

INNOVATIVE INSURANCE AND CLIMATE SERVICES IMPROVE AGRICULTURE SECTOR'S RESILIENCE



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Farmers' views collected in the **agriculture pilot** confirmed high exposures to weather and climate risks, along with a significant insurance protection gap. The pilot developed CoDepi - a web tool for co-designing index-based climate insurance. It uses farmer input on climate indicators, local thresholds, and historical bad years to better align insurance payouts with experienced losses. While CoDepi supports index design and validation, final payout calibration and pricing require historical loss data. A Shiny app on Seasonal Drought Forecasts for olive farmers in the Iberian Peninsula was also operationalised.

HAZARDS	STATUS	TARGET GROUPS	PILOT CONTEXT
Drought, heat and other adverse weather events	(present/outlook): recurrent crop losses across Europe/intensifying especially in southern and central Europe	farmers, agriculture experts, insurance companies, public authorities, climate change adaptation community	Andalucía in southern Spain focusing on the olive sector; market analyses in Italy and Finland

How can innovative insurance and climate services enhance agricultural resilience to weather hazards and climate change?

- co-developed, demand-driven, and tailored insurance products can complement traditional insurances and fill the existing insurance protection gaps
- fast payouts, simplified claims processes, clear triggers, and higher transparency with index-based insurance
- potential to improve farmers' income stability
- loss prevention with forecast-based insurance



Key Results

- Improved understanding of farmers' needs and insurance gaps in the agriculture sector. Surveys indicate that farmers are interested in new insurance solutions throughout Europe, provided they are transparent, reliable, and locally relevant.
- CoDepi - an adaptable co-design tool for creating and validating index-based insurance solutions for varied contexts.
- Using a convergence-of-evidence approach, a case study demonstration of the tool for reducing spatial basis risk by matching simulated historical payouts with farmer-reported bad years and cross-verification with independent climate data.
- Guidance for replication to diverse contexts, and operationalization of complementary climate services.



Recommendations supporting farmers to manage climate-related risks with insurances:

- Raise awareness of index-based climate insurance among farmers and farmer organizations.
- Expand simple, transparent, and fair index-based insurance that feature low basis risk.
- Understand the climate insurance regulatory and policy frameworks across countries.
- Develop products tailored to local hazards, seasonal calendars, farmer-reported "bad years", and farmer-defined payout thresholds.
- Use climate services to co-facilitate farmer adaptation and explore their integration in anticipatory index insurances for loss prevention.
- Establish targeted incentives, premium support, quality standards, reinsurance, and public guarantees at the EU and national levels.

Learn more:

CoDepi – web tool for Co-Designing Parametric Insurance

PIISA Report: [Pilots for Agriculture](#)

PIISA Report: [Insurance services for Mediterranean regions](#)

PIISA Report: [Potential for agricultural insurance in Boreal regions](#)

PIISA Blog: [Majority of Finnish farmers recognise the impact of climate change, but lack tools to manage weather-based risks](#)

PIISA Blog: [The role of index insurance in Agriculture in the face of Climate Change](#)

PIISA webinar: [Farmers First: Insurance that works for farmers](#)

PIISA webinar: [Market Feasibility of Index-Based Climate Insurance for Mediterranean Agriculture: Results from the PIISA Food & Agriculture Pilot](#)