

**Food Systems Transformation:
Building Sustainable, Healthier, And More Equitable Food Through Systems
Thinking, Innovation and Stakeholder Cooperation**

Speech by Klaus Schwab, Founder and Executive Chairman, World Economic Forum

Dear Director-General Qu and Deputy-Director General Semedo,
Honourable Guests, Colleagues, Friends, Ladies and Gentlemen,

Thank you so much for your kind introduction. I am honoured to have the opportunity to give the World Food Day Lecture as part of the FAO Global World Food Day ceremony. I commend the FAO and the Rome-based agencies for their leadership in food systems, and their role in facilitating the UN Food Systems Summit and the follow-up coordination.

At the World Economic Forum, our mission is to improve the state of the world through public-private cooperation. We believe in the transformative power of innovation and entrepreneurship. And we believe that only systems change can solve some of the most wicked challenges we are facing today. Those include the climate crisis, the social and economic crises many societies are facing, and of course, the COVID crisis and its fallout.

The last year has been a pivotal one in many areas. But one area that concerns all of us gathered here today, is that food re-emerged at the centre of the global agenda.

That comeback was marked first of all by positive signs. For example, the World Food Programme was awarded the Nobel Peace Prize. And the UN Food Systems Summit took place this past September, with over 90 heads of state speaking on food systems at the UN General Assembly.

But there were also more worrying reasons for food to return to the global agenda. In many parts of the world, the COVID-19 pandemic could still go from a health crisis, to an economic crisis, to a food crisis. In some of the most vulnerable regions, this threat is exacerbated by existing and emerging conflict, and the impacts of climate change.

Sadly, after many years of progress, the number of people suffering food insecurity in the past few years has begun to rise again rapidly. Notably, in 2020 up to 811 million people were severely undernourished – that is as many as 161 million more than the previous year. And, nearly one third of the global population cannot afford a healthy diet. There is even a real risk of growing food insecurity in many so-called “advanced” countries.

So, as we get back on our feet after the COVID crisis, we need to rebuild in a way that is healthier, more sustainable, more equitable and fairer for all.

As we begin to undertake a transformation of the food system, we need to remind ourselves that such transitions are fundamentally about people. The principle must be to **prioritize social solidarity and rural economic growth over simply improving supply**

chain efficiency. And we must build greater trust that food systems work for people – not the other way around.

We have a tremendous opportunity to engage the nearly 1 billion producers and more than 7 billion consumers around the world as change agents in this transformation. To do so, demand-driven and inclusive principles need to be embedded in global, regional and country approaches.

The Food Systems Summit Dialogues that underpinned the recent UN Food System Summit demonstrated this need for both global and national action. More than 140 countries undertook a series of national dialogues in the lead-up to the summit. And more than 1600 independent dialogues were announced, resulting in National Pathways for Change in over 100 countries.

Whilst we know that people are central to food systems transformation, we must also acknowledge an inconvenient truth about our own role.

- As a species, we are using half of the habitable land on Earth to produce the food we consume every day.
- Up to one third of that land is degraded, threatening the long-term sustainability of our food system.
- Moreover, up to two thirds of biodiversity loss worldwide is attributed to food and land use activity.
- And more than two thirds of fresh water used in agriculture and food production and one third of greenhouse gases can be attributed to food and land use.

So there is no doubt that “agri-food” systems are a major part of the problem – but also, potentially, a huge part of the solution.

In many ways, the blueprint for how to do this already exists. It can be found in the Paris Accord and Sustainable Development Goals.

However, achieving these targets will require a “step change” in innovation, and an unprecedented degree of cooperation. Pursuing only narrowly defined projects, or specific thematic silos will not suffice.

At the World Economic Forum we seek to help public, private and civil society champions working across the full breadth of the food systems agenda:

- We aim to catalyse and build *integrated global platforms for action*.
- We aim to make economic and food systems *fairer for all people*, and *more sustainable for the planet*.
- And, we aim to *address the real sense of urgency* and scale that is so badly needed.

In all of these goals, we are grateful to work closely with the FAO and other UN agencies, as well as fellow international organizations, to unlock the drivers and levers for the changes needed.

In the next 15-20 minutes or so, I hope to inform, provoke and stimulate discussion among you through four distinct observations on the challenge of Food System Transformation.

The first observation is that there are structural risks that need to be addressed systemically, and an integrated multistakeholder response is required to transform food systems for the better.

Let me first highlight the global risks context for food security and food systems with data from the World Economic Forum's 2021 Global Risks Report.

