

# Climate Risk Adaptation and Insurance in the Caribbean

Making Weather-Index Microinsurance  
Work for Vulnerable Individuals

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- Coping strategies often lead vulnerable populations **deeper into poverty**
- Over the last 30 years **1.5 million affectees** of extreme weather events in the eastern Caribbean
- Losses of up to **6% of annual GNP** caused by extreme weather in some Caribbean countries
- Negative impacts on **economic growth** and **productivity**

**Poverty and social vulnerability are intertwined!**

## Framing: Big Picture

- German Federal Ministry for the Environment, Nature Conservation, and Nuclear Safety (BMU) approached Munich Climate Insurance Initiative
- Assignment: Showcase how insurance can contribute to risk reduction and adaptation especially within the Small Island Developing States context
- Support decision making process at UNFCCC (“SBI work programme on Loss & Damage”) with insights from implementation

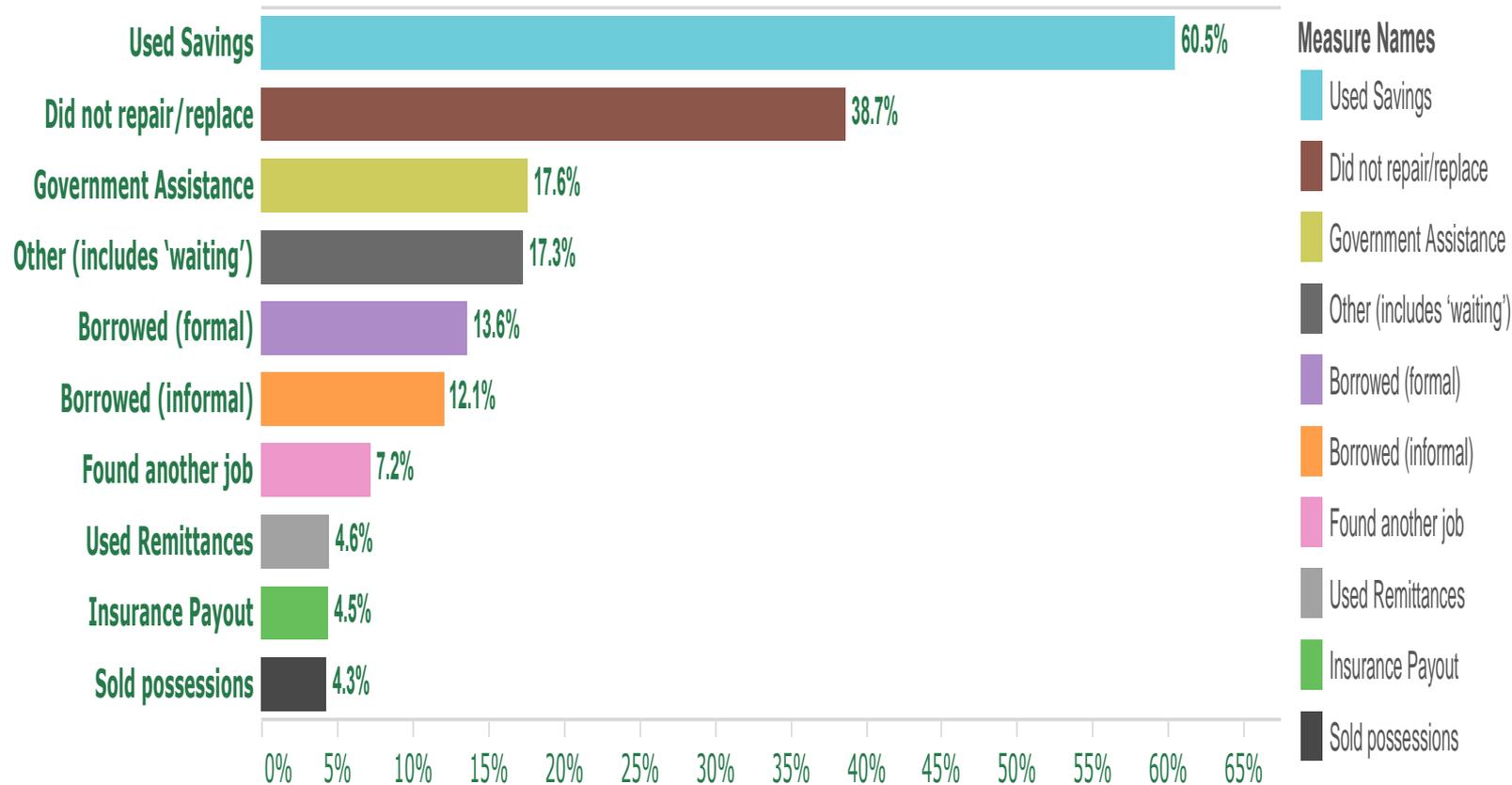
## Demand Study 2011

1. What coping strategies did low-income populations employ?
2. Was there a demand for risk transfer solutions?
3. Were they willing to pay?
4. How will the solutions be distributed?



