



# COMMITTEE ON AGRICULTURE

## Twenty-ninth Session

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### FAO's role in improving the uptake and the scaling-up of technologies and innovations for agrifood systems transformation

#### Executive Summary

The level of adoption and scaling-up of technologies and innovations, including Sustainable Agricultural Mechanization (SAM) and digitalization remains weak in low- and middle-income countries (LMICs) due to multiple factors, including limited availability, access, and affordability. FAO plays a critical role in improving the uptake and the scaling-up of technologies and innovations as effective ways to transform agrifood systems by increasing productivity, sustainably managing natural resources, reducing the risks of pests and diseases, increasing input use efficiency, and creating new income generation opportunities. This is being achieved by promoting new institutional models, digitalization, biotechnologies, foresights, participatory research for development, agricultural innovation systems, pluralistic extension services, community-based learning approaches, and partnerships with private sector while promoting social inclusion.

The FAO Strategic Framework 2022-31 considers technology and innovation as accelerators and central driving forces for achieving a world free from hunger and malnutrition. The FAO Science and Innovation Strategy, a tool to support the delivery of the FAO Strategic Framework 2022-31, addresses the barriers and improves adoption and scaling-up of technologies and innovations.

Technologies and innovations can be enablers for inclusive agrifood systems and rural transformation when the barriers of access, adoption and risks are addressed adequately. However, when not properly developed, targeted, managed and implemented, they can exacerbate socioeconomic disparities and lead to a risk of inadequate availability and access for small-scale producers, particularly the poor, women and other vulnerable populations.

FAO developed a Global Innovation Model (GIM) to address the barriers and leverage the potential of technologies and innovations to achieve impact at scale in the shortest time frame, while considering potential risks. In its conceptualization, the GIM is evolving around an innovation architecture consisting of three main components and related services, namely an Acceleration Zone, Incubators and Innovation Hubs. Sustained implementation of FAO's GIM requires transformative partnerships and innovative financing for leveraging technical expertise, accessing research and knowledge, sparking innovation, expanding capacity development and strengthening communication, outreach and inclusiveness to deliver impact at scale for achieving the Sustainable Development Goals (SDGs).

**Suggested action by the Committee:**

*The Committee is invited to:*

- a) *encourage* FAO to continue providing support to Members to enhance the opportunities, and address the barriers to uptake and adoption of technologies and innovations by small-scale producers, including women, youth, and vulnerable or marginalized groups;
- b) *encourage* FAO to develop further a global architecture for innovation [referred to as the Global Innovation Model (GIM)] to accelerate the development, testing, uptake and scaling-up of technologies and innovations that are responsive to the needs and capabilities of small-scale producers, including the poor and disadvantaged or marginalized people;
- c) *encourage* FAO and its partners from the private and public sectors and from civil society to implement initiatives that enable the sustainable adoption of technologies and innovations, including innovative mechanization technologies and digitalization, by establishing policies and strategies that create the enabling environment that is needed for a conducive and effective implementation of Sustainable Agricultural Mechanization (SAM) related programmes.

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## I. Introduction

1. Technologies and innovations (including mechanization and digitalization) play a critical role in the much-needed agrifood systems transformation. There is a growing recognition of the role of governments, research and development partners in improving the identification, development, uptake and scaling-up of technologies and innovations as effective ways to transform agrifood systems. Technologies and innovations offer significant opportunities for increasing productivity, sustainably managing natural resources (water, land), avoiding loss of biodiversity, reducing the risks of epidemics and pandemics, increasing efficiency of input use, creating new employment opportunities, boosting rural development and reducing poverty while promoting gender and social inclusion. Moreover, there is a growing demand for emerging technologies and innovations, including Sustainable Agricultural Mechanization (SAM), digitalization and innovative approaches, systems, and tools. The role of the private sector needs to be strengthened in this process as it has an important role in the uptake and scaling-up of technologies and sustainable mechanization.

2. Nevertheless, being seemingly beneficial, the level of adoption and scaling-up of many technologies and innovations, including SAM and digitalization, remains low in developing countries due to multiple factors, including limited availability, access, and affordability, particularly for poor and marginalized populations. Although particular attention has been paid to the scaling-up of technologies, such as mechanization, with efforts directed towards advancing the utilization of suitable agricultural equipment and practices, the results are far from being achieved. Several factors contribute to this, including limited availability and access to mechanization services by the producers due to inadequate collaboration between public and private sectors, a fragile agricultural mechanization value chain, inadequate technical support, and an ineffective enabling environment.

