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Thirty-second McDougall Memorial Lecture

Lecture in Honour of Frank L. McDougall

Delivered by

Mr Bill Gates, Co-Chair and Co-Founder of the

Bill & Melinda Gates Foundation

Combating climate change and hunger through Innovation

First, I want to thank Director-General Qu for inviting me to speak today, and for his leadership in advancing FAO's core mission to fight hunger and food insecurity around the world. Director-General Qu is building a great team and I am excited about the progress to come.

I am honoured to give this year's Frank McDougall Memorial Lecture and to follow in the footsteps of the many world leaders, thinkers and innovators who have been a part of this series since 1958.

In his famous memo, McDougall called for a global organization that would work toward "the goal of diets adequate for health for all." This lecture series is a fitting way to honour McDougall and to recommit to his vision of ending hunger worldwide. The world relies on the expertise and leadership of FAO to make progress towards that goal.

Even before the pandemic struck, we were starting to lose ground. The number of people experiencing food insecurity has gone up by 60 million since 2014.

We are now facing the largest global public health and development crisis in a century. While estimates vary, COVID-19 may have pushed as many as 132 million people into hunger. Nations all over the world are in danger of acute food crises in the coming months.

As you all know, climate change is making everything more difficult. Hundreds of millions of smallholder farmers across the world are feeling these impacts – lower yields, shorter growing seasons, more unpredictable weather and devastating pests like the giant locust swarms we saw last summer.

These climate pressures threaten farmers' livelihoods, as well as all those who rely on the food they grow. In some countries, half of the jobs are related to agriculture. In those places, this negative cycle could cause a catastrophic economic crash, pushing even more people into poverty and hunger.

Climate change is estimated to have already cost us seven years of growth in agricultural productivity. Over the next several decades, the warming climate is expected to cut growth in global yields by as much as 30 percent and increase farmers' exposure to droughts and floods by as much as 44 percent; also it will raise food prices by 20 percent. Overall this will plunge over 50 million more people into hunger.

The longer we delay in reducing our collective greenhouse gas emissions to net-zero, the worse these consequences will become.

It is particularly unjust that the nations who have contributed the least to greenhouse gas emissions – and who are now waiting the longest for COVID 19 vaccines – are the ones most impacted by these challenges.

That was the focus at the recent Africa COVID-Climate Leaders' Dialogue, where two dozen African leaders called for prioritizing investments in climate adaptation, launching the African Adaptation Acceleration Programme.

As these leaders argued, investing in climate-resilient agriculture is critical for Africa's recovery from the pandemic and the long-term goal of a sustainable, resilient economy.

Smallholder farmers are accustomed to overcoming incredible adversity and are constantly innovating based on changing weather and market demands.

But they cannot solve this alone. The scope of these challenges requires international solutions, and I remain optimistic that we can tackle them if we work together.

The world has set itself some ambitious targets for progress with the Sustainable Development Goals (SDGs). As you know, SDG2 aims to end hunger by 2030, and sustainably double both the income and productivity of small-scale producers.

But ambitious targets are not meaningful if we cannot measure the progress towards them, which is currently a challenge with productivity, income and sustainability targets.

To reach these goals, we need better data to track our progress and see where the exemplars are and follow those best practices. The African Union is working on this and our foundation is proud to support FAO's statistical work to fill these data gaps.

For example, the "50 by 2030" initiative, co-led by FAO, IFAD and the World Bank, aims to help fifty low- and middle-income countries gather, analyze and use data to track progress and improve policymaking.

The Ceres2030 project uses new advances in machine learning and other powerful tools to build a database of knowledge on effective interventions for smallholder farmers, so we can scale up ones that are working and phase out those that are not.

More alignment on a "next tier" of metrics, as well as data-driven public scorecards to track progress, can also help ensure we are moving toward targets. The African Union's work on an African Agricultural Transformation scorecard is a promising example of what we need.

So better data and scorecards are crucial pieces of the puzzle. Another critical component is support for innovation. We need investments in agricultural Research and Development (R&D) now to ensure farmers can sustainably produce a broad assortment of nutritious food for years to come.

There is already good work in Africa to help farmers adapt and create long-term solutions. For example, Ethiopia is using big data to develop early warning systems for wheat rust outbreaks, which have cost farmers hundreds of millions of dollars over the last decade. This mobile-based system is updated daily and it has already prevented one potential wheat rust epidemic, which would have happened four years ago.

In Kenya, 1.4 million smallholder farmers are now using a mobile platform called Digifarm to purchase inputs, get technical advice, apply for credit and crop insurance and find buyers, enabling them to more quickly adapt to changing conditions.

A key leader of innovation in this space is CGIAR¹. Fifty years ago, when Norman Borlaug gave this lecture, he argued that: “the first essential component of social justice is adequate food for all mankind”.

Then, Borlaug and his team at CGIAR helped save more than a billion people from starvation. Working with governments, especially agriculture ministries, CGIAR is still doing game-changing work today. To help end hunger, provide for better nutrition and safeguard biodiversity, their researchers are developing new crop varieties that are both more productive and resistant to climate threats.

Each dollar spent on CGIAR research produces over USD 10 in benefits for low-income farmers. It is critical that FAO and the other Rome-based Agencies provide the technical assistance and financing to scale up all the innovations and adoptions coming from CGIAR.

We have two big opportunities later this year to take big steps forward: the UN Food Systems Summit in September and the COP26² Climate Conference in November. We need additional commitments from donors, governments and the private sector at these events to support innovation, better use of data and other efforts to get new tools into farmers’ fields. I hope the discussions today can lay the groundwork for how to maximize the potential of these moments to make a real push forward.

By working together, using data to find effective interventions and encouraging innovation, I am confident we can tackle climate change and help farmers adapt. We can achieve the Sustainable Development Goals. And we can finally deliver on Frank McDougall’s vision: a world where no child has to grow up hungry.

Thank you.

¹ Consortium of International Agricultural Research Centres

² 26th United Nations Climate Change Conference of the Parties