



Understanding climate risk insurance

What is climate risk insurance?

Climate risk insurance describes a suite of instruments for financial risk transfer that provides protection against risks arising from extreme weather events that are increasing in frequency and intensity because of climate change. The mechanism can offer regional entities, governments, institutions, companies, community groups, households and individuals protection against loss of life, livelihood or assets caused by extreme weather events. It ensures effective and rapid post-disaster payments to the insured individual, household, community group, company, institution, government or regional entity.

Why is climate risk insurance important?

Climate change increases the frequency and intensity of extreme weather events worldwide. Poor and vulnerable people in developing countries will be disproportionately affected, especially as they have fewer capacities to cope and to adapt.

The impacts of climate change can threaten development achievements by increasing not only the incidence, but also the severity of poverty. Climate impacts undermine resilience, for instance the capacity to recover and absorb losses from these events, especially that of poorer countries and their communities, by reducing their agricultural productivity, weakening water and food security, increasing the incidence of diseases, and threatening the existing infrastructure, economic productivity and value chains.

Climate risk insurance protects regional entities, governments, institutions, companies, community groups, households and individuals from the adverse effects of climate-related extreme weather events such as droughts, floods and tropical cyclones and reduces the burden, as risks are spread across many shoulders even before potential damage occurs.

Climate risk insurance: an important component of climate risk management

Despite significant mitigation of greenhouse gas emissions, states and societies need to prepare for the unavoidable impacts of extreme weather events exacerbated by climate change. Adaptation efforts and disaster risk management can significantly reduce but not entirely eliminate negative impacts of extreme weather events.

Innovative solutions of risk transfer, such as climate risk insurance, help to prepare for these risks. Insurance is most effective in combination with adaptation and disaster risk management measures since they avoid or limit negative impacts as far as possible in the first place. For example, governments can take precautionary measures to better protect coastal areas and their inhabitants from extreme weather events, e.g. construction of improved road systems or reforestation of mangrove forests.

How does climate risk insurance work?

Direct parametric insurance

Policy holders are individuals (e.g. farmers), households, labourers, market vendors or companies such as financial institutions or agribusinesses. Policies are often sold at the local level and retailed through a variety of channels, including microfinance institutions, farmers' cooperatives, banks, NGOs and local insurance companies. Insurance against extreme weather events like drought, cyclones or floods therefore entitles policy holders to a claim on the basis of predefined parameters. Payouts can serve various purposes, e.g. purchasing food to compensate harvest losses or continuing payment of school fees. Direct insurance can unlock opportunities that increase productivity, e.g. helping to increase savings and creditworthiness as well as to increase investments in higher-return activities.

Indirect insurance

In indirect insurance schemes, policy holders are governments or municipalities. Indirect insurance can be implemented on a macro level, insuring national or local governments, and on a meso level, insuring cooperatives, micro-finance institutions, credit unions and NGOs. Payouts to those affected by extreme weather events are intermediated by the policy holders. The final target group thus benefits indirectly, e.g. from food distribution financed by insurance payouts following a drought, or from the timely reconstruction of infrastructure in affected regions. Indirect insurance thus reaches a large number of people within a short period of time, e.g. by channelling emergency funds through existing social protection programs.

Potentials of climate risk insurance

Climate risk insurance is a financial tool diversifying and smoothing risks from climate-related extreme weather events among people and across time. It protects people, companies, institutions and governments and reduces their burden, as risks are spread across many shoulders even before potential damage occurs. Climate risk insurance helps to provide timely and reliable finance to cover parts of the economic losses, in particular compared to other (usually) ad hoc post-disaster financing options, such as aid, loans and family assistance. This allows for rapid emergency assistance and reconstruction, helping to save lives, protect livelihoods and assets and safeguard development gains.

Additionally, climate risk insurance provides incentives for risk reduction by rewarding preventive measures with lower insurance premiums, which in turn reduces the overall exposure and/or vulnerability. Insurance schemes are based on the assessment of potential economic losses, which can help facilitate the identification of needs and priorities within policy development at national and global levels. It can also provide a form of risk assurance for private and public investment affected by changing weather patterns, ease disaster-related poverty and spur economic growth and development.

Challenges for climate risk insurance

Historical and up-to-date weather data is a precondition for climate risk insurances. However, data availability is still inadequate in many countries around the world. In addition, databases often do not exist or are not freely accessible. The large-scale collection of remote sensing data by satellites can be a possibility to improve and expand the data situation.

Markets serving the purpose to protect against the risks arising from climate change usually do not reach vulnerable and poor population groups. Therefore, in some cases it can be necessary and useful for development partners or donor organizations to provide financial support for improving and scaling up insurance programs. Support may cover various aspects: supervision, data collection, training, information campaigns, capitalization, or premium subsidies.



Women planting seedlings at a tree nursery in Ethiopia

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