About the Author:

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Matilde obtained a Bachelor's degree in European Studies from Maastricht University in August 2025. Her research focuses on European defence and security, especially European strategic autonomy. She has also researched EU enlargement, with a focus on Moldova. Since September 2025, she is enrolled in the Advanced Master in International Relations and Diplomacy at Leiden University. Her mission is to support European security and foreign policy through research and practical engagement.

About the publication:

3 Main Points:

How can the EU accelerate climate tool adoption for smallholders in Africa and SE Asia without increasing financial risk? Loan-based models create debt burdens during crop failures; thus, a grant-based instrument within the NDICI-Global Europe framework is essential to fund both technology and long-term support. These grants serve as a preventive stabilization tool, reducing global insecurity by protecting 260,000 farmers' livelihoods.

Highlight Sentence:

"Grant-based financing is a funding mechanism that does not require repayment, shielding smallholders from debt if harvests fail due to climate shocks."

Definition:

Threat Multiplier: A concept where climate change does not cause conflict directly but exacerbates existing social, political, and economic tensions, increasing the risk of instability.

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Policy Paper:

An EU Innovation Grants Instrument to Accelerate Climate Resilience Adoption Among Smallholder Farmers in Partner Countries

Climate change is increasingly recognised as a driver of foreign policy and security risks; EU institutions have described it as a 'threat multiplier' with serious implications for peace and security, and have called for integrating climate-related risks into security and defence policy planning (European External Action Service, 2022). Climate change is reshaping the natural and human systems worldwide, resulting in rising global temperatures worldwide through higher greenhouse gas emissions from human activities, which fuel severe natural disasters, such as heatwaves, floods, storms, droughts, and wildfires, that threaten lives and critical infrastructure (World Health Organisation, 2023). For the EU, investing in

adaptation and resilience in partner countries is therefore not only an environmental or development matter: it is also a preventive stabilisation tool that can reduce the likelihood that climate impacts cause wider instability and humanitarian crises, requiring costly emergency interventions, while also strengthening global support and financing for climate resilience (European Commission, n.d.).

Against this background, smallholder farmers constitute a key intervention point. They are often highly exposed to climate shocks and have limited assets, such as insurance or savings, to recover from extreme events (Thompson, et al., 2023), despite the existence of investment programmes by other private foundations (e.g. The Rabobank Foundation). The adoption of practical resilience tools in the long term requires a capable actor such as the EU to ensure monitoring, maintenance, training and coordination with the local communities to increase its effectiveness.

This policy paper proposes a dedicated EU Innovation Grants Instrument for smallholder climate adaptation in partner countries in Africa and South-East Asia. It will do so using the existing framework provided by NDICI–Global Europe, the EU's main external financing tool, and aligned with Global Gateway investment partnerships. The facility would finance first, the adoption of climate technologies, and second, it would support the post-adoption support, through training, repair networks and technical advice.

High exposure, low adoption

Climate change is placing smallholder farmers at great risk by disrupting the weather patterns and ecosystems. Increasingly frequently, droughts, floods, and other natural disasters damage crops and livestock, reduce yields and increase the risk of crop failure. This directly threatens the income of small farmers, who often do not have access to the necessary resources to safeguard their production, and therefore live at the poverty line (UNDP, 2025).

Despite the existence of investment programmes, climate risks are expected to increase in smallholder farming systems in the form of extreme events; yet, the adoption of climate resilience tools remains too slow. A major obstacle is practical implementation: tools are not always designed for the smallholder context; maintenance, repairs and locally

accessible support needed may be lacking. As a result, despite the existence of climate tech tools, resilience does not result in sustained resilience outcomes in practice.

Finance as an adoption barrier: why grants matter

Finance is central to the adoption gap. Loan-based approaches can help acquire the technologies, but they often primarily benefit better-resourced and wealthier farmers. In contexts where climate change creates income volatility, debt-financed adoption of climate technologies can increase vulnerability, especially if farmers are expected to repay even after harvest failures. For this reason, grants avoid debt burdens by not generating the debt that loans can entail for smallholder farmers, especially in lower-income contexts.

