



联合国
粮食及
农业组织

Food and Agriculture
Organization of the
United Nations

Organisation des Nations
Unies pour l'alimentation
et l'agriculture

Продовольственная и
сельскохозяйственная организация
Объединенных Наций

Organización de las
Naciones Unidas para la
Alimentación y la Agricultura

منظمة
الأغذية والزراعة
للأمم المتحدة

E

FAO REGIONAL CONFERENCE FOR LATIN AMERICA AND THE CARIBBEAN

Thirty-sixth Session

19-21 October 2020¹

Sustainable and climate resilient agriculture

Executive Summary²

In recent decades, agriculture in Latin America and the Caribbean (LAC) has been characterized by strong growth. The region has become one of the world's leading food suppliers, contributing 14 percent of production and 23 percent of agricultural and fisheries exports.

This strong growth has led to significant environmental costs, including water scarcity and pollution, soil deterioration, loss of biodiversity, decreased fish stocks and forest cover, as well as high emissions of greenhouse gases (GHG) responsible for climate change.

Today, LAC is facing the great challenge of transforming its agriculture and food systems to achieve more sustainable and resilient production. This will also contribute to the fight against all forms of malnutrition and to reducing poverty among the most vulnerable rural and coastal communities of the region.

This transformation can be a source of multiple opportunities, since it will require the introduction and scaling-up of technological innovations, greater investment in human capital and research, better policies and regulations, and greater opportunities for progress in gender equality.

Recommendations for the Regional Conference

The Regional Conference is invited to:

- Reaffirm that to achieve Sustainable Development Goal (SDG) 2 “zero hunger”, SDG 6 “water and sanitation”, SDG 12 “responsible production and consumption”, SDG 13 “climate action”, SDG 14 “life below water” and SDG 15 “life of terrestrial ecosystems” of

¹ Rescheduled from 27-29 April 2020, Managua, Nicaragua.

² This document focuses on one of FAO's three priorities in the region, and should be considered in the context of the other two priorities addressed in the documents LARC/20/2 “Transforming food systems for healthy diets for all” and LARC/20/3 “Hand-in-Hand towards prosperous and inclusive rural societies”.

the 2030 Agenda for Sustainable Development³, it is essential and urgent to transform agriculture on a large scale towards more sustainable, efficient and resilient systems low in emissions.

- Considering the commitments made by the countries in the framework of the 2030 Agenda, including different environmental agreements⁴, the Sendai Framework for Disaster Risk Reduction and, in particular, the Paris Agreement and the importance of agriculture in the Nationally Determined Contributions (NDCs), there is a clear need to move forward in the transformation of agriculture with an integrated and multidisciplinary vision, while generating an enabling environment for this purpose.
- Request FAO to provide support for:
 - (a) Implementing the relevant NDCs for agriculture and the rural sector, as well as developing transformation strategies adapted to the contexts of the different countries and territories, in order to achieve intersectoral, multi-actor and multilevel agreements and solutions that create synergies between different sectors and actors.
 - (b) Strengthening governance in the development of public policies, regulations and institutional frameworks to promote: i) adequate management and territorial planning, and ii) disaster risk reduction .
 - (c) Promoting the implementation and scaling-up of sustainable, resilient and low-emissions innovations and practices, taking advantage of the potential of new technologies and innovative models that generate jobs and entrepreneurship opportunities, while promoting the inclusion of small businesses, vulnerable populations and women's empowerment to help achieve gender equality.
 - (d) Fostering the development and scaling-up of climate services and early warning mechanisms aimed at user action, enabling their effective use and strengthening self-adaptive capacities.
 - (e) Developing mechanisms to promote and increase investment, facilitating access to global climate and environmental financing and linking existing national investment and social protection mechanisms to the development of sustainable and resilient agriculture and food systems.
 - (f) Strengthening the conservation, rehabilitation and sustainable use of biodiversity in agriculture, and promoting the implementation of the Action Plan of the High-Level Regional Dialogue on the mainstreaming of biodiversity in the agricultural, forestry and fisheries sectors (DRANIBA).⁵
 - (g) Implementing sustainable and resilient aquaculture and forestry systems, while combating illegal, unreported and unregulated fishing, as well as illegal logging.
 - (h) Promoting collaboration and exchange of experiences between countries through South-South and Triangular Cooperation, the development of joint strategies to face common challenges, and the management of shared resources.