Each year, we ask a network of about 1,000 senior risk experts to assess 30 key "global risks". They are grouped within 5 areas: economic, societal, environmental, technological and geopolitical. They are ranked by their perceived impact and likelihood of occurrence over the next 10 years.

The report shows something very interesting.

Despite what some may think, it seems that professional analysts in the finance, investment and business community *already* recognize the growing importance to our economies of societal and environmental risks like food security, extreme weather events, failure to adapt to climate change, water crises, biodiversity loss and ecosystem collapse.

Experts also realize how these risks will likely connect with one another and drive more immediate geopolitical flash point issues, like involuntary mass migration and interstate conflict.

So, we are facing a growing web of complex, challenging, underlying structural risks.

The interconnected nature of these risks, however, is proving particularly hard to address through traditional policy levers alone. This is made worse by the siloed nature of addressing individual risks, rather than systemic risk.

People are aware that our health and the well-being of the planet depend on the availability of, and access to, nutritious and more sustainable foods. But many are unfamiliar with the concept of "agri-food systems".

As individuals, we participate in these systems daily. And our choices and actions impact them in an interconnected way.

It is important, therefore, that we examine food systems as a whole, rather than as separate pieces of the puzzle. We need to break silo thinking. We need to value overall outcomes rather than issue-specific processes. Importantly, we need to better understand how we can work together, collaboratively, to address these complex, multifaceted challenges.

In that sense, I would like to applaud the UN for the vision of calling out systems thinking and of having successfully hosted the Food Systems Summit

My second observation is that adopting an integrated response to food system transformation will require building multistakeholder platforms that can be scaled both at the national and regional level, and along global value chains.

Given the complexity of the challenge as food and land use issues cut across those of health, environment and the economy, this is not surprising. Of course, there are already a large number of individual partnerships and alliances that address specific geographic or thematic issues within food systems transformation.

But the piecemeal progress to date must rapidly become a joined up global effort that encompasses the entire food system to meet the scale and urgency of the challenge.

The pandemic has shown us the power of unprecedented global action and coordination towards achieving a common goal.

Traditional partnerships, are often very effective in addressing specific issues. But, they do not have the capacity to deliver either the scale of change or to manage the degree of complexity that food systems transformation requires.

To build future food systems that are fit for purpose, we need to adopt a “platform for action” approach. Such an approach should enable stakeholders from various sectors and geographies to develop public-private collaborations that meet local needs, while collectively aligning and coming together to address global ones.

This approach fundamentally has three traits:

- First, its focus is on *platforms*, not on institutions, projects or pilots.
- Second, its energy goes towards *bolstering and aligning efforts*, rather than duplicating them or approaching them piecemeal or in silos.
- And third, it requires a scaled, collaborative, cross-sector, solution-orientated mindset from the outset.

At the World Economic Forum, a good example is the Mission Possible Platform.

This cross-sector alliance of climate leaders is focused on getting entire sectors to net zero by 2030. It consists of a community of CEOs from carbon-intensive industries. They, together with their financiers, customers, suppliers, and, regulators agree and act on the decisions required for decarbonizing their respective industries within this decade.

In the food arena, the Food Action Alliance is another good example.

This alliance is led by more than 35 partners from the public and private sector, civil society, farmer and consumer organizations and academia. It aligns various country and region-led initiatives on a global level. That approach allows each existing partnership or initiative to maintain their uniqueness, while harnessing the collective capacity of the platform as a whole.

Specifically, the Food Action Alliance gathers initiatives led by IFAD, World Food Programme and the FAO’s Hand in Hand Initiative. And it also includes initiatives the World Economic Forum helped to catalyse, such as Grow Asia, which itself is working with nearly 600 partner organizations, reaching over 2 million farmers. Together, the Food

Action Alliance has already engaged over 20 flagships globally that are adopting a comprehensive food system approach at scale.

Developing agricultural ecosystems by strengthening integrated value chains, from production to consumption, is often a good starting point for food systems transformation and wider economic growth. A crucial role lies with flagship initiatives, particularly in areas such as rice in West Africa. The ingredients to success are that (1) farmer best practices are adopted widely; (2) the use of best available technologies and science is made available affordably; and (3) access to finance and digital services to improve market access is enhanced. Moreover, such flagships support ambitious nutrition, climate smart and inclusion outcomes. Though complex to develop at scale, such flagship initiatives are critical for offering a blueprint for achieving more sustainable and equitable growth in regions such as Africa, a region that is key to the global food system.

Working in this way, we can make sure that hundreds of millions of people can benefit from better functioning, equitable food systems initiatives.

