Introduction
The 2030 Agenda is rooted in the idea that human development and wellbeing cannot be achieved without simultaneously safeguarding and investing in nature and managing disaster risk in a systemic manner—otherwise development gains will be short lived and unequally distributed. Biodiversity loss, land and forest degradation, climate change, and disasters are threatening progress toward sustainable development. Actions to advance economic and social development need to address these threats and build resilience including through nature-based solutions, sustainable consumption and production practices and accounting for the true value of nature.

The past decade—in particular the COVID-19 crisis—has revealed the systemic nature of risk and the cascading impact of disasters across all three dimensions of sustainable development. The natural environment is humanity’s first line of defense against many hazards, and nature-based solutions must be scaled up to manage disaster risks, build resilience and leave no one behind. These issues are addressed directly in SDGs 12, 13, 14, and 15, but they are foundational to the entire 2030 Agenda, including poverty eradication, health, food security and inclusive economic growth and sustainable livelihoods. The current session will highlight opportunities and innovations that can build resilience and manage risk while securing livelihoods and safeguarding the planet.

Guiding questions

1. **Systems transformation**
   What are the fundamental systems transformations needed to halt nature degradation, reverse loss and manage risk, while eradicating poverty, ensuring food security for a growing population, securing livelihoods and promoting resilience?

The year 2020 marks a milestone in the implementation of the 2030 Agenda for Sustainable Development and its SDGs. It is in fact after five years from the Agenda adoption that we are all making a first assessment of the Agenda implementation and the provisional achievement that this may have achieved. The latest reports including the Status of Food Security 2019, as well as the World Development Report and IPCC report are all stating that the world is in need of a direction change when it comes to policies and actions for global development. Before COVID outbreak invested us, “protecting the Planet while ensuring Food Security” was priority number one in the international community. Now that COVID19 is here and apparently, it is meant to stay, it is in our duties to resume the work of “protecting the Planet while ensuring Food Security” in times of COVID19. Meanwhile we have realized that Food Systems are very complex and no matter the angle of intervention, the number of goals we have to achieve remains very high. Looking at the literature on Food Systems, it comprises not only the “Farm to Fork” approach, but the whole food ecosystems: from inputs management, to production patterns, food losses and waste, policy making at all levels has to guarantee enough food for an increasing world population, coping with the effects of climate change, resource depletion, and malnutrition, among the others. While components of the food value chain have traditionally been approached in silos - trying to improve each one with the assumption that this would also improve as well and as a direct
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Consequence the efficiency of the system as a whole -global challenges show that a radical shift in the overall food systems approach requires as the key ingredient, a coordinated, mutually beneficial and trustworthy engagement of the different stakeholders in different sectors of the whole food value chain at multiple levels.

In a nutshell, a paradigm shift is needed to achieve global food security while addressing climate change and build resilience. This includes: 1) to look at the systems as a complex one and not in silos. Farmers for instance play a major role in the process to shape Sustainable Food Systems, as they stand at the heart of any process related to the system: farmers are the ones who feed the world with healthy and nutritious food, and deliver at the same time multiple economic, social and environmental benefits to the society as a whole. At the same time farming is a business and farming families all over the world have to live from what they make, what they believe and grow, either directly or indirectly. For a sustainable shape of the global Food Systems an economical benefit for the farming families is indispensable. 2) Convergence between public and private investments should be promoted. Building on the multidimensional nature of farmers’ role in the whole food value chain, one solution that stands out is the creation of "new business models" that are able to link farmers, business, retailers and consumers, and which can therefore be true catalysts for a food system approach which is able to involve all the actors. Value chain contracts represent an example of the above mentioned "new business models" that are able to put farmers at the same level of industry, enhancing at the same time their bargaining power, promoting fair trading practices and prices. 3) Policy makers at all level should promote convergence in the rules and regulations they propose. In such an interconnected world, trade policies as well as production and consumption patterns should be directed by the principle of “healthy people in a healthy planet”, able to prevent and manage risks that may be brought by the climate change or a pandemic outbreak.

2. Specific actions to drive transformation

Please describe 2-3 specific, promising actions at different levels that can drive these systems transformations. These actions could relate for instance to scaling up the use of nature-based solutions, sustainable consumption and production, or other approaches. How have these actions helped (or how could they help) break down siloes, support the systemic management of risk, and trigger positive changes in society? How can co-benefits between actions be maximized and the risk in trade-offs stemming from these actions (i.e. negative impacts on other aspects of the 2030 Agenda) managed?

