If agriculture is to adapt to climate change and reduce its carbon footprint, farmers themselves have to be a core part of the solution.

**KEY POLICY RECOMMENDATION:**
Attention and voice must be given to smallholder farmers, who produce 35% of the world's food, by mainstreaming them in policy discussions and decisions on making farming more sustainable.

**Background**
Agriculture, a key source of carbon emissions, is often framed as an industrial behemoth, impacting the climate and causing many problems. However, the people within agricultural systems are often forgotten. It is crucial to realize that smallholder farmers, who produce 35% of the world's food, are a core part of the climate solution if we are going to adapt agriculture to protect communities and make them more resilient while also protecting and restoring the habitats and biodiversity they support.

**Research at Nottingham**
Within the Future Food Beacon at the University of Nottingham, there are several projects focused on improving the livelihoods of farmers and helping them engage in sustainable practices. Some of our projects in Africa include developing value-added products which farmers in Africa can produce from their key crops to gain additional income; developing new crop varieties that are drought tolerant and easier to grow and cook; increasing the use of nutritious wild foods such as Baobab and other African wild edible fruit; examining the possibility of restoring some traditional African farming practices by understanding archived colonial-era soil maps which documented these practices. In Latin America and the Caribbean, our researchers work on understanding processes and challenges in cocoa farming. In addition we are concerned with supply chains, and the way alternative stories of food production can support transitions to more equitable food systems. Finally, we are studying the future of meat in sustainable futures. Our Future Proteins Platform is investigating alternative proteins, both as food and feed using other sources of protein to feed animals, as opposed to foodstuff which can be eaten by people.

**Implications for Climate Change**
Research by the FAO (Food and Agriculture Organisation of the UN) has estimated that five of every six farms worldwide are less than two hectares in size, but produce 35% of the world’s food. Many of the world’s farmers are smallholders who live in difficult and challenging conditions, battling droughts, failing crop yields, or flooding as the climate changes. Building resilience into these agricultural systems through our diverse research is therefore essential to enable food production and the livelihoods of millions to continue in the face of a drastically changing climate. By centring on farmers, and working to support them through innovation, scientific information, and technology, we can change the future of agriculture and the food we produce and consume.

**Further Reading**
Read about the [Future Food Beacon](https://www.nottingham.ac.uk/research/centre/future-food-beacon/)
Read the [COP26 blog](https://www.nottingham.ac.uk/research/centre/future-food-beacon/cop26/)  

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