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**Seasonal food access as a pathway to the double burden of malnutrition:
a case study of smallholder coffee farmers in Bolivia.**

Master Thesis

Faculty of Agricultural Sciences

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Abstract

Bolivia has experienced a significant reduction in poverty and improved its nutritional status in recent years. However, it remains among the poorest countries in South America where 19.8 percent of its population is undernourished (FAO, 2018). Notwithstanding, this coincides with a rise in obesity and growing prevalence in non-communicable diseases such as cancer, stroke, and diabetes (WFP, 2018). Recent health reports on Bolivia indicate that 54 percent of children under 5 years of age suffer from anemia, while 30 percent of women of reproductive age are afflicted by it, in addition to 58 percent of women of the same age being overweight or obese; accruing evidence for the double burden of malnutrition as a national health concern (WFP, 2018).

Correspondingly, food insecurity among coffee producing communities is a prevailing livelihood challenge (Bacon, 2008). A significant portion of Bolivia's coffee farmers struggles to secure adequate food supplies at some point during the year; a phenomenon referred to as seasonal hunger (Mendez, 2010). It is a widely known occurrence, yet, existing studies concerning this issue have been cursory in linking fluctuating food access and risks associated with nutrient inadequacy. This study found that seasonal hunger is caused by a variety of factors, including limited income during lean months as a result of a specialized labor market, an increase in women's work burden, seasonality and the conflict between cash crop and subsistence farming, climatic disasters, and human-wild life conflicts. Households responded to inadequate food access by employing coping strategies that may result in compromised diets. Mainly, meals consisted of energy-dense, starchy foods with low nutrient profiles. Furthermore, a high incidence of abdominal adiposity among women was observed, which has been linked to diet related, non-communicable diseases (Ahkil & Ahmad, 2011). A nutrient intake assesment showed that diets for all households did not supply the recommended daily intake across all nutrients, which offers an indication of the double burden of malnutrition. In a circumstance of repetitive food inadequacy and compromised diet quality, seasonal hunger may pose as a pathway to the double burden of malnutrition. The use of complementary methods for nutrient assessment, and a comprehensive consumption behavior across household members and different periods is recommended to further develop these findings.

Key words: Seasonal Hunger, Double Burden of Malnutrition, Coffee Farmers