³ Sustainable Development Goals (SDGs) 2015. For more information see: <https://www.un.org/sustainabledevelopment/sustainable-development-goals/>

⁴ Set out in paragraph 8 of this document.

⁵ Report of the High-Level Regional Dialogue on the mainstreaming of biodiversity in the agricultural, forestry and fisheries sectors. <http://www.fao.org/3/ca4924en/CA4924EN.pdf>

Please send any questions about this document to:

Regional Conference Secretariat
RLC-Conferencia@fao.org

I. Context and challenges

1. The region of Latin America and the Caribbean (LAC) has an important natural heritage that makes it a key contributor to global environmental balances and dynamics. With only 16 percent of the planet's land area and 9 percent of its population, the region contains 50 percent of the world's biodiversity⁶, 23.4 percent of total forest cover⁷, 31 percent of fresh water and 12 percent of the land currently under cultivation.⁸ This natural wealth provides the basis for abundant and diverse agriculture and food production.
2. The agriculture sector in LAC is important for employment and economic growth in the countries of the region, while at the same time being a key contributor to global food security and nutrition (FSN). In addition to providing most of the food for internal consumption, the region plays a crucial role globally, contributing 14 percent of food production and 23 percent of agricultural and fisheries exports.⁹ LAC produces enough food to meet the energy needs of about 821 million people, 169 million more than the inhabitants of the region. However, there are marked regional differences within LAC. At one end is the Southern Cone with an agricultural trade surplus and, at the other, the Caribbean countries, which import up to 80 percent of their food.¹⁰
3. The natural heritage of LAC has been impaired by the development of activities linked to agriculture. The sector uses 73 percent of the total fresh water in the region each year. It is estimated that there are almost 200 million hectares of degraded land in the region and that 50 percent of agricultural soils suffer from some degree of erosion. Meanwhile, the forest area has decreased from 51.3 percent in 1990 to 46.4 percent in 2015, having an important impact on biodiversity loss.¹¹ Additionally, more than half of the fisheries in the region are overexploited - 55 percent in the Caribbean, 58 percent in the Pacific Ocean of the Southern Cone and 50 percent in the Atlantic Ocean of the Southern Cone - affecting the volume of catches, with a contraction of more than 50 percent in 2017 compared to the historical maximum in 1994.¹² The deterioration of the region's natural resources not only affects the global environmental balance, but also the productive base on which agriculture and other sectors, vital for development and social well-being, depend.
4. Agriculture is strongly affected by the impacts of climate change and is also an important source of greenhouse gases. LAC contributes 8.3 percent of global CO₂-eq emissions.¹³ Of that percentage, agriculture, forestry and land use change account for 42 percent.¹⁴ The increase in intensity and frequency of extreme weather events due to climate change has become one of the main challenges facing regional agriculture. The Long-term Global Climate Risk Index¹⁵ identifies Dominica (10), Haiti (4), Honduras (2), and Nicaragua (6) on the list of the ten most vulnerable countries. The case of the Small Island Developing States (SIDS) of the Caribbean is particularly serious, because their geographical and economic size limits their ability to withstand losses and prevents recovery without external assistance.¹⁶ Between 2006 and 2016, 18 percent of the total population of SIDS in the Caribbean were affected by climate-related disasters, with agricultural damage and losses reaching 19 percent of the aggregate agricultural value. These impacts were substantially greater than in non-SIDS countries, where the proportion of people affected and agricultural losses was below 10 percent.¹⁷
5. Considering the effects of climate change on temperature and precipitation regimes, it is estimated that in areas of the Southern Cone, rainfed agricultural production will be reduced due to the

⁶ ECLAC, FAO, IICA. 2019. <http://repositorio.iica.int/bitstream/11324/8214/1/BVE19040295e.pdf>

⁷ Forestry Commission for Latin America and the Caribbean, 2017.

