Project Brochure No. 2

Climate Risk Adaptation and Insurance in the Caribbean



Providing Risk Management Tools to Help Vulnerable People Adapt to Weather Extremes

Unlocking Development Potential in the Caribbean



Overcoming Barriers to Managing and Transferring Weather-Related Risk



Providing Access to New Market Segments and Supporting Sustainable Development



Transforming Experience into Policy





Between 2011 and 2014 the Climate Risk Adaptation and Insurance in the Caribbean programme will design and implement products that combine risk reduction and insurance to protect the livelihoods of low income groups in the Caribbean. Germany's Federal Ministry for the Environment has approved funding for this unique project.

Need: To Address High Risk Exposure to Weather-Related Extremes

Developing countries located in disaster-prone regions – such as the Caribbean – are particularly hard hit by the consequences of global climate change, making it even more difficult for vulnerable people in those countries to adapt to the increasing risk. According to estimates from an Economics of Climate Adaptation study, losses caused by weather-related natural catastrophes already account for up to 6% of the annual gross national product in some Caribbean countries – a figure that could increase by up to three percentage points by 2030, with hurricanes having the greatest loss potential in the region.

Finding Solutions: Linking Risk Reduction and Insurance

Weather risk insurance-related solutions – among them microinsurances – can play a key role in providing swift and unbureaucratic recovery aid following major losses caused by such natural catastrophes, and thus safeguard livelihoods. However, these approaches have so far experienced difficulties in reaching out to a larger proportion of the vulnerable population due to a shortage of information on local weather risks, insufficient risk management and risk transfer experience on the part of the initiators, and the lack of a clearly viable reinsurance concept.

The project, funded to the tune of €2m for a period of three years, aims to overcome these obstacles by bringing reinsurer Munich Re, the Caribbean Catastrophe Risk Insurance Facility (CCRIF), and specialist microinsurance broker MicroEnsure together under the umbrella of the Munich Climate Insurance Initiative (MCII). In the next three years, up to three different insurance products will be developed and marketed in at least three countries across the region, and their acceptability to and effect on the target group put to the test. A new aspect of these products will be a close association with risk-reduction measures.

Relevance for Climate Negotiations

Launched by Munich Re together with representatives of international finance institutions, scientific institutes and nongovernmental organisations, and hosted at the United Nations University Institute for Environment and Human Security (UNU-EHS), MCII has been involved in the United Nations climate negotiations process since 2005. At the World Climate Conference in Poznan (COP-14) in 2008, MCII tabled a detailed proposal for a risk management module linking insurance solutions to disaster risk reduction to help developing countries adapt to climate change. This project is a first operative step of MCII to such an integral risk management system for developing countries. In 2009 at COP-15, a number of key items from the proposal were included in the Copenhagen Accord, carried forward into the Cancun Agreement in 2010 (COP-16) and even reflected in the Work Programme on Loss and Damage under the Subsidiary Body for Implementation (SBI) of the UNFCCC.

Benefits for the Caribbean

The programme will significantly improve the security of families' and communities' livelihoods in the Caribbean, by helping farmers and day labourers adapt to the impacts of weather related extreme events. In this way the programme seeks to break the negative cycle of poverty experienced by many in the region.





The programme has five goals:

Providing Risk Management Tools to Help Vulnerable People Adapt to Weather Extremes

The projected impacts of climate change on the Caribbean region are expected to bring increased instances of weather-related extremes. The programme helps vulnerable farmers and day labourers in the Caribbean adapt to the impacts of weather-related extreme events by linking loss avoidance and reduction (such as adaptive agricultural techniques, building safer structures) with financial risk management tools.

Unlocking Development Potential in the Caribbean

Recurring impacts of weather-related risks can erode the resilience of low-income households, who in many cases are left with no other option than to sell or use productive assets in order to survive. Insurance and disaster risk reduction efforts against weather risks have the potential to significantly improve the security of families' and communities' livelihoods. Furthermore, experience in other areas of the world shows that insurance unlocks the possibility for poor farmers to access productivity-enhancing credit.

Overcoming Barriers to Managing and Transferring Weather-Related Risks

Low-income communities face daunting challenges in managing weather-related risks. Few have access to financial back-up mechanisms for hard times. Few have sufficient weather information to inform their farming and investment decisions. Few have adequate resources to expand capacity to manage disaster risk. These gaps translate into a negative cycle of poverty. The programme turns this cycle around by providing data and financial risk management tools locally and regionally, and by improving disaster risk management capacity.

