I recently returned from a trip to Washington DC to gather with colleagues and partners engaged in the work of grappling with ways to ensure we can grow enough food to feed the world’s poorest in the face of climate change.

Climate change is a deep concern for everyone, and it will most certainly impact the lives of those who live the developed world. It already has. But the reality is that it will affect poor people’s lives the most. According to the Intergovernmental Panel on Climate Change’s latest report, it will make it even harder for farmers, who make up most of the world’s poor, to grow enough food to feed their families and earn an income.

A business as usual scenario will result in reduced crop yields by as much as 2% per decade for the rest of this century, slowing down economic growth, making poverty reduction more difficult, further eroding our food security and creating new poverty traps.
It has taken 30 years to get this from the lab to the field. With intensifying climate change, we no longer have the luxury of such long time lags.

It is clear that addressing the impacts of climate change is mission critical.

The Agricultural Development Program of the Bill & Melinda Gates Foundation focuses on the objective of sustainable productivity growth for 14 staple crops and 4 livestock commodities in 11 target geographies in Sub-Saharan Africa and South Asia. We contribute to climate change adaptation by investing in research to “climate-proof” staple crops.

Those of you who follow The Economist would have seen an article recently on the new lines of rice that we affectionately call “scuba rice.” The scientists at the International Rice Research Institute (IRRI) identified resistance to flooding so that even after 10 days of flooding you still get a crop of rice and actually you get a significantly improved crop yield.

As exciting as this development is, an important point here is that this work originally started in the 1980s. It has taken 30 years to get this from the lab to the field. With intensifying climate change, we no longer have the luxury of such long time lags.

We have also invested with partners to develop 140 new varieties of drought tolerant maize that are now in 13 countries, on 1.23 million hectares benefiting 3 million households, being supplied by 110 African seed companies. And, we have intensified our investments in under-invested staple crops such as cassava, sweet potato, yams, sorghum, pearl millet and finger millet. These crops have evolved tolerance for severe weather.

Livestock is often held up as being one of the big agricultural contributors to climate change problems. That’s why we’re investing in increasing productivity of smallholder dairy, for example, we will not only increase income and nutrition for smallholder households, but also drive down the emissions intensity.

A critical focus going forward will be to develop consensus and a common, holistic approach to sustainable productivity growth.

An important partner in this work, The Chicago Council on Global Affairs, released an important report on these issues last week and I share their urgent call to make global food security one of the world’s highest priorities.

So, despite the enormous challenges, we are optimistic. But as Bill and Melinda Gates are fond of saying, we are impatient optimists. We need to protect and intensify the global investments in agricultural research to get research innovations more quickly into the field. We need to form radical collaboration to make sure that the research is demand-driven and gets scaled up in non-linear manners. Climate change science is showing us is that we do not have the luxury of time.

We stand ready to act on this mission critical agenda for sustainable productivity growth and poverty reduction.