⁸ FAO. 2015 *Status of the World's Soil Resources*, <http://www.fao.org/3/i5199e/i5199E.pdf>

⁹ OECD/FAO. 2019. *Agricultural Outlook 2019-2028* <http://www.fao.org/3/ca4076en/CA4076EN.pdf>

¹⁰ FAO. 2015. *State of Food Insecurity in the CARICOM Caribbean*. <http://www.fao.org/3/a-i5131e.pdf>

¹¹ Durango, S. *et al.* 2019. <http://www.fao.org/3/ca5507es/ca5507es.pdf>

¹² Flores Nava, A. 2019. <http://www.fao.org/3/ca5473es/ca5473es.pdf>

¹³ ECLAC. 2018. https://repositorio.cepal.org/bitstream/handle/11362/42228/4/S1701215A_es.pdf

¹⁴ Ibid.

¹⁵ Germanwatch. 2019.

¹⁶ In 2015, due to the Tropical Storm Erika, Dominica suffered losses and damages equivalent to 90 percent of its GDP (World Bank, 2016).

¹⁷ FAO. 2017. *The impact of disasters and crises on agriculture and food security*.

increase in seasonal water stress.¹⁸ In Central America, a decrease in the yield of crops such as corn, beans and rice of up to 35, 43 and 50 percent respectively, is expected towards the end of this century.¹⁹ Lower yields from fisheries and aquaculture production are also expected, along with impacts on the patterns of pests, diseases and the ability of ecosystems to respond to adverse climatic events. In the case of SIDS, in the Caribbean and inland coastal areas, the consequences of rising sea levels, saline intrusion, ocean acidification and increased coral bleaching should be addressed. Climate change disproportionately affects people and farming communities living in conditions of poverty and vulnerability. Their ability to recover after adverse events is low, as well as their chances of acting preventively to reduce damage and loss, and adapt their livelihoods.

6. By 2050 the world population is expected to increase to 9.8 billion people, with an increase in global food demand of between 60 and 70 percent.²⁰ By 2028, LAC is expected to contribute more than 25 percent of world exports of agricultural and fisheries products.²¹

7. To ensure food security and nutrition in the face of growing demand for food, increased competition for natural resources and the climate crisis, it is urgent to rethink agriculture and identify the enormous opportunities for environmental, economic and social synergies that *green* and *blue* growth models can provide. In this regard, the transformation of agriculture in LAC should:

- Maintain and even expand the role of the agriculture sector as a driver of regional economic development, based on more resilient production in the face of climate change, including the efficient use and management of natural resources and fully developing the region's potential as a provider of *green* and *blue* foods.²²
- Conserve and restore the extraordinary natural heritage of the region to continue contributing to global environmental balances and dynamics, and to preserve the region's productive base and natural heritage.
- Encourage greater inclusion of rural territories, preserving livelihoods and strengthening family farming.
- Promote a new generation of food and nutrition policies that address malnutrition in all its forms, through an approach to food systems that offers sustainable and varied foods that are healthier and more nutritious.

8. Countries in LAC are implementing measures to meet this challenge. They are signatories to the 2030 Agenda, the United Nations Framework Convention on Climate Change (UNFCCC), the Paris Agreement, the Sendai Framework for Disaster Risk Reduction, the Convention on Biological Diversity (CBD), the United Nations Convention to Combat Desertification (UNCCD) and conventions on persistent chemicals (Rotterdam and Stockholm). Regarding the NDCs, 94 percent include adaptation activities related to agriculture; 77 percent activities related to mitigation; 70 percent address the management, conservation and efficiency of water use; and 68 percent of the countries of Central and South America are committed to the management of ecosystems and biodiversity. In addition, countries are beginning to transform their public policies, as in the case of Colombia's 2018 Green Growth Policy²³; Uruguay's agroecological production law of 2019²⁴; and the Climate-Adapted Sustainable Agriculture Strategy, approved in 2017 by the members of the Central American Integration System (SICA in Spanish) and the Dominican Republic.