Providing Access to New Market Segments and Support of Sustainable Development

The unique partnership facilitates access to new market segments. Its partners include a company specialising in matching local needs with tailored risk management products, a regional facility with understanding of the regulatory environment and ability to serve as a regional risk aggregator, and a leading reinsurer with expertise in modelling, product structuring, and international practice and policy. The unique composition of the partnership will enable the programme to showcase a new way of sustainably managing weather-related risks at a regional level, will allow a formerly uncovered proportion of the population to participate in the insurance market and may even foster the development of local insurance industry.

Transforming Experience into Policy

The programme will share lessons learned with policy makers at the regional and international level. This will inform decision makers about designing approaches to loss avoidance and reduction, on expanding the access of vulnerable people to these schemes and on the potential services and value addition of a regional facility.

The Climate Risk Adaptation and Insurance in the Caribbean programme will demonstrate to leaders from Africa, the Pacific and Latin America whether such an approach would be relevant for risk management in their regions. The programme partners will work with delegates to the UNFCCC to determine what role the international community might play in catalysing similar regional approaches to adaptation, reduction of loss and damage, and insurance.





The following pages introduce two products designed by the project consortium. They are based on stakeholder needs identified during multiple field visits to the Caribbean and will be introduced in the run up to the hurricane season in 2012.

Product Description: Loan Portfolio Cover

Natural catastrophes are a principal cause of high peaks in default rate in most major financial institutions targeted at low income groups in many parts of the world. Management of portfolio risk needs to be improved to allow development banks, credit unions and cooperatives to expand their funding base and therefore their onward lending capacity to low income people and micro, small and medium enterprises (MSMEs). Maintaining the liquidity of these institutions is critical in ensuring that low income groups are able to access finance.

Very often financial institutions are reluctant to give loans to those people who are exposed to natural hazard risk, as they are fearful of introducing an uncontrolled and uncontrollable natural catastrophe exposure to their loan portfolios. This policy is designed to transfer this risk and, thus, to secure the financial position of the bank/institution after an extreme weather event and enable the institution to provide more loans to these sectors. Additionally, this policy will enable financial institutions to restructure or even write off defaulted loans of low-income clients who have suffered from the adverse effects of extreme weather events.

The "Loan Portfolio Cover" (LPC) is a trigger-based insurance policy which is designed to provide portfolio level protection against loan default for lender institutions such as Development Banks, Credit Unions etc. which have significant portfolios of individual and MSME loans exposed to weather risks.

Target Group

The scope of the target group should include all national level financial institutions such as Development Banks, Credit Unions and Cooperatives with a nationally distributed portfolio of risk.

Parametric Insurance Policy

The policy would run for one year after inception date and would respond to the most severe weather events, i.e. high wind speed and/or excessive rainfall. The simple structure is that the policy will pay out the pre-agreed amount if a certain wind speed and/or rainfall amount (the trigger) is exceeded, irrespective of any proven loan default loss the financial institution has suffered. As long as the triggers are not exceeded, the policy will not pay out, however, even if the financial institution suffers increased loan default losses.

The LPC offers a fixed payout limit of x % of the reported outstanding loan portfolio of the insured at policy inception with possibly one mid-term revision to allow for movements in the lending portfolio.

Link to Disaster Risk Reduction

An important feature of the LPC is an SMS-based warning system for bank clients. This system is a technically simple way to inform bank clients about upcoming weather events via mobile phones. People will receive explicit warning in case of upcoming weather events and so they have the possibility to react in time and secure their assets. Such a system – properly managed and accepted by clients - could lead to a significant reduction of loan default losses, one of the intended side effects we want to achieve.





Product Description: Livelihood Protection Policy

The "Livelihood Protection Policy" (LPP) is a trigger-based insurance policy which is designed to help low income people cope with the severe impacts on their livelihoods following extreme weather events. The general impact of such a policy would be to stabilise the financial situation of vulnerable people and avoid any necessity to apply other risk management strategies (use of savings, sale of assets, family loan, credits etc.) that puts additional pressure on the people's financial situation and, at worst, could send them back into poverty. The main objective is to provide individuals with an amount of money within a short period of time following an extreme weather event that allows them to quickly start rebuilding their farm/small enterprise and/or livelihood. A further (secondary) benefit could be that such policies could serve as (conditional) collaterals for loans, as banks no longer run the risk of losses from natural hazards losses within their portfolios and, therefore, should be willing to offer loans to such clients.