3. To promote adoption and scaling up of technologies and innovations, FAO collaborates with key partners at global, regional and national levels. For instance, FAO's collaboration with the African Union Commission (AUC) for implementing *The Sustainable Agricultural Mechanization: A Framework for Africa (F-SAMA)*,<sup>1</sup> played a crucial role in the preparation and implementation of the first-ever Global Conference organized by FAO on Sustainable Agricultural Mechanization (GAMC),<sup>2</sup> with the theme 'Efficiency, Inclusiveness and Resilience'.<sup>3</sup> The GAMC led to the creation of calls to action, covering the seven thematic areas of the GAMC with 15 action points. These calls to action emphasize the importance of mobilizing financial, scientific, and technical resources and promoting knowledge sharing through technical Networks. Additionally, they emphasize the need for the adoption of SAM, precision agriculture and digitalization, partnerships, and evidence-based policies. Supplementary information is provided in document COAG/2024/INF/10.<sup>4</sup>

4. Technologies and innovations can be enablers for agrifood systems and rural transformation. However, when not properly designed, managed, and implemented, they can also exacerbate socioeconomic disparities and lead to inadequate availability and access for small-scale producers, particularly the poor, women, youth and other disadvantaged people. In particular, the development of technologies and innovations not tailored to the local context, the lack of investment and relevant training and education, as well as an inadequate enabling environment, including appropriate incentives, are considered as barriers to access, uptake and scaling-up. Better governance, regulatory guidance, investments and oversight are needed to address these challenges. These also include a

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<sup>1</sup> FAO. 2018. *Sustainable Agricultural Mechanization: A Framework for Africa*

<https://openknowledge.fao.org/server/api/core/bitstreams/b8f9eeba-1e5e-40f0-83a5-f269e714ce1e/content>

<sup>2</sup> FAO. 2023. Global Conference on Sustainable Agricultural Mechanization <https://www.fao.org/events/detail/global-conference-on-sustainable-agricultural-mechanization/en>

<sup>3</sup> FAO. 2023. PC 137/8. <https://openknowledge.fao.org/server/api/core/bitstreams/33d2e0cc-55aa-40d9-9ed6-64c0002cbab9/content>

<sup>4</sup> COAG/2024/INF/10. *Scaling up Sustainable Agricultural Mechanization (SAM) and Digitalization*

better understanding of barriers to adoption, strengthening national agricultural research systems, extension, and advisory services, leveraging community-based organizations, improving policy and governance, enhanced partnerships and access to credits.

## II. Technologies and innovations in the FAO Strategic Framework 2022-31

5. The FAO Strategic Framework 2022-31<sup>5</sup> recognizes four cross-cutting/cross-sectional ‘accelerators’: technology, innovation, data, and complements (comprising governance, human capital, and institutions) in all its programmatic interventions, aimed at accelerating impact while minimizing trade-offs. FAO employs a systemic approach that seeks to integrate all four accelerators into the programmes and operations while also ensuring that they streamline the cross-cutting themes of gender, youth, and inclusion. FAO is promoting integration of technologies and innovations into its Programme Priority Areas (PPAs), Regional Initiatives, and Country Programming Frameworks (CPFs) to realize FAO’s aspirations – the *four betters* (*better production, better nutrition, a better environment and a better life*), to achieve the Sustainable Development Goals (SDGs).

6. Technologies and innovations have enormous transformative potential, while recognizing that they also present substantial risks, such as reinforcing inequality, including the gender digital divide, market concentration and contributing to the degradation of natural resources. Helping farmers take full advantage of new technologies, such as sustainable mechanization and its case-by-case business models for increased accessibility, digital agriculture, precision agriculture, biotechnologies, innovations in agroecology, and Artificial Intelligence (AI), to improve the performance of agrifood systems, while respecting the environment.

7. Consideration of and integration of technologies and innovations into the PPAs together with other accelerators and cross cutting themes through a programmatic approach is central in improving the uptake and the scaling-up of technologies and innovations. It ensures that the Organization fully leverages its comparative strengths to promote working at scale for greater sustainability and longer-term impact. Such an approach involves aligning the work at various levels of the Organization around a common vision to be achieved and through multiple means of action. FAO initiatives, the PPAs, and the Regional Priorities are the core building blocks of a programmatic approach that aims to strengthen the integration of four accelerators including technologies and innovations with relevant knowledge and technical expertise in response to Members’ needs.

8. The Office of Innovation (OIN) is leading the efforts to systematically integrate technologies and innovations into PPAs, Regional Initiatives and country programmes, and improve their uptake by small-scale producers including women, youth, and marginalized groups, and promote scaling them up by the public and private sectors. In this context, the Plant Production and Protection Division (NSP), which leads the PPA on ‘Innovation for Sustainable Agricultural Production’ promotes SAM and implements a broad array of activities from policy and strategy development to capacity development.

