

Background

A growing number of countries, including almost all G7 members, have made “net-zero” commitments for mid-century for their entire economies. But few, if any, have actually focused on food and land use systems (their focus has been on energy and transport), or how food and land use systems will play into their national net-zero commitments. Getting to net-zero—or actually “net-negative”—emissions in food and land use systems will be critical if countries are to achieve overall economy-wide net zero emissions and fulfill the Paris Agreement. The proposed Alliance seeks to address this.

1.1 What, in brief, is the solution?

The “Food and Land Net Zero Country Alliance” would be a voluntary coalition of countries that commit to net-zero food and land use GHG emissions by 2050 (with intermediate targets for 2030 and 2040) and work to achieve this target in a manner that supports economic development, food security, and climate stability. Members develop bold strategies for achieving the target, receive technical assistance, take action (e.g., via policies, practices, investments), and monitor progress. A coalition of technical partners would provide support where needed. The Alliance’s scope would cover the entire food system (both production and consumption) and land system (e.g., forests, grasslands, wetlands, croplands, rangelands)—embedding food and land use deep into national decarbonization pathways and post-COVID recovery.

Specific activities include (but are not limited to):

- **Targets** – Make bold, quantitative commitment and enhance ambitions to eliminate GHG emissions from food and land systems (a.k.a. AFOLU) in Nationally Determined Contributions (NDCs) and Long-term Low-Emission Development Strategies (LT-LEDS)—while ensuring coherence with other political objectives such as food security, employment, and Convention on Biological Diversity targets.
- **Strategy** – Develop a comprehensive, evidence-based mid-century pathway and “national implementation roadmap” for achieving the net zero target—covering all relevant food and land use sectors. The strategy should be able to get the country to net zero (or below) emissions in the food and land use sectors by 2050 while also helping the world meet rising food demands (and not “offshore” or shift food production and emissions to other countries).
- **Measurement** – Scale up support to strengthen countries’ capabilities to better quantify and understand their national food- and land-related GHG emissions.
- **Innovation** – Identify and prioritize the innovations in technologies and practices needed to achieve the target by mid-century.
- **Policy** – Identify and prioritize the public policies to catalyze the shifts needed to achieve the target.
- **Investment** – Attract the investment to support the innovations, public policies, and private sector practices.
- **Monitoring and communications** – Monitor and communicate progress (and challenges) over time.
- **Implementation support** – Help align technical and/or financial support for implementation when and where needed.

The Alliance would foster mutual sharing of ambitions and experiences, know-how, and joint access to a cohort of technical assistance providers. By linking with programs like the NDC Partnership, members might be able to access financial assistance, as well.

1.2 What was/were the source(s) from which this solution emerged?

This solution emerged as a synthesis of multiple ideas from various participating members of Action Track 3 (as well as other Action Tracks). This solution bridges them together into a coherent whole and “big agenda-setting initiative”. Importantly, we noticed that there was a major gap in the world and among the suite of Food Systems Summit game changers; this solutions fills that gap.

1.3 What problem is it trying to address within food systems?

There is currently too little national government attention on and capacity for developing and implementing strategies that eliminate greenhouse gas emissions from food and land use systems. National focus to date is still primarily on energy and transportation emissions. Food and land systems (e.g., forests, grasslands, farmlands) are too often treated as “afterthoughts” when it comes to the climate agenda. Moreover, the food agenda too often treats climate as an “afterthought”. And when climate strategies do identify agricultural solutions, they rarely include rigorous quantification of how to do it and of who benefits, which are critical for credible roadmaps to truly low-carbon systems. The proposed solution seeks to address these challenges.

1.4 Why is addressing that problem important for achieving the goal of your ACAI?

Addressing this problem is critical if the world is to achieve all of the following at the same time: food security, rural economic development, climate security (i.e., limit global warming to under 1.5°C), and biodiversity conservation.