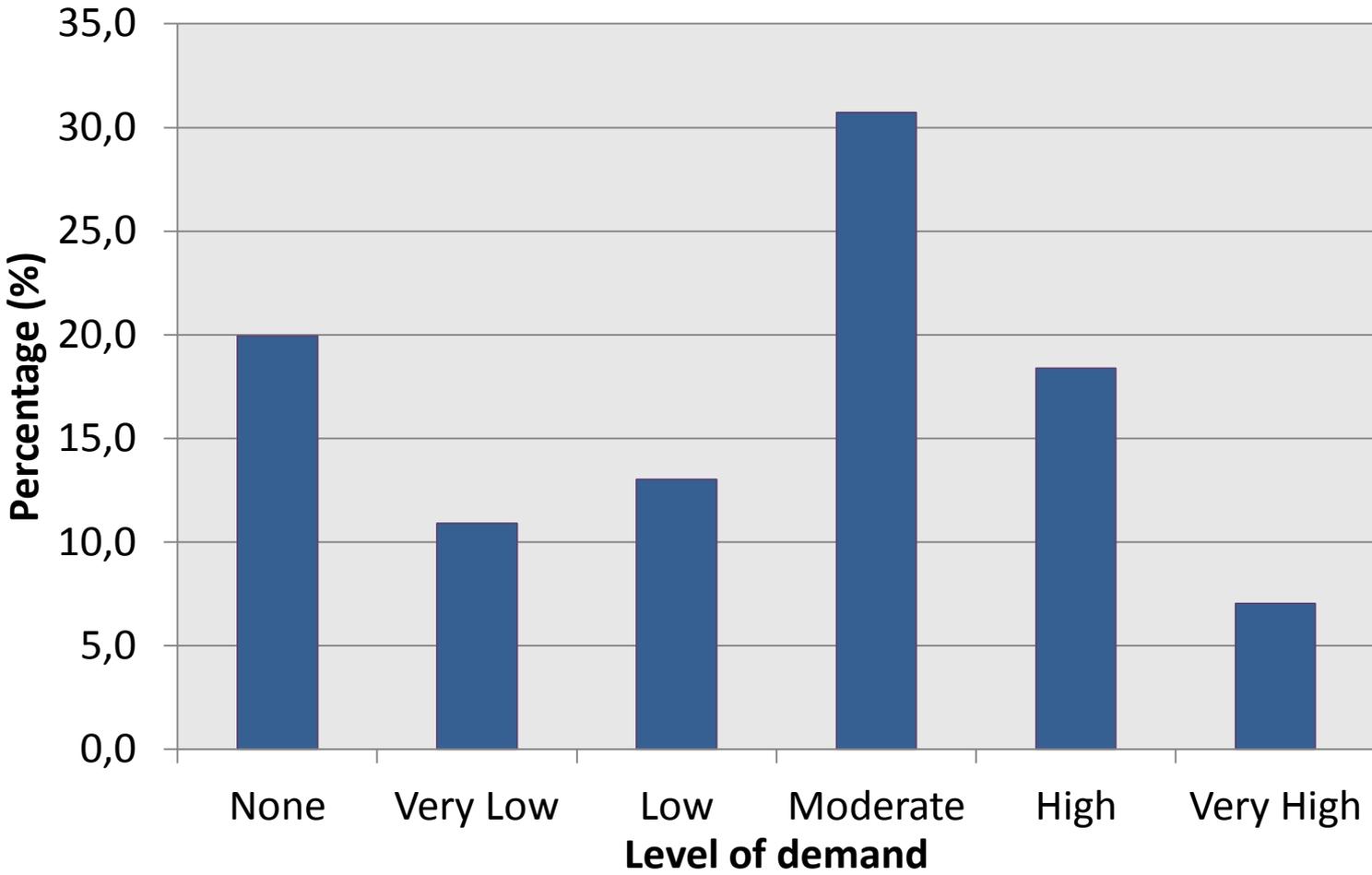
# Coping Strategies and their Impacts

Average % of Population taking Coping Strategy  
in Jamaica, Saint Lucia, Grenada and Beliz



\*Stressor Levels from Sebstad et al. (2006)

# Average level of demand for insurance



Results:

Moderate demand: 30,7%

High to very high demand: 25,4%

Source: Lashley and Warner 2012

## Addressing the Adaptation Needs of Vulnerable Communities

- Using insurance to address adaptation needs: Not just about public OR private solutions
  - Innovations & partnerships in using insurance
  - Local level: Building resilience with local insurance & safety nets: Helping low-income people absorb shocks and temper downturns
  - National level: Combining risk transfer and measures to protect national development priorities
  - Regional & international: Combining risk transfer with regional risk capacity & forecasting

