Promoting Rural Livelihoods and Public Health through Poultry Microfinance: Evidence from Lao PDR

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Smallholder livestock are essential to rural livelihoods and incomes in Lao PDR, but commercialization rates are extremely low and more than 90% of poultry producers reside in traditional extensive subsistence systems. Furthermore, outbreaks of Highly Pathogenic Avian Influenza (HPAI) have decelerated the process of commercialization of poultry, preventing smallholders from joining higher value urban poultry supply chains. Microfinance presents a possible solution to the low levels of commercialization among smallholder producers. Access to credit provides producers an opportunity to restock their flock after a disease outbreak and can also allow smallholders to increase flock sizes, because losses from disease will not be as damaging. Larger flock sizes allow producers to increase marketing rates, providing more income and an opportunity for savings. Furthermore, microcredit can grant producers the capital needed to invest in biosecurity, ultimately increasing product quality, safety, and value.

There are many channels for a poultry producer to acquire loans including commercial banks, agriculture-specific banks, microfinance institutions (MFIs), and the informal sector. However, most formal financial sources are widely underutilized, and many producers rely on their own capital or the informal sector, which are often inadequate. For example, the vast majority of rural financial access comes from the informal sector, reaching 33% of rural households while the formal and semi-formal sector (including MFIs) only reaches 7%. Furthermore, rural households that do acquire loans for agriculture production typically use loans for purposes other than poultry production, as birds are commonly used to supplement other agriculture activities.

Credit constraints are an especially important issue for rural and smallholder finance, because they are widespread amongst smallholders and are severely limiting in increasing rates of marketing and improving livelihoods. It has been amply shown that capital constraints may discourage smallholders from producing, limit consumption, and are therefore accepted as a barrier to poverty reduction strategies based on credit schemes. Furthermore, credit constrained households face a difficulty in deciding on how to allocate credit between consumption decisions and farm production decisions while unconstrained households do not.

Project Activities

To better understand how financial access and capital constraints affect smallholder poultry production, surveys were implemented in the Vientiane Capital province from December 2009 to February 2010. Questionnaires consisted of two distinct parts covering the actors in the supply chain of poultry products and the urban consumers of those goods. Market chain surveys included detailed producer, trader, and vendor surveys and the second part of surveys consisted of household consumer surveys.

In total, 128 villages split between 46 urban and 82 villages were selected from the sample frame. Villages were selected either by re-sampling those included in the Lao Expenditure and Consumption Survey (LECS), or using a probability proportion to size methodology. 2,068 observations were recorded from our sample, split between 1,284 market chain observations and 784 consumer observations. Amongst the market chain surveys, producer observations were the highest with over 1,100 observations.

Findings and Outcomes

Our findings demonstrate that microfinance and rural financial services do not reach poultry producers in significant numbers and less than 4% of small-scale producers reported taking a loan for poultry production in the past year. The low levels of financial access can partially be explained by capital constraints, which are common among producers and other supply chain actors.

Looking at borrowers, we find that small-scale producers and market vendors received loans from a wide variety of financial sources, indicating they may be capitally constrained as they have to borrow from more than one financial source for the same activity. Additionally, many supply chain actors reported that the amount of capital they were able to receive was not enough for their investment. This was most common among small-scale producers; with nearly half of borrowers reporting the loan size was not large enough for their investment and more than 80% wanting to borrow more.

For non-borrowers, we find that gifts from family were the most important sources of capital for small-scale, large chicken producers, and market vendors. For aggregators and large duck producers, their own savings was the most important source. Our data shows that savings among small-scale producers is the most under-developed, and this may cause difficulties for MFIs in terms of deposit mobilization. We also find that capital constraints are widespread among those who do not borrow. Over half of supply chain actors may face constraints because they believe that they would receive a loan if they applied for it, yet still have not done so. There are several reasons why these non-borrowers may be constrained, but the most common constraints come from risk rationing; particularly fear of being indebted, risking land for collateral, and high interest rates.

Looking at our data in aggregate we see that capital constraints are much more common among non-borrowers with other 80% of all actors facing constraints. Small-scale producers are the most constrained group of all, and this inadequate credit access presents a serious limitation to the promotion of commercialization and improved living standards. Our findings identify major challenges for rural and microfinance in order to improve credit access.

Identification of Eligible Farmers for Microfinance Services

Because we find that credit constraints are so common among smallholders we attempt to identify small-scale producers that appear to have the most to gain from utilizing increased microfinance services. We begin by first identifying eligible households in our survey data, and then expanding our findings to the national level using the LECS.