In 2018, the Climakers Initiative was conceived to bring together farmers of the world and all the relevant stakeholders of the food system with the overall objective to promote a completely reverted paradigm applying an authentic bottom up principle, where farmers propose a global political process on climate change, through a renewed agenda that is farmers-driven, science-based and result-oriented. The main objective of the Climakers is to influence the conception and adoption of the Nationally Determined Contributions (NDCs) of the Paris Agreement, calling on Governments to base the agricultural compartment's strategies, in their NDCs, from the best practices that farmers are already implementing to mitigate and adapt to the climate change.

This year, the outbreak of Covid-19 has profoundly modified the environment in which The Climakers are meant to deploy their action. The pandemic outbreak has coupled with climate challenges, affecting disruptively the agricultural sector worldwide, with farmers asked to keep on working to ensure food security and a burden on the entire food value chain to function properly while facing operational obstacles. In this framework, the Climakers will take into consideration this new challenge within their set of activities, outlining how farmers and all the partners in the value chain are coming up with solutions to tackle this situation, demonstrating flexibility and resilience. The Climakers is carried out by an Alliance which is composed by: Farmers’ Organisations, Private sector, Civil Society Organisations, scientific bodies, media partners.
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Through the collection of best practices from farmers, the Climakers initiative can already show effective solutions that were able to reduce emissions of agriculture in the atmosphere. Practical examples (v. https://www.theclimakers.org/wp/wp-content/uploads/2019/12/The-Climakers-Stories-from-the-Field-Volume-1.pdf). Some of them are described below:

- From 1981-2011, agricultural best management practices helped reduce Canada’s annual biological farm emissions from 1.1 million tonnes to 11 million tonnes, effectively making agriculture a carbon sink. Canada’s crop sector alone has sequestered the equivalent of 61.4 million tonnes of carbon since 1986 – for a total value of just under $1 billion when priced at $15 per tonne under Canada’s federal carbon pricing regime. Furthermore, agriculture supports landscape scale adaptation through soil conservation, air quality and localized cooling during heat events.
- Sustainable pig farming in Denmark shows that emissions could be reduced by about 22% by removing manure more frequently from pigsties into manure tanks.
- A farm in Ireland has reduced emissions form pig production by 15%.
- A farm in Finland have collected approximately 1 250* tonnes of CO2 stored in wood from the forest.
- Farmers in Ghana have reduced their GHG emissions by reducing the waste generated in the production and sale process of coconuts.
- Cocoa farmers in Indonesia are reducing their emissions, especially nitrous oxide, by an optimal application of fertilizers to plants.

The Climakers generates economic and social benefits through its activities:

- The Climakers brings together farmers of the world and relevant stakeholders in the value chain in order to come up with practical and pragmatic solutions to climate change. The initiative provides a platform for an effective peer – to – peer exchange among farmers and a strong relationship with other relevant stakeholders of the food vale chain, creating a framework for a truly fair cooperation among all the actors.
- Solutions already implemented by farmers to combat climate change are collected and validated scientifically with the aim to assess the climate – smartness of the solutions and recommendation are made in order to improve and scale up them, creating the enabling framework to attract investments.

The Climakers initiative was promoted in last year report on Stakeholders E-consultation on the Sustainable Development Goals (SDGs) under review at the 2019 High Level Political Forum on Sustainable Development (HLPF) https://sustainabledevelopment.un.org/hlpf/2019/econsultation.

3. Means of implementation and the global partnership for development (SDG 17):

Achieving the 2030 Agenda relies on a combination of means of implementation to catalyse action and engagement, harness synergies and reduce trade-offs. Please discuss the means of implementation, including finance, partnerships, and capacity building, needed to make the necessary transformations. How can science, technology and innovation (STI), including social innovation and local and indigenous knowledge, be mobilized to advance these transformations?

Innovation is key to unlock the potential of agriculture as the heart of the functioning and transformation of food systems: innovation is a system that consists of a wide range of public and private actors and includes the rules and instruments by which these different stakeholders interact and relate with one another in social, political, economic and institutional settings. It can concern products, processes, markets, institutions; it can be technological, social, and organizational. This means that innovation processes must be directed not only to what
happens at the production level but involve all the stages of food systems all the components of the food chain. In fact, while it is evident that farmers have a direct impact on the land they cultivate and the food they produce, all other actors of the value chain have a strong influence too: policy makers, inputs providers, investors and financing institutions, processors, retailers and consumers affect food supply and farmers’ work with their choices, while power balances that underlie within all these actors dictate the rules of production.