1.5 How can this solution address that problem?

The Alliance will address the problem “head on” by generating national government attention on getting greenhouse gas emissions from the food and land use sector to zero (and even below zero in order to enable the entire economy to go net zero), by building the domestic capacity to develop and implement “net zero” strategies, by facilitating sharing of “what is working” and “what is not working” amongst participants (in a mutually supporting fashion), by monitoring progress, and by publicly communicating results (giving “kudos” where warranted and inspiring others to join on the journey).

1.6 Why does this solution align to the definition and criteria for a ‘game changing solution’ developed by the Summit?

This solution is “game changing” because it:

- Has impact at scale. It gets entire countries on the path to net zero (or better) food and land use systems. And seeing countries make commitments and progress will encourage other countries over time to join and embark on the path, as well.
- Is actionable. It involves influencing government policies, business practices, and financial investments. Moreover, the Alliance provides needed technical assistance to countries.
- Is sustainable. The Alliance gets the ambitions baked into NDCs and the target goes to mid-century.
- Embeds accountability. The Alliance is making a public commitment and will transparently track progress over time.

1.7 What is the existing evidence supporting the argument that this solution will work, or at least that it will achieve the initial outcomes described above?

Coalitions of willing countries have proven to be an effective way of breaking out from status quo ambitions and forging new, progressive paths forward. A few countries already have net zero emissions ambitions from the food and land sector (e.g., Denmark). Others are exploring.

Roadmaps for deep decarbonization of the food and land use sectors have been developed for some countries. The ability to monitor all forms of land cover/use and their associated carbon stocks and flows is under development (via a grant from the Bezos Earth Fund), and greenhouse gas accounting rules for this space are emerging, as well. Likewise, momentum around “net zero is growing, with a particular push by the UN Secretary General.

1.8 What is the current and/or likely political support for this idea?

We believe that several countries would be interested in this Alliance. These include (but are not limited to): New Zealand (a leader in working on GHG emissions reductions from agriculture), Denmark (which has set a net zero target for its agriculture sector), Colombia (an active Food & Land Use Coalition country), and China (an active Food & Land Use Coalition country interested in how to dramatically reduce non-CO₂ emissions in its agriculture sector). Likewise, over time, countries active in the NDC Partnership should be supportive since they will need to be continuously ratcheting up their NDC ambitions (which means further lowering agricultural emissions and getting the land system to start removing carbon from the atmosphere). A number of countries actively involved in the FABLE Network and 2050 Pathways Platform would find the Alliance an effective, targeted initiative for converting their net zero efforts into action when it comes to food and land use systems. When it comes to other stakeholders, we believe (based on their emerging strategies) a number of institutions would be supportive as well, including development banks, members of the Food & Land Use Coalition (which includes business groups like WBCSD), research institutions (e.g., the CGIAR system, Global Research Alliance on Agricultural Greenhouse Gases), and more.

1.9 Are there certain contexts for which this solution is particularly well suited, or, conversely, contexts for which it is not well-suited at all?

This solution is well suited for nearly any context. It is relevant for any form of agricultural system (e.g., crops, livestock) and land types (e.g., croplands, pastures, forests, wetlands, grasslands). It is relevant for OECD and non-OECD countries (technical assistance would be provided). A key criterion is that participating countries are committed to seriously addressing greenhouse gas emissions from their food and land use systems. It would be difficult, however, to have Alliance activities occur in countries with current high rates of conflict (for safety reasons).

1.10 Who are the key stakeholders to be further involved in the process of developing and refining the solution idea?

Sustainability NGOs (e.g., WRI, WWF), multistakeholder coalitions (e.g., Food & Land Use Coalition), NDC Partnership, relevant UN agencies (e.g., FAO, UNEP), research institutions (e.g., GGIAR, CCAFS, Global Research Alliance on Agricultural Greenhouse Gases), and more. Selected developed countries (e.g., New Zealand, Denmark) and emerging/developing economies (e.g., Colombia, China). Selected foundations.