9. The transformation implies changes in agriculture and food systems with three main objectives: 1) *sustainable land and marine production systems* through a reduction of their environmental footprint and greater integration with biodiversity and ecosystems; 2) *farmers, communities and ecosystems that are more resilient to climate change*; and 3) *an enabling framework adapted to the new challenges*.

¹⁸ Jarvis et al. 2019. <http://www.fao.org/3/ca5042en/ca5042en.pdf>

¹⁹ ECLAC. 2013. *Potential impacts of climate change on basic grains in Central America*.

²⁰ *Compared with production in 2013* (FAO, 2017).

²¹ OECD/FAO. 2019. *Agricultural Outlook 2019-2028*. <http://www.fao.org/3/ca4076en/CA4076EN.pdf>

²² Foods from productive chains based on a model of *green* and *blue* growth.

²³ National Council of Economic and Social Policy (CONPES) document 3934, 2018.

²⁴ Law No. 19,717, January 23, 2019: *National Plan for the Promotion of Agroecological Production*.

II. Three objectives for the environmental and climate transformation of agriculture

2.1. Sustainable land and marine production systems

10. The safeguard of ecosystem services is essential to increase production, preserve livelihoods, diversify opportunities for sustainable development, improve the inclusion and well-being of the rural population, and reduce socio-environmental conflicts. For this reason, greater efficiency in the use and management of natural resources, and better integration between production, biodiversity and ecosystems should be encouraged. These objectives should be addressed in an integrated manner, incorporating approaches to the sustainable management of natural resources at the national and territorial levels.

(a) Improve soil health and restore land

11. Soils are a critical resource for food production, which are subject to multiple degradation processes that decrease their quality and productive capacity, negatively impacting the livelihoods of producers. Within the framework of the UNCCD, most of the countries in the region have developed action plans to achieve neutrality in land degradation. In 2018²⁵, 22 countries set specific goals in this regard. Considering the severe incidence of degraded lands and ecosystems in LAC, a large-scale restoration should be proposed within the framework of the *United Nations Decade on Ecosystems Restoration (2021-2030)*.²⁶

(b) Promote water conservation, efficient water use and water scarcity management

12. The importance of the availability and quality of water for agricultural production is undeniable. The temporal and spatial distribution of rainfall and water resources, in quantity and quality, as well as the growing demand for water for diverse uses and the effects of climate change, mean that conservation is urgently required. For more sustainable and efficient water management, it is necessary to extend the use of technical and technological solutions, such as soil conservation practices, technified irrigation systems, rainwater collection and storage systems, and the treatment and reuse of wastewater. This development must be accompanied by better governance of water resources to ensure adequate distribution and conservation, thereby preventing conflicts over access to water.

(c) Integrate biodiversity into agricultural production and protect ecosystems

13. Biodiversity provides essential ecosystem services for agricultural production in the region, such as the maintenance of healthy soils, the provision of water, pollination, protection against adverse climatic events, pest control and the provision of habitats for wildlife, including fish and other species. The integral management of natural resources at the territorial, landscape and watershed level is essential to preserve the continuity of these services. At the level of agricultural production, conservation and organic, integrated, regenerative and agroecological production approaches should be promoted, among others. In addition, the region has rich agrobiodiversity in its ancestral and traditional agri-food systems, including those of indigenous peoples. This natural heritage can provide an important contribution to achieving sustainable and resilient agriculture, which could serve as the basis for new development and growth strategies.

(d) Sustainable forest management

14. Forests provide essential goods and services for life and the conservation of biodiversity, and provide sustenance to the communities that inhabit them. It is estimated that indigenous peoples, Afro-descendants and other traditional communities legally control approximately 40 percent of the forest

²⁵ <http://www.fao.org/in-action/agronoticias/detail/es/c/1099638/>

²⁶ Co-led by FAO and UN Environment.

area in the region.²⁷ The expansion of the agricultural and livestock frontier continues to be the main source of deforestation, exacerbated by fires, especially in South America and Central America, which affects about 35 million hectares annually.²⁸ Forest management should be based on conservation and sustainable forest management strategies through the development of policies, standards and capacities to reduce illegal logging, promote co-management, community forestry, forest concessions, fire risk management and socio-cultural appreciation of forests as providers of environmental services.