This is not a hypothetical number. At the World Economic Forum, we are actually working on a “One Hundred Million Farmers” initiative. It catalyses action to transition towards net-zero, nature-positive food systems by 2030. It sets out a shared global ambition, but also supports local solutions that incentivise farmers and empower consumers to place climate, nature and resilience at the core of the food economy.

Working at this scale truly drives global and system change. Once farmers change their production methods, companies can drive that as an operating principle through their supply chains. In their turn, several billion consumers are incentivized to choose healthier, nutritious, zero-waste and environmentally conscious food through a variety of inspiring, transparent and trusted approaches.

Think of such platforms as large-scale partnership accelerators. In this respect, the FAO is a very complimentary partner.

This leads to my third observation – that we need to better understand the role of the “true value of food”, of stakeholder capitalism, and of environmental, social and governance issues as levers of change.

Let us break this down in its three constituent parts.

First, as we engage in these systemic approaches, the true value of food comes into focus.

If we are to make better, more informed decisions on ensuring more equitable, resilient food systems, nourishing for all, then we need to better understand the true cost of food.

We need to understand how hidden factors, absent from the retail price, need to be assessed properly. Such costs include human health complications, biodiversity loss, environmental impact and the effects of the economy.

Second, we live in a world where the actions of any one stakeholder affect the lives and realities of many others.

Farmers, producers, fast-moving consumer good multinationals, retailers and consumers: all of them have a stake in our shared food system, but all of them also face externalities.

If we want to create and maintain a more sustainable food system, all of these actors need to embrace their stakeholder responsibility. That means looking beyond their short-term financial interests, and taking into account the longer term consequences of their actions. Producers and retailers too, are more than profit-generation units. They are part of society, and must contribute to it.

Already, investors see inaction on climate change as a key material risk and are increasingly challenging companies to take more action. And consumers and employees are already voting with their wallets and their feet. To survive and thrive in the future, it is important to stay ahead of this trend, because investors could be afraid of externalized liability risks.

Third and last, until recently, there was no comparable, transparent data to measure corporate resilience and progress on environmental, social and governance issues, or ESG. But that has recently changed.

Last year, the World Economic Forum's International Business Council, together with the big four accounting firms, launched the Stakeholder Capitalism Metrics. These identify 21 core ESG metrics for companies to report in their annual reports. The aim is to cut through the fragmented landscape of sustainability reporting and build momentum on the development of global sustainability standards.

Though climate change is critical, it is not the only environmental impact we need to measure. Sustainable value creation also depends on protecting fresh water, fertile land and ecosystems. A business cannot succeed in a society that fails. Likewise, of the three ESG elements, "social" now ranks high in importance for investors, as issues such as human rights dominate public concerns.

For the Forum, the need to be able to properly measure the true value of food also aligns with the broader work we have been doing on ESG.

My fourth observation is that innovation is a critical lever of change if we are to successfully transform food systems.

The pandemic has underscored the need to retool the entire food system. Actions taken to protect and restore food systems will also have to be smarter. This will require a significant focus on innovation that benefits everyone.

In defining innovation, it is critical to adopt a wider more holistic view – one that is inclusive of local and traditional knowledge. One that recognizes the importance of policy and institutional innovation, of multistakeholder partnership innovation, and of social innovation and social entrepreneurship.

At the same time, the Fourth Industrial Revolution, characterized by the fusion of technologies in the physical, digital and biological spheres, is driving disruptive technologies across many sectors.

That is an opportunity as well as a threat: it is an opportunity, as innovations may help us solve the wicked problems we are faced with in the food system. But it is also a threat, as

innovations do not inherently bring about positive change. They may also worsen outcomes.

It is up to us to shape the outcomes of the Fourth Industrial Revolution in the food space. We can shape them, and ensure they benefit all, rather than harm us.

But so far, agriculture and food systems have been slow to benefit from these developments. Our research prior to the pandemic revealed that, compared with the food sector, healthcare attracted 10 times the investment in innovation and created 10 times as many start-ups during the same period.

We identified that simply by focusing on 12 technologies, significant global benefits could be delivered in reduced water usage, greenhouse gas emissions and food waste. Whether that be in blockchain-enabled traceability, big data to support farmer electronic wallets, alternative proteins, or off-grid renewable energy.

The same report also highlighted that the individual technology is not on its own a silver bullet solution. In order to maximize potential impact, and to mitigate unintended consequences, vibrant innovation ecosystems need to be built, particularly at the country level.

