

The FABLE Consortium: Supporting the long-term transformation towards sustainable food and land-use systems

Motivation

Shifting towards sustainable land-use and food systems is critical for meeting the Sustainable Development Goals and the objectives of the Paris Agreement, including food security, net-zero greenhouse gas emissions, and protection of biodiversity. Today's global food and land-use systems do not support these objectives. Instead, they drive massive biodiversity and forest loss, account for over a quarter of greenhouse gas emissions, and contribute to unhealthy diets and food insecurity.

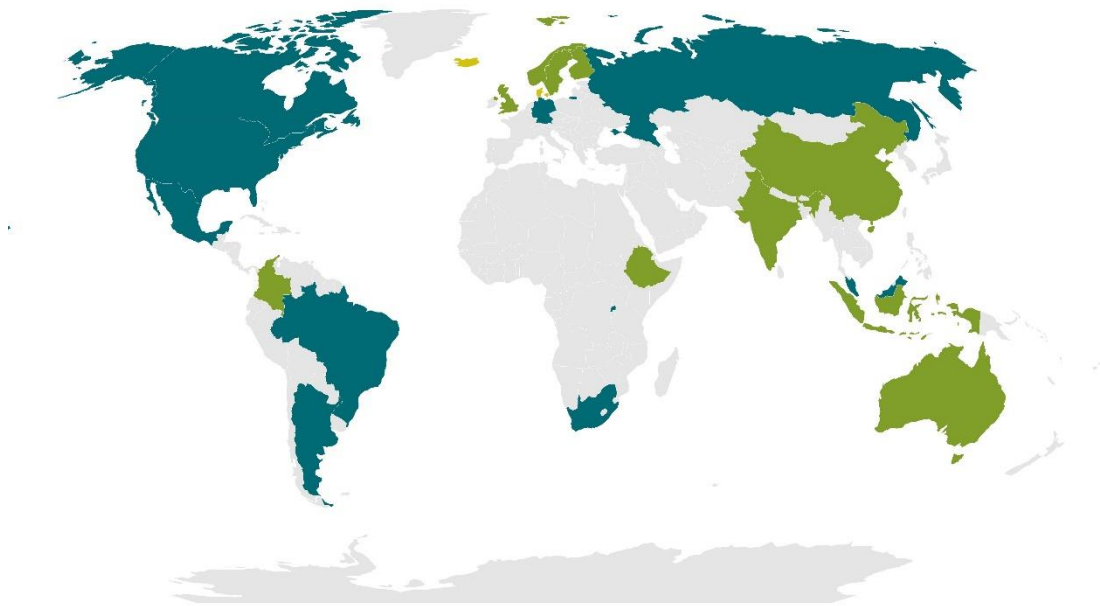
To design and implement the sustainable transformation of these systems, countries will need to carefully assess the trade-offs between the competing land uses for food production, carbon sequestration, and biodiversity conservation, among others. They will also need to account for their dependency on food imports and the international spillovers of their demand for imports on other countries.

These considerations are critical for national climate strategies, such as Nationally Determined Contributions (NDCs), biodiversity strategies, and other national policy frameworks. Yet, many countries lack integrated strategies that tackle the synergies and trade-offs between the multiple and interconnected pressures on land.

The FABLE Approach

Fortunately, solutions do exist to address these challenges. They are just not widely known or applied at scale.