- Build resilience against weather extremes, climate shocks
- Provide recourse to coping strategies that ultimately lead to poverty
- Improve access to credit, financial stability
- Encourage risk aware behaviour

- Parametric weather index insurance solutions for low-income people
- Extend the financial safety net to previously excluded persons
- Find ways to catalyse sustainable adaptation to climate change



## MCII CLIMATE RISK INSURANCE IN THE CARIBBEAN

Supported by:



based on a decision of the Parliament  
of the Federal Republic of Germany

## Livelihood Protection Policy

- Parametric product: Dual peril - wind-speed, rain
- Beneficiaries: Individuals
- Beneficiaries determine the level of coverage they require - product sold in units
- Effect: Provides liquidity to individuals in the aftermath of extreme weather events to protect livelihoods

**Livelihood Resilience**

## Loan Portfolio Cover

- Parametric product: Dual peril - wind-speed, rain
- Beneficiaries: Development finance institutions, credit unions/cooperatives etc
- Beneficiaries determine what extent of the lending portfolio exposed to extreme weather they wish to insure (e.g. agricultural sector)
- Effect: Improves financial liquidity and terms of lending, increased economic activity in the long run

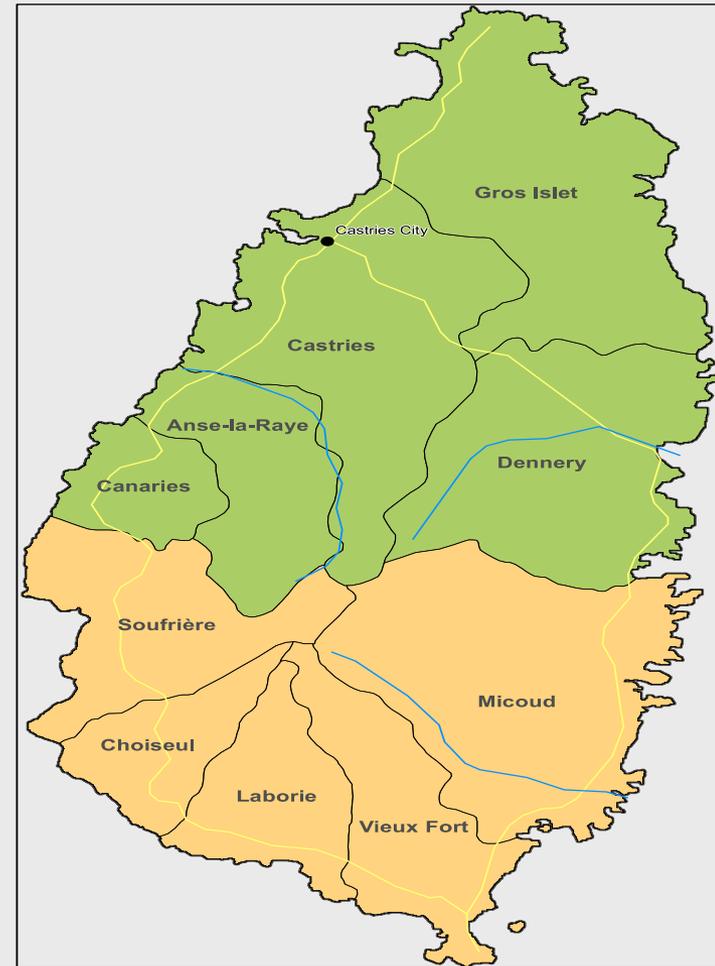
**Financial Resilience**

## Weather Index Insurance: How it works

- Spatial Resolution of the target country
- Wind speed and Rainfall
- Correlation analysis for wind, rain



