

**HUMBOLDT-UNIVERSITÄT ZU BERLIN**  
**Faculty of Life Sciences**



**"THE DEMAND FOR INDEX-BASED WEATHER INSURANCE –  
THE CASE OF THE LIVELIHOOD PROTECTION POLICY (LPP)  
IN SAINT LUCIA"**

Thesis in the study program: Agricultural Economics (M.Sc.)

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## 11 Summary

This study addresses an aspect of index-based weather insurance which – in the face of widespread enthusiasm – is frequently neglected: Thus far, most index-based weather insurance schemes have encountered low demand. Applied to the case of farmers' demand for the Livelihood Protection Policy in Saint Lucia this study intends to fathom and disentangle the manifold reasons due to which the target group has hitherto been reluctant to purchase the product.

In doing so, a mixed-methods approach that combines and integrates quantitative and qualitative data is utilized. Building on data from the 2011 demand study, surveys with LPP-holders and non-LPP-holders were carried out during field research in May and June 2015. Subsequently, semi-structured interviews with relevant stakeholders were conducted in order to elaborate and triangulate the obtained findings. Based on the relevant literature, determinants of demand for insurance were categorized as follows.

**Economic factors:** In the face of the target group's high **price** sensitivity, results suggest that the amount of 30 USD per policy is likely to have kept some farmers from buying the product. In terms of income, data shows that higher **income** levels correlate with demand for the LPP. Moreover, surveyed LPP-holders earn on average four times as much as their uninsured peers. This indicates that demand has been particularly weak among the low-income target group.

**Social and cultural factors:** As far as **basis risk and risk aversion** are concerned, the present research shows that unlike what standard economic theory posits risk aversion does not necessarily translate into higher insurance uptake. On the contrary, the target group frequently views purchasing insurance itself as a risk. In this context, basis-risk – the Achilles' heel of index-based insurance – even invigorates this perception. Ultimately, risk aversion in the face of basis risk is likely to have curbed demand for the LPP. Scrutinizing the role **trust** plays in the low demand for the LPP led to two main results. Compared to member-based organizations such as credit unions and cooperatives, the target group has little trust in the insurance industry which negatively affects product demand. Also, trust levels towards the insurance industry are significantly higher among LPP-holders. The second layer of trust that has taken its toll on demand for the LPP is between the underwriting insurance company and representatives of the intermediary organizations, namely farmers' cooperatives and credit unions. The latter, too, have little trust toward EC Global and are consequently reluctant to sell and promote the LPP. As far as

**education** is concerned, it can be said that while LPP-holders have attained higher degrees than uninsured farmers, no effects on demand were found. Similarly, the hypothesis that **fatalistic worldviews** explain low demand was dismantled by showing that the vast majority of surveyed farmers engages in adaptation measures other than insurance, for example planting high-trees as windbreaks or irrigation.

**Structural factors:** None of the data sources indicates the widespread existence of **informal risk sharing arrangements** among Saint Lucian farmers. Hence, this determinant was not addressed in the present research. As far as **risk perception and past shocks** are concerned findings are ambiguous. In the 2011 sample, higher risk perception increases the demand for insurance. This, however, does not hold for the 2015 sample. In this regard, it is imperative that product coverage be considered. The product for which demand was assessed does not cover drought. In the 2011 sample farmers did not indicate that drought was an issue. By contrast, in 2015 drought was perceived as *the* major risk compared to flooding and high-winds. **climate change perception** among the surveyed farmers is high. It does, however, not (yet) translate into demand for the LPP.

**Personal factors:** With respect to their effects on LPP demand, this study finds no evidence for either **age** or **gender**.

**Product characteristics:** The analysis of LPP product characteristics in terms of coverage brought to light significant gaps between **LPP coverage** and farmers' needs. According to this study, the fact that under current contractual conditions drought is not part of the policy is one of the main reasons for low-demand. Moreover, low **marketing activity** and insufficient **stakeholder involvement** have hindered LPP-uptake. In this vein, findings suggest that marketing efforts have gradually decreased and almost come to a stalemate at the time of field research. Similarly, some stakeholders deplore that they have not been sufficiently consulted in the implementation phase and consequently lack identification with the product.

In conclusion, increased government involvement in the form of phase-out subsidies could potentially tackle some of the main issues. First, decreased price levels are likely to crowd-in more customers. Second, government involvement can serve as a heuristic that the product can be trusted. Similarly, intermediary organizations can foster trust between the target group and the insurance provider and thus the product. In the case of the LPP, however, trusting relationships with farmers' cooperatives and credit unions must

first be (re) build. Finally, the identified gaps between farmers' needs and product coverage are a strong reminder that when researching farmers' demand for index-based weather insurance the characteristics of a specific product matter. Thus, the target group's demand must not be inherently assumed as is often the case.