(e) Reduce GHG emissions

15. In order for the agricultural sector to meet the GHG reduction objectives of the Paris Agreement, actions in various areas are necessary, including:

- **Reducing emissions from deforestation and forest degradation (REDD +).** The different actions of restoration and forest management, as well as the development of capacities of the National Forest Monitoring Systems and associated procedures of measurement, reporting and verification (MRV) of emissions, supported by FAO within the framework of the REDD + initiative, have proven effective in the net mitigation of GHG emissions, in the implementation of NDCs and in increasing access to financial resources.
- **Low emission livestock production.** Livestock represents the agricultural activity with the highest GHG emissions per calorie produced. It is possible to reduce emissions from this activity by up to 30 percent²⁹ through improvements in the management of livestock — animal health and genetics — pastures, and waste and scrap for biomass generation and nutrient recovery.³⁰
- **Recarbonization of soils.** This is one of the most cost-efficient strategies for climate change mitigation.³¹ It requires the strengthening of the capacities of countries to map, monitor and verify the organic carbon in the soil, as well as the promotion of good soil management practices and conditions to enable the scaling-up of these practices.
- **Reduction of food losses and waste.** In LAC, 12 percent of food is estimated to be lost from harvest to distribution, meaning economic losses of approximately USD 150 billion per year, and the generation of emissions equivalent to 16 percent of the global carbon footprint.³² Reducing food losses and waste improves efficiency in the use of resources. It is essential for a transformation of the food system to include innovation, legislation and initiatives that drive changes at each stage of the production chain and in patterns of consumption.

(f) Promoting Blue Growth

16. Marine, coastal and continental ecosystems can be a driver of blue growth and an important contributor to FNS. Protein from fish and other seafood products (including algae) has a positive impact on human health and low GHG emissions.³³ The fishing and aquaculture industry is expanding rapidly and it is necessary to ensure that this is done in a sustainable manner. In this regard, FAO proposes:

²⁷ *Rights and Resources Initiative* 2014, <https://rightsandresources.org/en/publication/view/what-future-for-reform/>

²⁸ Data from the period 2003-2012. Van Lierop *et al.* 2015. *Global forest area disturbance from fire, insect pests, diseases and severe weather events. Forest Ecology and Management*, 352.

²⁹ FAO. 2013. *Tackling climate change through livestock*.

³⁰ Gerber, P.J. *et al.* 2013. Enfrentando el cambio climático a través de la ganadería. <http://www.fao.org/3/a-i3437s.pdf>.

³¹ IPCC. 2019. Special report on climate change and land.

³² FAO. 2019. SOFA 2019. <http://www.fao.org/3/ca6122es/ca6122es.pdf>

³³ Flores Nava, A. 2019. <http://www.fao.org/3/ca5473es/ca5473es.pdf>

- Strengthening the position of the countries and the region to deal with illegal, unreported and unregulated (IUU) fishing, with the adoption and implementation of the Agreement on Port State Measures Agreement (PSMA)³⁴ and related international instruments.
- Improving national systems for evaluation and monitoring of fisheries resources.
- Strengthening management systems and sustainable management of fisheries and aquaculture, adopting the provisions of the Code of Conduct for Responsible Fisheries³⁵ and related instruments.
- Strengthening the technical and organizational capacities of micro and small business aquaculture producers to ensure their inclusion in sustainable and resilient value chains.

2.2. Farmers, communities and ecosystems that are more resilient to climate change

17. Resilience implies the ability of all actors to anticipate climate risks and threats, reducing the impact of adverse events, both of an extreme nature and of low intensity and high frequency, adapting and transforming long-term development pathways. Strategies and policies for disaster risk management (DRM) and adaptation to climate change must be tackled in a complementary and integrated manner, in order to manage climate risk and reduce its impacts in the short and long term. Actions to increase resilience also require a gender and intercultural approach to be effective. To advance in this area it is necessary to:

(a) Invest in disaster prevention to reduce the cost in agriculture

18. The increase in the frequency and intensity of disasters due to climate change has meant an increase in public spending on response and rehabilitation, which has become unsustainable for many countries. However, every dollar invested in early action to prevent and mitigate impacts in the face of an adverse climate forecast in the agricultural sector generates an estimated return of between USD 2.50 and USD 7.10 in losses and damages avoided and added benefits. It is essential to develop public policies, institutional capacities and coordination mechanisms for DRM and climate change across the institutional framework related to agriculture and natural resources. In particular, disaster risk analysis should be incorporated into public investment in agriculture and public and private financial mechanisms created to shield investment from adverse events associated with disasters and climate, and build resilience that promotes the adaptation of small-scale farmers.