Trigger and payout structure of the Livelihood Protection Policy



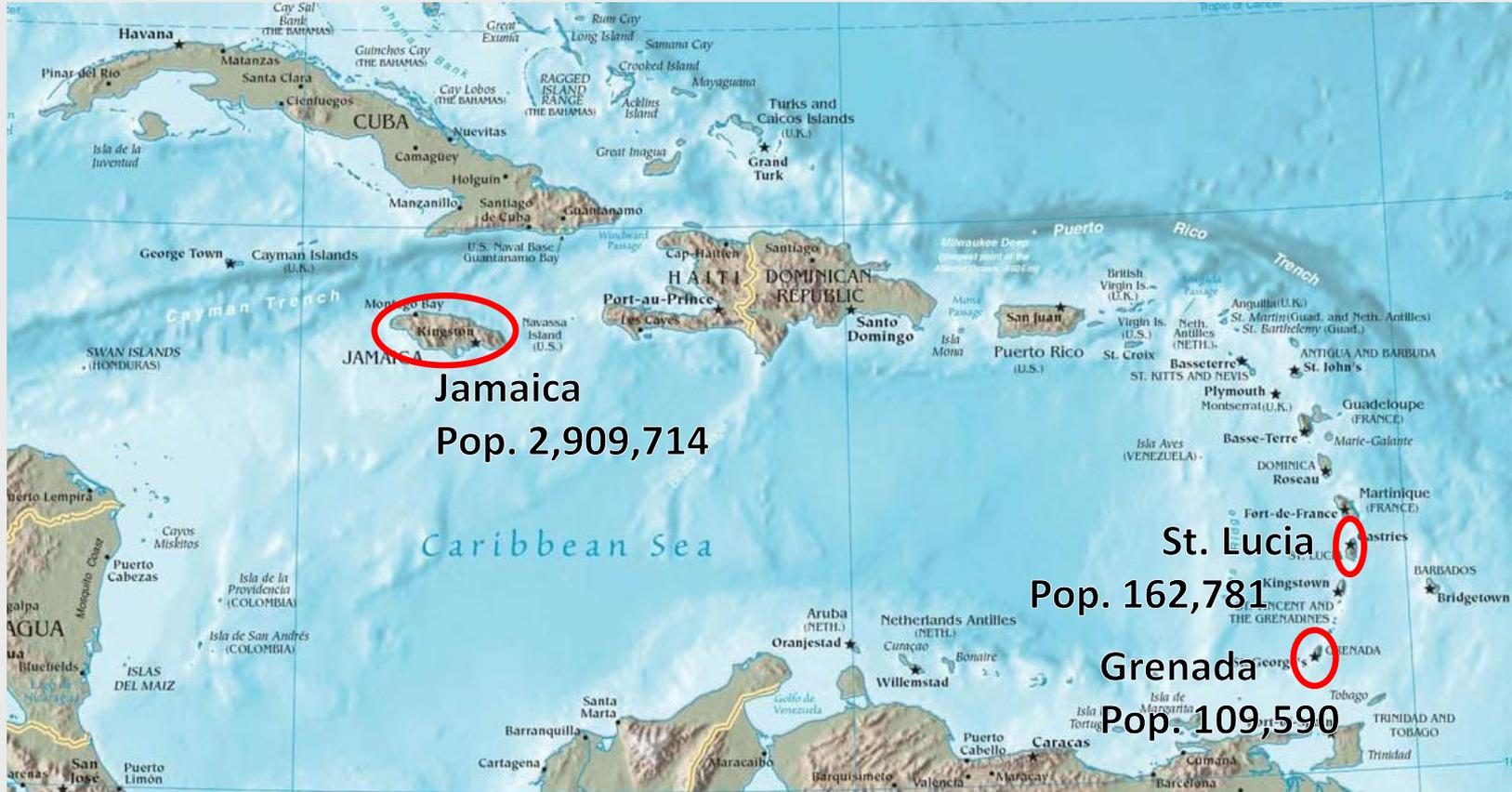


## Antoine's story

### HOW LPP COULD HAVE HELPED ANTOINE

- **Before the hurricane** Antoine receives an SMS warning of an approaching hurricane. He secures his property and leads his family to a safe location.
- **Immediately after** As he was able to secure his property only one greenhouse is lost. The hurricane exceeded the rainfall/wind speed threshold, so Antoine gets an SMS telling him he will receive a payout within 15 days.
- **Medium-term** With the payout deposited in his bank account Antoine can repay his loan and start rebuilding his livelihood without resorting to more desperate coping measures.
- **Long-term** Antoine is able to both repay his loan and rebuild the lost greenhouses with the payout he receives from his policy. This puts him and his family in a better position for when another hurricane inevitably strikes.

# Target Countries



Source: caribbean-on-line.com

# Mexico City



# Market Development



## Design

- Needs Assessment
- Costs

## Delivery

- Coverage
- Administration

## Outreach

- Education
- Experience

# Raising Awareness



24.11.2014

10<sup>th</sup> International Microinsurance  
Conference

- Weather index-based parametric insurance is new
- Regulatory/ legislative frameworks needed to be interpreted
- Data often incomplete or unavailable
- Strategies for increasing scale
- Investments in mass awareness raising, education essential
- Alignment with national systems

## Next Big Questions

- What data/ information needs exist and how can they be fulfilled in the most cost efficient, effective manner?
- What new challenges to the existing legal, institutional and regulatory frameworks are posed by the new types of insurance products that are emerging?
- What implications do vulnerability profiles of target groups have for social protection, green growth?
- How can the international climate policy negotiation process support and strengthen this and similar endeavours?

- Insurance can fulfill four functions to help meet the needs of low-income countries & communities
  - ✓ Assess and price risks
  - ✓ Reduce financial repercussions of volatility, create more certainty
  - ✓ Incentivize loss reduction & resilience building activities
  - ✓ Provide timely finance to recompense damage



Thank you!