Innovation in agriculture, starting from research, can only be producers-driven, which includes indigenous producers, based on producers’ needs and knowledge, for their benefit and the benefit of the natural ecosystem they work in. Research topics’ identification, conception, design, implementation, dissemination and adoption should come from the involvement of local, sub-national, national, sub-regional, regional/continental and global producers’ organizations, in order to be based on their real needs. If the strategy delivers on involving farmers and indigenous peoples, this could lead to the effective adoption of innovations by the communities. This approach will foster the effective transformation of food systems through applying innovative techniques to the nature-based traditional knowledge of rural communities, including indigenous ones.

Producers, consumers, policy makers and nutritionists should cooperate to achieve healthy diets through innovative policy models that take into account that agriculture and farmers play an essential and central role in ensuring the provision of healthy food for all. The interconnection (even through technologies) among all sectors should be taken into consideration as each and every segment (primary production, consumption, policy and science) have an impact on each other.

Banking and financial institutions must be key partners for the development of services that support farmers in innovation processes. However, they often lack a clear understanding of the agricultural business: Agriculture is a unique sector and should be treated as such when strategizing on financing agricultural activities. The risk factors inherent in agriculture often inhibit financial institutions from lending. These include risks linked to natural events (such as droughts, floods and pests) and farmers’ ability to provide collateral (the offer of financial products may only be available to large-scale farmers with sound track records, and therefore may not be suitable for all types of farmers) and the volatility of prices. Innovating the managements of risks and understanding the opportunities of the small-scale farmers is key for the development of any successful financial product directed to farming communities. Parameters and criteria for producers’ access to credit and insurance should be customized on the farming business with specific standards that may differ from the criteria applied to the other sectors. Thus, it is important to highlight the necessity for farmers, individually or through their representations, to be involved in the strategic planning of investments and the definition of suitable and flexible evaluation criteria. Policy support is needed to incentivize financial institutions in providing loans to farmers with a fair use of collaterals.

Insurance schemes play an important role, most of all in relation to climate change and natural disasters that frequently occur at farm level. It is vital to raise awareness among farmers of the importance of mitigating risks through insurances scheme, while incentivizing insurances company in providing insurances to farmers. The use of technologies could help engage both farmers and insurers, giving precise and up to date information and mapping (i.e weather, crop and soil changes), helping farmers decide where to invest and insurer to know more precisely the risks linked to a specific insurance scheme.
4. **Covid-19 crisis**

What does the Covid-19 crisis reveal about the human-nature relationship and systemic risk creation? How can nature-based solutions contribute to a post-COVID-19 economic and social recovery that is more sustainable, equitable and resilient? What immediate and medium-term steps are needed to ensure that the post-COVID-19 economic and social recovery is sustainable, equitable and resilient. How can we redirect financial flows and direct recovery efforts to create better outcomes for people, prosperity and planet?

The pandemic outbreak of coronavirus has an impact on the entire food supply chain, confirming in the most terrible way that we are all part of a food system that is interconnected and fragile and that solutions must be developed together. Farming has been recognized almost worldwide as an essential activity and farmers were asked to keep on working, even harder, to cope up with this new challenge. Nevertheless, each component of the food supply chain has an impact on farming activities, so each bottle neck occurring somewhere on the food supply chain, is having an impact on farmers.

Countries lock-down and borders’ closure are strongly impacting farmers’ access to markets, but also to inputs and labor force, with the double effect of lowering the income of labor workers as well.

The World Farmers’ Organisation, WFO, has created a COVID19 Information Hub, [https://www.wfo-oma.org/covid-19-agri-information-hub/](https://www.wfo-oma.org/covid-19-agri-information-hub/), where farmers world are sharing the effects of the pandemic in their own countries up to the farms. We found out that a number of challenges have been addressed by the farmers already, but implementing measure that are somehow lowering the impact of COVID19 in the short run but need investments for scaling up, in the long run. Because of all the challenges they are facing, like other economic actors, farmers are bearing the society costs of this pandemic on their own shoulders. This is not sustainable in many cases, so farmers are having big losses in their income, which also affects the economic conditions of their families and communities. Access to low-rate credit should be made available to the farmers with risk assessment criteria that reflect the farming condition reality and customized according to the local conditions. Banks and insurances should be made able to release real time funding to those farmers, who have to invest in their farms to improve standards to address COVID19 challenges and reconver the production patterns.

If it is true that it is necessary to bring food to the table of hundreds of millions of people in the most vulnerable areas of the world, it is more than ever important that the international organizations, and financial institutions partner up with farmers’ organizations across the globe by making available soft financing, both to cover for losses incurred under lockdown and to restructure their operations, to ensure that the food chains keep running and that we have a chance to be the foundation for economic reparation. Without such a special financing mechanism many farmers, who can and should be part of the solution, will be doomed to be added to the problem.