(b) Monitor risk and activate early warning systems

19. Clear and documented information, based on better systems of damage and loss assessment, characterization and monitoring of agroclimatic risk, is a key element for informed decision-making. This allows countries to act in an effective and timely manner, in addition to helping guide investment in strategic areas. The development of early warning systems and climate services for agriculture is a crucial area that needs to be strengthened in LAC, improving territorial contextualization and the access of small-scale producers to such information so they can act in a timely manner and increase their adaptive capacity.

(c) Promote adaptation to climate change by scaling up resilient production practices

20. Investing in the implementation of good practices and technologies for resilience decreases vulnerability to scenarios of climate variability and change, as well as improving productivity. These practices provide farmers with greater social and economic benefits, even if disasters do not occur³⁶,

³⁴ The PSMA is the only binding instrument to combat IUU fishing adopted by the international community. However, there is still worrying institutional weakness in terms of fisheries monitoring, control and surveillance due to the low prioritization of fisheries in the sectoral political agenda.

³⁵ FAO. 1995. <http://www.fao.org/3/a-v9878s.pdf>

³⁶ A FAO study shows a cost-benefit ratio 2.2 times higher than the practices previously used by producers and a cost-benefit ratio of 3.7, reaching a cost-benefit ratio of 4.5 in case of disaster occurrence. FAO, 2019, <http://www.fao.org/3/ca4429en/ca4429en.pdf>

thus contributing to the reduction of poverty and vulnerability. Local knowledge and indigenous knowledge are a valuable source of practices and technologies for improving resilience.

21. Large-scale efforts are needed to bring these practices to small-scale farmers, as well as to develop enabling environments for public policy, extension services, and private sector access to financing and innovation that is necessary for their adoption. The Poverty, Reforestation, Energy and Climate Change (PROEZA) projects in Paraguay and El Salvador's Up-scaling climate resilience measures in the Dry Corridor agroecosystems (RECLIMA), funded by the Green Climate Fund, are examples of transformative models at a scale that promotes inclusive territorial approaches to ensure the resilience of the most vulnerable producers.

22. Nature-based adaptation measures, which increase resilience by integrating the management of natural resources in agriculture, include a wide range of actions such as the valorization of agrobiodiversity, efficient and sustainable soil and water management, and the rehabilitation or increase in the provision of ecosystem services. These practices generate co-benefits in terms of reducing GHG emissions³⁷ and increasing sustainable development alternatives, demonstrating the close relationship between sustainability and resilience in the short and long term.

(d) Improve disaster response and promote recovery and resilience

23. Planning for disaster response, recovery and rehabilitation in the agricultural sector should incorporate DRM approaches and climate change adaptation to avoid risk reproduction, taking advantage of crises to incorporate new climate-adapted technologies. Multisectoral integration and the participation of local actors in risk management are also key elements for success in the response and rehabilitation phase. Here, as in other areas, it is necessary to identify and meet the needs of the different actors, considering the different impacts according to gender, ethnicity and others.

24. The focus of public assistance on those most affected and the adaptation of social protection schemes helps to promote approaches that address the underlying causes of vulnerability as part of a comprehensive disaster response, such as developing employment programmes for the improvement of rural infrastructure, hillside recovery and water conservation. Strategies for the transition to rural development, such as support for associativity and the promotion of production alternatives, should be promoted within the framework of programmes for rapid rehabilitation of production and livelihoods.