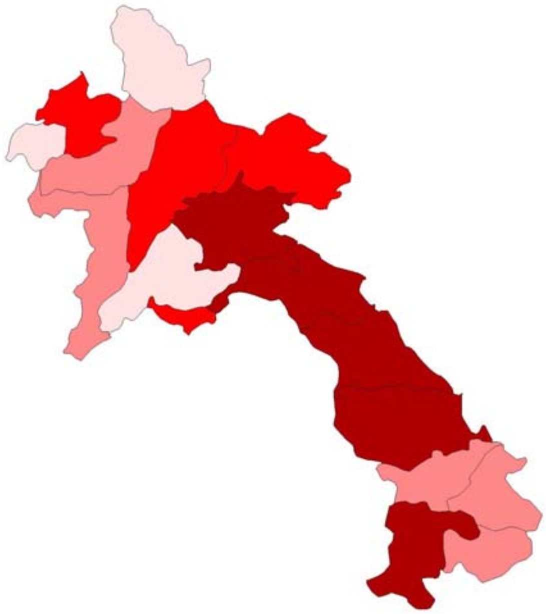
Identifying eligible farmers from our survey is done using two criteria. First, we identify small-scale farmers that have sold poultry within the past year. This is done to eliminate households that produce solely for home production and would have little interest in using microfinance services for poultry production. Using this first criterion, we then identify farmers that have taken out a loan for poultry production in the previous year or households that want loans but are capital constrained. Identifying these farmers allows us to drop those that have no desire for loans and thus would not benefit from poultry financial services.

Using these criteria we identify 319 small-scale farmers from our sample of 1,050. Eligible farmers earn on average approximately US$13.05/month representing 14.6% of their total income, while ineligible farmers only earn US$3.78/month representing 3.2% of total income. This signals that poultry production is a much more important income generating activity for eligible farmers and therefore increasing market access for this segment of the smallholder population should be made a priority. The argument is stronger when considering eligible farmers have previously utilized loans for poultry production or are capitally constrained.

Using LECS data allows us to expand a similar methodology to the national level to determine which provinces and regions stand to benefit the most from increased financial services to small-scale producers. We use a similar approach for selecting eligible households, although proxy criteria must be used due to differences in the questionnaires. First, we identify households that have sold birds in the past 4 weeks. This proxy is imperfect because it will omit households that have sold birds in the past 12 months but not in the past 4 weeks, which may be identified as eligible under our criteria. One way to potentially capture these missed households is to relax the sales constraint and instead use flock size as a proxy for sales, as it can be assumed that households with a large enough flock size will sell birds from time to time. The next criterion used is to identify households that have borrowed money in the previous year. Unfortunately, data on household finances is extremely limited in the LECS so this represents our best proxy.

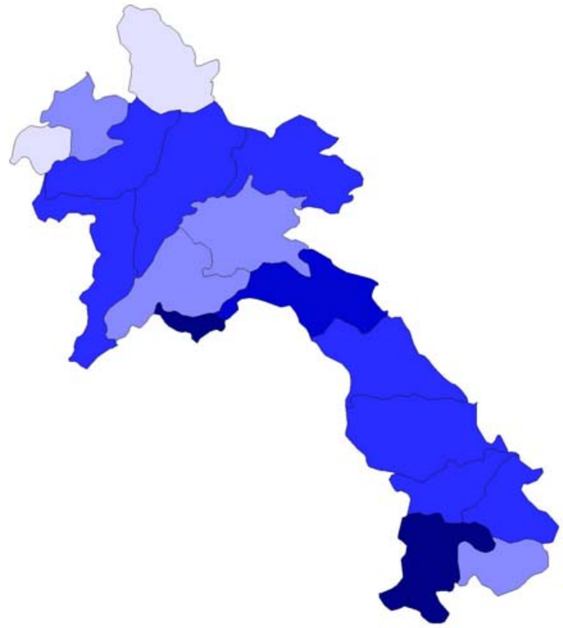
These criteria identify 191 households in the LECS, which represents 21,504 households based on sample weights. Relaxing our criteria to include households that do not sell birds, but have flock sizes of at least 45, brings the total number of eligible households to 464 in the LECS, representing 60,982 households across the country. Figures 1 and 2 present this information graphically on a map of Lao PDR, showing which provinces have a higher number of observations.

Figure 1: Map of Provinces with Most Eligible Households



Light Pink = Least Eligible Provinces
Maroon = Most Eligible Provinces

Figure 2: Map of Provinces with Most Eligible Households (Relaxed Criteria)



Light Blue = Least Eligible Provinces
Dark Blue = Most Eligible Provinces

Our results find that the provinces along the Mekong corridor would be the most eligible for increased poultry finance resources. Under the first eligibility category, the Champasak, Savaanakhet, Khammouane, and Borikhamxay provinces all had large number of eligible households. These provinces are home to a large amount of small-scale farmers that are close to the large urban markets of Vientiane, Savannakhet, and Pakse. This argument is further strengthened when we consider that Savannakhet and Champasak are home to the largest poultry populations in Lao PDR. Smallholder poultry production is ubiquitous in these provinces and encouraging these subsistence-oriented farmers to market their products can have a tremendous impact on improving livelihoods. Financial access may be the catalyst these farmers need to move from home consumption to high value urban markets. Relaxing our criteria, does not change these statements, but expands eligibility to a larger number of households, which is useful as financial resources become more available.