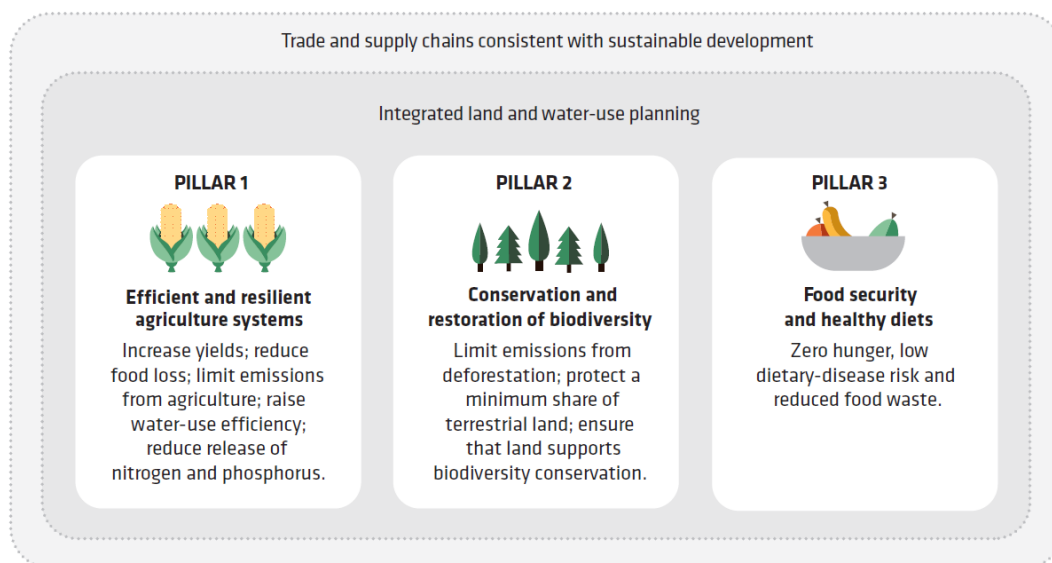
This is why as part of the [Food and Land-Use Coalition](#), the Food, Agriculture, Biodiversity, Land-Use, and Energy Pathways ([FABLE](#)) Consortium mobilizes top knowledge institutions from more than 20 countries to support the development of decision-support tools and long-term pathways towards sustainable food and land-use systems.



FOLU focus countries (light green) and other countries participating in the FABLE Consortium (dark green)

Consortium members have developed a shared framework for the analysis, guided by “three pillars for food and land-use”, and promote integrated land and water-resources planning within the context of international trade. Additionally, FABLE draws on the [FOLU Growing Better report](#) and advances the implementation of the Ten Critical Transitions.

Three pillars for sustainable food and land use, source: Schmidt-Traub et al. (2019)



The Consortium pursues three objectives, with each FABLE country team undertaking its own analyses as part of the global Consortium and coordinating closely with all other FOLU activities:

1. **Capacity development and sharing of best practice for data management and modeling of the 3 pillars.** Many countries lack the expertise to model the impacts of policies across the 3 pillars and make limited use of spatial data for decision making. Therefore, the Consortium provides access to and training on modeling tools, including its openly available, non-spatial [FABLE Calculator](#) and integrated, geospatially-explicit modeling with trade analyses, such as IIASA’s [GLOBIOM](#) and PIK’s [MAGPIE](#).
2. **Development of mid-century national pathways.** Each FABLE country team prepares integrated, long-term “pathways” that describe the food and land-use systems changes needed to achieve mid-century climate and sustainability objectives at the national level. Through iterative aggregation of all FABLE countries' national pathways (via so-called “Scenathons” for “Scenario Marathons”), country teams see the impacts and spillover effects of national objectives at the global level, ensure that trade is balanced, and share lessons on how food and land-use systems can be transformed to meet the SDGs, the objectives of the Convention on Biological Diversity, and implement the Paris Agreement. In particular, the pathways developed can directly support efforts to revise NDCs and prepare long-term low greenhouse gas emissions strategies (LT-LEDS).
3. **Analysis of national policy options.** By building capacity on the use of country-specific decision-support tools for policy analysis, governments and their stakeholders can test the impact of proposed policies across the three pillars of sustainable land-use and food systems, which can help raise the level of ambition and promote policy coherence.

The FABLE Secretariat, led by the International Institute for Applied Systems Analysis ([IIASA](#)) and the UN Sustainable Development Solutions Network ([SDSN](#)), with support from [EAT](#) and the Potsdam Institute for Climate Impact Research ([PIK](#)), coordinates the FABLE Consortium. The Consortium’s first report [Pathways to Sustainable Land-Use and Food Systems](#) was published in July 2019 and presents initial pathways from 18 countries. Its second report is due out in June 2020 and will focus on options for integrating food and land-use into countries’ NDCs and LT-LEDS and for creating synergies between biodiversity and climate policies at the national level.