- Such ecosystems should allow governments, companies, innovators, financiers and smallholder farmers to collaborate;
- They need to prioritize which technologies can and should most urgently be scaled;
- And they should define how policy and business model innovation can best be supported in a way that builds trust and bridges across silos.

As part of the Food Systems Summit, a number of countries and regions have actively supported the need for strengthening national innovation ecosystems through the establishment of Food Innovation Hubs.

- Viet Nam, for example, set out its strategy to become a leading green growth food innovation hub in Asia.
- The UAE has announced becoming a world leading hub in innovation-driven food security.
- Colombia and India have announced similar food hubs and are working with the World Economic Forum's Network of Fourth Industrial Revolution Centres to accelerate this work.
- And last year, the Dutch Prime Minister announced support for creating a Global Coordinating Secretariat for Food Innovation Hubs.

These countries lead the way, as they understand that unlocking innovation in general, and particularly in digital food systems, offers countries significant scope to build back stronger, more resilient, more informed, and more equitable systems for the future.

Data-driven food systems – empowered by digital connectivity – is of course not a new concept. However, the need to accelerate work in this field and bring significant resources to bear has never been more pressing.

Data from satellite and geospatial operators, ICT and telecommunications providers, e-commerce and logistics companies and finance providers could all be brought together, along with data from government, international organizations and civil society. This would accelerate food systems transformation while ensuring that the farmer and the consumer are at the centre of any solution design.

An example of this in practice emerged during the pandemic in Kenya. The government established a cross-ministry, cross-sector, data-driven, food security war room under the management of the Agricultural Transformation Office of Kenya.

This allowed digital tools to be deployed in real-time to collect data from multiple sources, including individual farmers. And, in turn, this informed the response to and recovery from COVID-19 and its impact on food supply, as well as to a series of simultaneous threats, including a disastrous plague of locusts and extreme weather-induced flooding.

This approach was built out further through the Innovation Lever for the Food Systems Summit, leading to the emergence of a significant digital food systems coalition. It highlighted the idea of “One Map” – that aims to unlock the power of food systems transformation through a global digital map.

Another initiative that emerged included the Digital Marketplace Playbook. This inclusive and sustainable framework enables all actors, from farmers to consumers, to build more efficient, climate-smart markets for healthy and nutritious food.

The digital marketplace builds on strong examples, such as Mercy Corps AgriFin, which now is reaching 8 million smallholder farmers across Kenya, Ethiopia and Nigeria. It does this by aligning a range of initiatives that use data to better understand the needs of farmers and strengthen market offerings through trusted digital channels at scale.

Similar initiatives include Forum-supported programmes such as the Edison Alliance and 2030 Vision. Both of these aim to mobilize the ICT and other critical sectors to create a global movement that prioritizes digital inclusion and the use of digital technologies as fundamental to the achievement of the Sustainable Development Goals.

They can also be aligned to programmes such as the FAO Digital Villages Initiative to fast track the scope for increased prosperity in thousands of villages worldwide by smart access and use of technology.

The One Hundred Million Farmers platform is also promoting innovative solutions. It offers the scope to apply satellite and digital technologies to potentially engage tens of millions of farmers in co-creating a new reward and payment mechanism for those who adopt net-zero, nature-positive practices. This could lead to the creation of a whole new asset class in soil and regenerative farming.

As with all innovative solutions, however, it is vital to ensure that we put people at the centre of the design equation. It is also vital that this people-centric approach to innovation is supported by the building of robust innovation ecosystems. And that these are developed through smart policy, investment and capacity building agendas, and strengthened by creative platform building that enable collective action at scale.

In conclusion:

When questions abound on the current world order and the risks facing national governments and international institutions, such as the World Economic Forum, it is our deep belief that the world needs examples of a new mobilization of global stewardship for our planet and the food system that we all rely on so heavily for our collective and shared prosperity.

We are facing unprecedented risks in the future, many of which are already causing disruptions today. In response, we need global public-private cooperation. We need to embrace and master the innovations of the Fourth Industrial Revolution. And we need to adopt a stakeholder approach to all of our activities.

On behalf of the World Economic Forum, I want to leave this talk with an open offer of support and collaboration towards the work of building inclusive growth and levers of change in support of food systems transformation.

With our friends and partners across business, civil society and the international community, we are privileged to be building the mobilization of an action agenda on food systems.

We will use our respective platforms for action as launchpads for collective engagement. We will also be honoured to stand alongside our colleagues and friends from the FAO as we look towards unlocking the outcomes that have emerged out of the Food Systems Summit, and as we work jointly to meet the Sustainable Development Goals.

Once again, thank you for inviting me to contribute to this important dialogue.