

The System adaptation for OneHealth under Climate change for Vulnerable groups and Ecosystems (SOLVE) project is a transdisciplinary initiative under the Belmont Forum and the FABLE Consortium.

SOLVE co-develops local adaptation roadmaps with societal partners to build resilient, healthy, equitable, and prosperous food and land systems. Using a suite of models, SOLVE integrates future climate extreme risks into long-term planning and promotes a OneHealth approach to better understand and address the complex interactions between people and nature.

THE CHALLENGE

Argentina faces the dual challenge of feeding its population while relying on agricultural exports for economic stability.

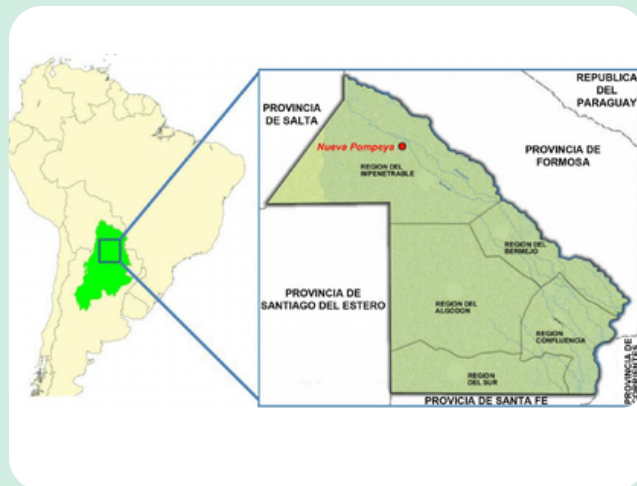
Past land-use changes driven by rising production demands have taken a toll on soil health, water resources, and biodiversity, including significant forest loss linked to crop and livestock expansion and intensification.

To design sound policies, a deeper understanding is needed of key issues such as climate adaptation and mitigation, dietary shifts, and agriculture-related health risks.



FOCUS AREAS

In Argentina, the Chaco province is among the most affected by agricultural expansion, where forests are being cleared for pastures and soybean cultivation, compromising the indigenous livelihoods and emitting large amounts of CO₂.



In the south, the six provinces of Patagonia also face land-use change and deforestation, increasing the risk of agriculture-related diseases such as Hantavirus.



STAKEHOLDERS & PROCESS

Stakeholders involved:

This case study is led by Fundación Bariloche, a research institute from Patagonia.

Fundación Bariloche collaborates with the National Institute for Agricultural Technology (INTA) and the National Science and Technology Council (CONICET), engaging stakeholders from the provincial and national governments, NGOs, and other relevant actors to co-develop pathways for sustainable food and land use systems for Argentina.

Methods developed and used:

- Co-define sustainable, nutrition-secure, and climate-responsible socio-economic pathways to 2050.
- Develop stakeholder engagement strategies, identifying regional strengths, weaknesses, opportunities, and threats faced by their regions, due to socio-economic and climate change, including deforestation, fires, and dispersion of vector-borne diseases, and others.
- Facilitate discussions on adaptation and mitigation with farmers and authorities (ministries, provinces, health sectors) using an interactive real-time platform to visualize the impacts of their choices.
- Model the potential impacts at the national and regional scale with the FABLE Calculator, making its results spatially explicit with DINAMICA EGO, and identify priority areas for production and conservation through a dedicated ad-hoc model.



Argentina



IMPACT

Who will benefit?

The most climate-vulnerable segments of the population will benefit, along with decision-makers who gain clearer guidance for policy. Argentina's scientific community will also benefit by engaging in a global consortium and applying new insights to regional challenges.

The case study will both draw from and enrich the FABLE Consortium's global open modelling infrastructure, addressing diets, climate adaptation and mitigation, and agriculture-related diseases. By applying these tools to local challenges, we aim to generate actionable insights for decision-makers.

The Argentina case study is led by [Fundación Bariloche](#). To get involved, contact Dr. Adrian Monjeau, amonjeau@gmail.com.

This case study was approved under the Belmont Forum CRA "Climate, Environment, and Health 2" (2023). Due to recent budget cuts, the team is now seeking alternative support, in coordination with the Belmont Forum.