



University
of Victoria

Graduate Studies

Notice of the Final Oral Examination
for the Degree of Doctor of Philosophy

of

SEAN MICHAEL IRWIN

M.R.D. (Brandon University, 2012)
M.I.T. (University of Saskatchewan, 2011)
B.A. (University of Manitoba, 2005)

**“Forging pathways to sustainable food systems and rural poverty
reduction: Insights from a social and economic value chain analysis
of aquaculture in the Bolivian Amazon”**

Department of Geography

Friday, June 22, 2018
10:00 A.M.
David Turpin Building
Room B215

Supervisory Committee:

Dr. Mark Flaherty, Department of Geography, University of Victoria (Supervisor)
Dr. Aleck Ostry, Department of Geography, UVic (Member)
Dr. Joachim Carolsfeld, World Fisheries Trust (Outside Member)

External Examiner:

Dr. John Smithers, Department of Geography, University of Guelph

Chair of Oral Examination:

Dr. Carolyn Crippen, Department of Educational Psychology and Leadership Studies, UVic

Abstract

Increasing the social, economic, and environmental sustainability of food systems while making them productive enough to feed a future global population of 9 billion is one of the most significant challenges facing humanity. Aquaculture is touted as a food system that can make a profound contribution to this challenge, but much more research is needed to understand how it can develop sustainably. In central Bolivia, an aquaculture system is emerging that is generating opportunities for empowerment, food security, and poverty reduction. However, pathways that lead to the capture of these opportunities while avoiding challenges are not well defined. It is also unclear how the trajectory of growth can be supported so that aquaculture in the region can sustainably contribute to rural development. The purpose of this study, therefore, was to determine how rural small-scale aquaculture systems can contribute to food production while also being environmentally, socially, and economically sustainable. To do so, a new holistic value chain analysis that incorporates horizontal linkages (gender, food security, poverty analysis, and socio-political context) was developed and utilized. It included semi-structured interviews with 40 central Bolivian aquaculture producers, 40 farmers who did not produce aquaculture fish, 26 people employed in the aquaculture value chain, and 18 aquaculture system key informants.

The study found that aquaculture in central Bolivia tends to have a positive effect on system participants and has a low environmental impact. It also identified improvements that the system could make to improve its productivity and sustainability. Beyond the central Bolivian aquaculture system specifically, the research makes an important and valuable contribution to knowledge by identifying and explaining the linkages between local and regional food systems in the global South, and sustainable development outcomes. This research provides insight for development researchers and practitioners looking to improve the productivity and sustainability of aquaculture systems. This research also improves our understanding of how food system development can generate empowerment, food security, and poverty reduction more broadly.