2.3. An enabling framework adapted to the new challenges

(a) Towards a new governance

25. The transformation of agriculture will not take place on its own. A strong political commitment is needed, along with significant changes in all sectors of the economy, as well as changes in policies, investments and alliances. To be effective, these policy changes should consider the whole food system, and consider solutions along the whole value chain. The objectives of the 2030 Agenda cannot be addressed through traditional isolated or sectoral policies, but rather through an integrated vision with action on multiple fronts. In addition to practical changes, the transition to more sustainable and resilient agriculture requires the development of political alliances and coalitions with actors beyond the food and agriculture sector. In this regard, FAO can support countries to develop inter-institutional and inter-sectoral coordination and cooperation platforms, and mechanisms that promote the decentralization of decision-making processes, as well as the participation of local governments and social and territorial organizations in the design and implementation of policies.

(b) Greater investment in sustainability and resilience

26. The increase in responsible investment in agriculture, the improvement of financing mechanisms and the formation of human capital are essential to enable rural transformation. Countries may require support to access climate and environmental financing funds, but they must also review and adapt their investment policies and instruments, and promote sustainable production using

³⁷ The IPCC estimates that nature-based solutions can provide more than a third of the necessary mitigation by 2030 to stabilize warming under an additional 2° Celsius.

financial and fiscal incentives. Considering that the main investor in agriculture today is the private sector, it is crucial to generate an enabling and regulatory framework to guide this investment towards resilient and sustainable development.

(c) Innovation and technology

27. Innovation, and in particular the use of digital technology in agriculture, is essential for rural and agriculture transformation. This will increase efficiency in the use and management of natural resources, reduce costs and enable better decision-making. To boost innovation in agriculture, investment is required to strengthen professional capacities, the development of public goods in rural areas, and robust research agendas.

28. FAO invites countries to invest in actions and strategies that seek to integrate and promote synergies between the three lines of action³⁸ proposed for the conference towards food and agricultural systems that ensure healthy diets, promote sustainable food production that is resilient to climate change and that include the poorest and most vulnerable, while generating employment and reducing inequality in rural areas. FAO offers to support member countries to promote integrated strategies based on these principles and to support the achievements of the SDGs.

29. Regarding sustainable agriculture that is resilient to climate change, FAO offers assistance to countries to achieve the following SDGs:

SDG 1	No Poverty
1.5	<i>By 2030, build the resilience of the poor and those in vulnerable situations and reduce their exposure to climate-related extreme events and other economic, social and environmental shocks and disasters</i>
SDG 2	Zero Hunger
2.3	<i>By 2030, double the agricultural productivity and incomes of small-scale food producers, in particular women, indigenous peoples, family farmers, pastoralists and fishers, including through secure and equal access to land, other productive resources and inputs, knowledge, financial services, markets and opportunities for value addition and non-farm employment</i>
2.4	<i>By 2030, ensure sustainable food production systems and implement resilient agricultural practices that increase productivity and production</i>
2.5	<i>By 2030, maintain the genetic diversity of seeds, cultivated plants and farmed and domesticated animals</i>
SDG 5	Gender Equality
5.1	<i>End all forms of discrimination against all women and girls everywhere</i>
5.a	<i>Undertake reforms to give women equal rights to economic resources, as well as access to ownership and control over land and other forms of property, financial services, inheritance and natural resources, in accordance with national laws</i>
5.b	<i>Enhance the use of enabling technology, in particular information and communications technology, to promote the empowerment of women</i>
SDG 6	Clean Water and Sanitation
6.3	<i>By 2030, improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally</i>
6.4	<i>By 2030, substantially increase water-use efficiency across all sectors and ensure sustainable withdrawals and supply of freshwater to address water scarcity and substantially reduce the number of people suffering from water scarcity</i>
6.6	<i>By 2020, protect and restore water-related ecosystems, including mountains, forests, wetlands, rivers, aquifers and lakes</i>

³⁸ LARC/20/2 “Transforming food systems for healthy diets for all”, LARC/20/3 “Hand-in-Hand towards prosperous and inclusive rural societies” and LARC/20/4 “Sustainable and climate resilient agriculture”.

