SUBJECT

The development of sustainable insurance solutions requires thorough risk assessment, modelling and layering. Agricultural and climate risks are mainly of a systemic nature, i.e. they affect a large geographic area or large parts of the population simultaneously. If the insured risk is not adequately spread, one catastrophic event can threaten the viability of the whole scheme. To lower covariate risks, the portfolio thus needs to be diversified in terms of crops, type of risks, and different geographical regions.

Further diversification can be achieved through an adequate reinsurance programme. While local market-based insurance is suited to protect against more frequent risks, the extremely rare, highly catastrophic risk layer is more effectively absorbed through international reinsurance. Government and/or development partners can also step in as reinsurers of last resort. Since risk diversification is difficult to achieve with stand-alone pilot projects, insurance schemes need to be developed with a view towards reaching scale quickly.

The aim of the DERRIS project is therefore to share risk assessment tools and skills, to define adaptation and disaster recovery plans, and to promote financial instruments that encourage sustainable resilience, not only at industrial sites of economic importance, but also widening the scope to the entire productive structure of the country and its citizens.

CHALLENGES

The Mediterranean region is expected to face particularly negative climate change impacts over the coming decades. However, various studies have demonstrated that:

- more than 80% of Italian municipalities are located in areas exposed to hydro-geological risk and in 51% cases there are industrial facilities in the areas exposed to high floods and landslides risks (Source: Legambiente);
- The damage caused by extreme weather events have high impacts on economic stability and growth of the hit areas. Indirect damages are on average 2.5 times higher than direct damages (Source: European Insurance Committee);
- Italy is characterized by an insufficient insurance coverage against natural hazards and a lack of incentives to prevent and reduce disaster risk;
• 90% of SMEs obliged to suspend production longer than a week fail within one year (Source: AIBA).
• At global level, Italian SMEs are among those that most underestimate impacts of extreme weather events on their business (Source: Zurich).

While SMEs represent the vast majority of the Italian economy (including 80% of its workers), they do not have adequate risk assessment tools for climatic hazards and have limited resources to invest in resilience measures.

**SOLUTION**

Transfer of knowledge and awareness raising

Technical support and training sessions were provided to the Public Administration and SMEs by insurers and an academic consortium specialized on providing vocational training on integrated business risk management.

- Organisation of training sessions for SMEs to provide knowledge on climate hazards, risks and emergencies management, risk engineering, insurance literacy, business continuity and disaster recovery planning;
- Technical support from experts from insurers to help SMEs to set their companies adaptation action plans (two field visits were organized in each of the 30 pilot companies);
- Organisation of training sessions to municipalities involving a wide range of departments (dealing with environment, green areas, public works, infrastructures, etc) on issues such as risk management and emergencies management by local authorities, climate adaptation plans;
- Setting of communication tools to favour the engagement of a wider number of SMEs and local public authorities (tutorial, video, leaflet for companies, web-training).

**Creation of a climatic risks self-assessment tool for SMEs**

- Creation of risks maps gathering climatic data monitored by public and private organisations to make them available in a simple and immediate way to SMEs;
- Creation of a user-friendly self-assessment tool that enables SMEs to understand which risks they are exposed to in the event of extreme weather events, and which solutions they could apply within their business to prevent damages;
- Setting of a seven-point resilience index to help SMEs reduce their vulnerability to climatic risks, analysing, not only their facilities, but also the whole territorial context in which they operate, in particular the role of the public administration;

**LESSONS LEARNED**

- An intense and pervasive action is needed from different players (insurers, public administration, business organisations) to raise the awareness of SMEs on the impact of climate on business continuity;
- The role of insurers is moving from offering products to tackle the effects of climate change to offering services to tackle the impacts of climate change: knowledge and analysis to undertake prevention actions, IOT devices to increase earlywarning, services to restore business activities and therefore to limit loss;
- Given the current low level of awareness of SMEs on climate risks the decision was made to focus on the definition of user-friendly tools to transfer the know-how on risk assessment and risk management to SMEs;
- Capacity-building and knowledge transfer from insurers to the public administration and SMEs is key to move from awareness-raising to the planning of interventions to prevent and manage risks.

**Name of programme:**
Disaster Risk Reduction Insurance (DERRIS)

**Duration:**
September 2015 – September 2018

**Programme area**
Italy

**Name of component activity:**
Climate Change Adaptation Project for SMEs and Municipalities

**Cooperation:**
Unipol Gruppo S.p.a, CINEAS, National Association of Italian Municipalities (ANCI), Local Agenda 21 Network, Municipality of Turin.

**Implementing partners**
Municipality of Turin, National Association of Italian Municipalities (ANCI), Local Agenda 21 Network

**Target group:**
Small business, municipalities

**Documentation:**
www.derris.eu

**Contact person**
Marjorie Breyton
Project Manager DERRIS project
E marjorie.breyton@unipolsai.it

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This publication has been prepared by the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH and the Munich Climate Insurance Initiative (MCII) in the frame of the project “Promoting Integrated Mechanisms for Climate Risk Management and Transfer” funded by the German Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety (BMUB). The information in this publication is solely based on the project documentation provided by the project implementer(s).