change in the equatorial Andes as reported by scientific and local knowledge systems, and 2) understand the role that climate factors play on land use and agricultural change in natural resource dependent communities in the region. We analyzed weather station ( $n = 5$ ) data and downscaled climate data using parametric and non-parametric statistical tests, and spatial analysis techniques to detect spatio-temporal climate trends between 1965 and 2013. We also analyzed climate variability in the past four decades using qualitative information derived from a semi-structured survey ( $n = 36$ ) and life history smallholder interviews ( $n = 8$ ) collected in three research sites. Our study reveals significant warming trends in the region which is corroborated by

Download English Version:

<https://daneshyari.com/en/article/5755087>

Download Persian Version:

<https://daneshyari.com/article/5755087>

[Daneshyari.com](https://daneshyari.com)