SDG 12	Responsible Consumption and Production
12.2	By 2030, achieve the sustainable management and efficient use of natural resources
i12.4	By 2020, achieve the environmentally sound management of chemicals and all wastes throughout their life cycle, in accordance with agreed international frameworks, and significantly reduce their release to air, water and soil in order to minimize their adverse impacts on human health and the environment
SDG 13	Climate Action
13.1	Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries
13.2	Integrate climate change measures into national policies, strategies and planning
13.b	Promote mechanisms for raising capacity for effective climate change-related planning and management in least developed countries and small island developing States, including focusing on women, youth and local and marginalized communities
SDG 14	Life below Water
14.4	By 2020, effectively regulate harvesting and end overfishing, illegal, unreported and unregulated fishing and destructive fishing practices and implement science-based management plans, in order to restore fish stocks in the shortest time feasible, at least to levels that can produce maximum sustainable yield as determined by their biological characteristics
14.6	By 2020, prohibit certain forms of fisheries subsidies which contribute to overcapacity and overfishing, eliminate subsidies that contribute to illegal, unreported and unregulated fishing and refrain from introducing new such subsidies, recognizing that appropriate and effective special and differential treatment for developing and least developed countries should be an integral part of the World Trade Organization fisheries subsidies negotiation
14.7	By 2030, increase the economic benefits to Small Island developing States and least developed countries from the sustainable use of marine resources, including through sustainable management of fisheries, aquaculture and tourism
14.c	Enhance the conservation and sustainable use of oceans and their resources by implementing international law as reflected in UNCLOS, which provides the legal framework for the conservation and sustainable use of oceans and their resources, as recalled in paragraph 158 of The Future We Want
SDG 15	Life on Land
15.1	By 2030, ensure the conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems
15.2	By 2020, promote the implementation of sustainable management of all types of forests, halt deforestation, restore degraded forests and substantially increase afforestation and reforestation globally
15.3	By 2030, combat desertification, restore degraded land and soil, including land affected by desertification, drought and floods, and strive to achieve a land degradation-neutral world
15.4	By 2030, ensure the conservation of mountain ecosystems
15.5	Take urgent and significant action to reduce the degradation of natural habitats, halt the loss of biodiversity and, by 2020, protect and prevent the extinction of threatened species
15.6	Promote fair and equitable sharing of the benefits arising from the utilization of genetic resources and promote appropriate access to such resources, as internationally agreed
15.9	By 2020, integrate ecosystem and biodiversity values into national and local planning, development processes, poverty reduction strategies and accounts
15.a	Mobilize and significantly increase financial resources from all sources to conserve and sustainably use biodiversity and ecosystems
15.b	Mobilize significant resources from all sources and at all levels to finance sustainable forest management and provide adequate incentives to developing countries to advance such management, including for conservation and reforestation

30. As part of its transformation into a more dynamic, responsive, effective and efficient organization, FAO offers innovative support to countries in the implementation of the work programme described in this document. Today, member countries, rural societies and the agricultural and food systems of the region are very different from what they were in the 1970s and 1980s, when

FAO's presence in the countries and its modus operandi were established. To maximize this presence, and increase the effectiveness and impact of its support for Members in the regional context, FAO seeks to adopt a model that emphasizes³⁹:

- (a) Achieving results in innovations, policies and investments that lead to outcomes and impacts at a scale consistent with the countries' ambitions to comply with the SDGs.
- (b) Working in a more programmatic way and organizing its staff in multidisciplinary teams to integrate policies, norms, knowledge, operations and investment support for member countries.
- (c) Strengthening the operational and implementation capacities of Decentralized Offices in the member countries, particularly those that are experiencing rapid growth in their budgets and work plans.
- (d) Collaboration and partnerships, mobilizing the capacities of the governments of the region, the private sector, civil society, academia and research institutes, to include the development of strategic alliances, and South-South and Triangular cooperation.
- (e) Developing capabilities to perform high quality strategic analysis, monitoring, evaluation, knowledge management and responsibility.
- (f) Maintaining the positive growth trend in the mobilization of resources to better serve member countries.

³⁹ See LARC/20/8 "Improving FAO's capacities to serve member countries in Latin America and the Caribbean".