Target Group

The scope of the target group should include all people falling under the "low income" definition. Besides people working in the agricultural sector, it could also include fishermen, people working in the tourism industry, and also shop owners, taxi drivers etc. Wide availability, simplicity and scalability enable as large a market as possible for people to easily hedge against livelihood impacts of severe weather events.

Parametric Insurance Policy

The policy will run for one year after inception date and will respond to severe weather events, i.e. high wind speed and/or excessive rainfall. The simple structure is that the policy will pay out the pre-agreed amount if certain wind speed and/or rainfall amounts (the triggers) are exceeded at a certain measurement point (linked to the place of purchase of the policy), irrespective of any proven loss of the policy holder. There will be three triggers for wind speed and three for rainfall. One trigger point reflects smaller events, one each medium events and one each strong events. The amount of payout depends on the severity of the weather event. For smaller events, the payout will be, for example, one third of the policy limit, for medium events two thirds and for events triggering the maximum trigger (strong event) the payout will be 100% of the policy limit. As long as the minimum triggers are not exceeded, the policy will not pay out, however, even if the policy holder suffered losses. The LPP will be offered in fixed blocks of coverage, perhaps \$100. In order for purchasers to adjust the insurance coverage to their individual needs, they may purchase more than one policy. If, for example, a policyholder knows from experience that the repair of a boat, damaged during a hurricane, costs around \$500, he/she might decide to purchase five "slices" of coverage for the total coverage amount of \$500 required.

The LPP is a simple and easy-to-understand insurance policy with clear description of coverage with no exclusions at all. The flexible amount of coverage due to "slices" allows people to adjust the coverage to their individual needs, not only for hurricane losses, but for all extreme weather events.

Link to Disaster Risk Reduction

An important feature of the LPP is an SMS-based warning and claims notification system. The SMS warning system is a technically simple way to inform policy holders about upcoming weather events via mobile phones. People will receive explicit warning in case of upcoming weather events and so they have the possibility to react in time and secure their assets. Such a system – properly managed and accepted by policyholders - could lead to a significant reduction of losses, one of the intended side effects we wish to achieve. It is again worth emphasising that the payout on the policy will still be the same even if an individual policyholder's loss is reduced due to good preparations.

The SMS claims notification system sends out an SMS to all policy holders with a triggered policy to notify them when a trigger level is reached. At the same time the policy holders are informed about contact points/time frames to collect the insurance payout. Such a notification system creates full transparency to the policy holder about trigger events and her/his right to collect money.



The programme partners include:

The Munich Climate Insurance Initiative (MCII) manages the Climate Risk Adaptation and Insurance in the Caribbean programme. MCII bridges the implementation of the programme with policy processes such as the climate negotiations, where climate risk insurance measures are under active discussion. MCII monitors and reports on programme results and lessons learned to decision makers, adaptation practitioners, science, and insurance professionals.



The Caribbean Catastrophe Risk Insurance Facility (CCRIF) is the first and, to date, only multicountry risk pool in the world and serves as a regional catastrophe fund for Caribbean governments. CCRIF may serve as a regional risk management facility for the Climate Risk Adaptation and Insurance in the Caribbean programme. CCRIF has the capacity to aggregate risk or serve as a financial back up mechanism. The Facility has close ties to national meteorological and disaster management authorities, and has extensive experience with regional weather data and modeling. Also, CCRIF has recently expanded its capacity development activities in the region. CCRIF will work with MicroEnsure, Munich Re and MCII to sustainably add risk management and transfer tools to the adaptation portfolio of the Caribbean.



MicroEnsure is the global leader in providing back-office service for microinsurance, helping microinsurance providers fill gaps that help bring products to market such as designing products and negotiating with the risk carrier, training the sales staff, educating the clients, client management systems (data and data entry, reporting, claims processing). MicroEnsure partners with a range of microfinance organisations (MFI's), global NGO's, faith based networks and mobile phone companies to reach low income communities in significant numbers.



Munich Re, the world's leading reinsurer, contributes its expertise in product structuring and risk modeling, the largest database on natural catastrophes, and understanding of regulatory issues to the Climate Risk Adaptation and Insurance in the Caribbean programme.

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