A grant-based approach is also a preventive mechanism. The aim of grants is to reduce future crisis costs by funding resilience, rather than financing post-disaster recovery. Moreover, grants can be designed to avoid dependency by being time-bound, targeted at initial adoption and the immediate post-adoption phase, and linked to clear milestones, such as training completed and technology installed.

The EU's role: external action

The European Union is already internally deploying climate technology for smallholder farmers to boost sustainability, resilience to extreme weather, and stability of income through initiatives under the Common Agricultural Policy (CAP). Key focus areas include affordable digital solutions, circular economy techniques (biomass to energy), and soil health management, with projects aiming to make these technologies accessible to small, resource-constrained farms (European Commission, 2023).

However, the EU has the institutional and financial architecture to support climate resilience beyond its institutional borders in partner countries. The Neighbourhood, Development, and International Cooperation Instrument (NDICI-Global Europe), launched in 2021, is the EU's main instrument for international cooperation and external action and its designed to contribute to sustainable development, prosperity, peace and stability worldwide. In parallel, the Global Gateway strategy sets the framework for investment partnerships that support sustainable, resilient infrastructure and explicitly includes investments in climate mitigation and resilience.

Given this existing framework, the EU is the right actor for this initiative, as it has both strategic incentives, a wide network of partners and the delivery capacity to successfully support smallholder farmers in Africa and South-East Asia.

First, the EU's own security and foreign policy interests are directly affected by climate-generated instability, so investing in resilience mechanisms abroad also represents a strategic choice. Second, the EU can operate through a wide range of established frameworks and instruments, giving it different roots to support this initiative. Third, through coordination among Member States, it can set up common standards for transparency and monitoring, making outcomes visible and comparable across countries.

Policy proposal: an EU Innovation Grants Instrument for climate adaptation

This policy paper proposes:

- ***Establishment:*** of a dedicated Innovation Grants Instrument for smallholder farmers' climate adaptation within EU external action.
- ***Purpose***: accelerate the adoption of climate adaptation and resilience technologies while avoiding the risk of debt associated with loan-based financing in fragile contexts.
- ***Eligible climate technologies include***:
    - drought- and flood-tolerant seed varieties
    - solar-powered irrigation
    - efficient water pumps
    - rainwater harvesting technologies
- ***Grants should also cover enabling conditions for sustained adoption:***

- Training
- Local maintenance capacity
- Access to technical expertise

- ***Delivery***: EU delegations in collaboration with local communities and partners on the ground.
- ***Eligibility criteria*** prioritise vulnerability and exposure to climate risks, while accounting for the feasibility and sustainability of use.

A clear benchmark for delivering: portfolio targeting and measurable reach

To strengthen the accountability and political signalling, the project should be linked to a clear target. The benchmark is to support 260,000 farmers in Africa and South-East Asia by 2035. The allocated funds should be monitored through public reporting on allocations and outcomes, ensuring comparability across countries over time.

Monitoring and evaluation

The effectiveness of the Innovation Grants Instrument should be tracked using a set of indicators. These should reflect:

- *Reduction* in reported climate-related yield loss
- *Increase* in farm income
- *Increase* in production/yields
- *Improvement* in the quality of life/livelihoods
- *Expansion* in the number of farmers reached through the instrument

These indicators would also signal improved livelihoods and food security, reducing the risk that climate shocks escalate into broader crises.

In conclusion, treating climate adaptation as part of EU external action is strategically necessary: if climate change is a threat multiplier, then strengthening resilience in partner countries is a form of preventive stabilisation that can reduce the risk of wider crises. Smallholder farmers are a key intervention point because they are highly exposed to climate shocks, yet adoption of resilience tools remains too slow. An EU Innovation Grants Instrument would address this gap by enabling rapid uptake of technologies without adding burdens caused by debt to partner countries, especially in fragile contexts, thereby translating EU climate-security commitments into concrete resilience outcomes.

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