

Rooted in resilience:

Crop insurance as a fiscal tool for climate adaptation and nature restoration in the EU agri-food system

Wallis Greenslade and Daisy Jameson

5th October 2026

An introduction to CETEx

- A specialised research and policy centre within the new LSE Global School of Sustainability
- Support the reforms necessary to deliver sustainable, inclusive and resilient economies and financial systems across Europe and emerging markets
- Provide fiscal, monetary and prudential policymakers with the evidence base, technical implementation guidance and policy narratives to support the transition
- Launched in March 2024, scaled to 46 full-time staff



Centre for Economic
Transition Expertise

Research and Policy at LSE ■

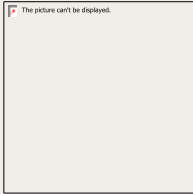
One: impacts to the crop sector from climate change and nature degradation

Climate change and nature degradation deliver compounding risks to the crop sector

80% of EU crop losses come from four primary perils

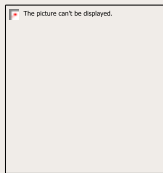
6.4% of EU crop output lost each year now

Without adaptation, we can expect a **66%** increase in average crop losses by 2050



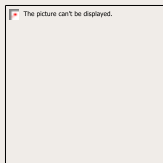
Chronic trends from long-term changes to the environment

- **Climate** change leads to higher average global temperatures
- **Nature** degradation affects soil health, pollination and pestilence



Acute shocks like floods, hail, drought or disease

- Driven by interconnected drivers of **climate** change and **nature** degradation
- Drought, heavy rainfall, hail and frost events estimated to have driven 80% of agricultural losses in the EU



Chronic trends and acute shocks can **interact** and **compound**, leaving the crop sector increasingly exposed and vulnerable to more extreme hazards

Two: Cascading risks beyond the farm gate degradation

Shocks to the agri-food system can cause disruptions to the wider economy

Food price inflation

- Severe if hit commodities with strong pass-through
- Food prices are volatile and asymmetrically 'sticky'
- Household expectations contribute to higher prices
- Outsized effect on lower-income households
- Central banks respond, increasing fiscal costs and further economic distortions

Disruptions to wider supply chains and rural economies

- Other sectors heavily reliant on agricultural outputs
- **Upstream:** e.g. fertiliser producers, on farm machinery
- **Downstream:** e.g. food manufacturing
- Wider economic disruption through production bottlenecks and supply chain delays
- Employment and financial stability impacts

Trade shocks

- Will hit export surpluses, a key source of income
- Downward pressure on the exchange rate, further exacerbating domestic inflation

Implications for the insurance & financial sectors

- Higher insurance premiums/market exit. This concentrates risk further
- Secondary barrier to credit access as lenders become unwilling to absorb the liability of uninsured crop failure
- Rural economy instability

Three: Governments acting as 'insurer of last resort'

There are increasing fiscal consequences from governments acting as 'insurer of last resort'



- Crop losses are increasingly becoming an unfunded, growing implicit contingent liability
- Often agricultural disaster relief has no designated reserves
- Creates fiscal risks
 - Underestimation of fiscal pressures
 - Procyclical expenditure stressors
 - Political pressure for progressively more generous relief packages
- The disaster relief frequently fails to sufficiently cover farmers' total losses

Characteristics of un- and under- insurance in the EU's crop sector



‘Single peril’ rather than ‘multi-peril’



‘Reinsurance protection gap’: Increasing reinsurance prices for crop insurers



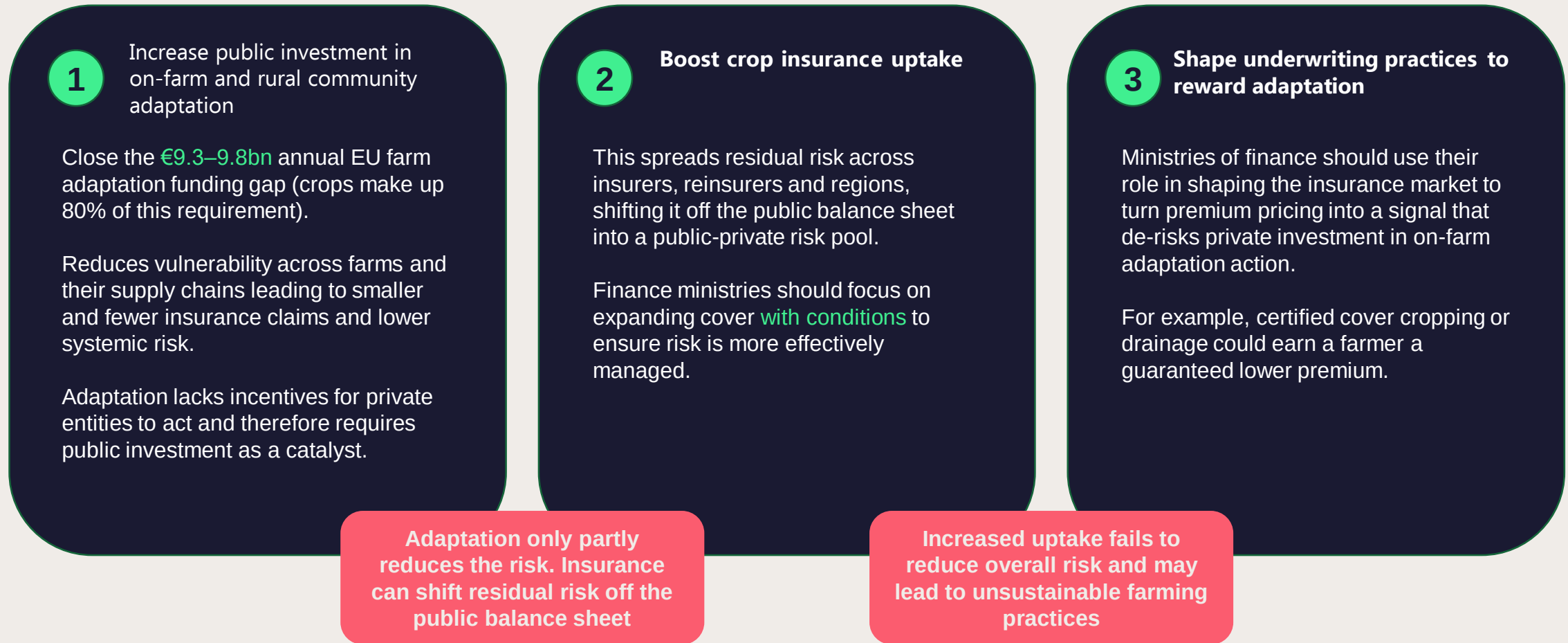
Indirect/cascading impacts excluded from policy scope



Insurance is an ex-ante solution and fails to address overall risk faced by farmers

Four: **the role of fiscal policymakers in building resilience in the agri-food system**

Three levers to move from ex-post fiscal relief to ex-ante resilience



“A 1% increase in insurance coverage could reduce the global cost of climate-related disasters to taxpayers or governments by 22%”



Centre for Economic
Transition Expertise

Research and Policy at LSE ■

Thank you and next steps