## III. The FAO Science and Innovation Strategy

9. The FAO Science and Innovation Strategy<sup>6</sup> (the Strategy) is a tool to support the delivery of the FAO Strategic Framework 2022-31 and improve the uptake and the scaling up of technologies and innovations. The Strategy’s overarching goal is that Members can harness science and innovation to realize context-specific and systemic technologies and innovations for more efficient, inclusive, resilient, and sustainable agrifood systems. The Strategy is driven by three interdependent pillars:

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<sup>5</sup> FAO Strategic Framework 2022-31. <https://openknowledge.fao.org/server/api/core/bitstreams/29404c26-c71d-4982-a899-77bdb2937eef/content>

<sup>6</sup> FAO Science and Innovation Strategy. <https://openknowledge.fao.org/server/api/core/bitstreams/e9d1ee6c-c0f1-4312-9a1a-c09ba0a4fbdc/content>

(i) strengthening science and evidence-based decision-making; (ii) supporting innovation and technology at regional and country levels; and (iii) serving Members better by reinforcing FAO's capacities.

10. The Strategy's guiding principles are: (i) rights-based and people-centred; (ii) gender-equal and age-inclusive; (iii) evidence-based; (iv) needs-driven; (v) sustainability-designed; (vi) risk-informed; and (vii) ethics-based. Particular attention is given to the needs of low-and middle-income countries (LMICs), including Small Island Developing States (SIDS), focusing on small-scale producers, family farmers, Indigenous Peoples, women, youth, and other under-represented agrifood systems actors, including micro, small and medium enterprises (MSMEs), to accelerate progress towards the achievement of the SDGs. The knowledge of Indigenous Peoples and small-scale producers is recognized as an important source of innovation for agrifood systems transformation and is considered within the scope of the Strategy.

11. The goal of the strategy is to harness science and innovation to realize context specific and systemic solutions by delivering nine outcomes: (i) enhanced agrifood systems knowledge and evidence; (ii) strengthened science – policy interfaces for agrifood systems; (iii) strengthened research for development; (iv) enhanced access to, and use of inclusive, affordable and context specific innovations and technologies; (v) strengthened capacities of national agrifood innovation systems; (vi) strengthened national capacity to design, implement and evaluate strategies and policies; (vii) enhanced knowledge management and exchange of information; (viii) enhanced science communication; and (ix) strengthened FAO's capacities to enable science and innovation. The Strategy also reinforces FAO's Strategy on Climate Change 2022-2031<sup>7</sup> and contributes to the efforts to adapt and mitigate climate change.

12. The Strategy supports technologies and innovations at regional and country levels, and reflects the importance given to uptake and scaling-up. FAO's comparative advantage rests on its convening capacity and in mobilizing technical expertise and resources for scaling-up pilot initiatives and in ensuring that the uptake of technology and innovation is tailored to local needs and contexts. More specifically, the Strategy aims to: (i) support the establishment and strengthening of national and regional innovation platforms and hubs for knowledge sharing and capacity development; (ii) promote co-creation and co-innovation approaches in national agricultural innovation systems (AIS); (iii) assist Members in improving the capacity of agricultural innovation systems for the co-creation, local adaptation and uptake of innovations through a rigorous approach to the prioritization of innovations and technologies; and (iv) deliver updated information about the full range of technological, social, policy, financial and institutional innovations, including evidence of their effectiveness in given contexts.

#### **IV. Opportunities, risks and barriers of uptake and adoption of technologies and innovations**

13. Both within and beyond agrifood systems, the landscape of technologies and innovations is continuously evolving and ushering in new opportunities for achieving the SDGs. Important strides have been made to demonstrate opportunities in a range of technological fields ranging from mechanization technologies, biotechnologies, nuclear techniques in food and agriculture, digital tools, nanotechnology, big data, data analytics, data science, Artificial Intelligence and Machine Learning – to advancements in the fields of ecology, agronomy, sociology of rural development, and innovations related to agroecology, agroforestry, and technologies that help with the mitigation of and adaptation to climate change.<sup>8</sup> At the same time, market concentration (in technologies and intellectual property)

<sup>7</sup> FAO Strategy on Climate Change 2022-2031. <https://openknowledge.fao.org/server/api/core/bitstreams/f6270800-eee7-498f-9887-6d937c4f575a/content>

<sup>8</sup> UN Secretary General's report on *Agricultural technology for sustainable development: leaving no one behind* (A/78/228), Seventy-eighth session of the UN General Assembly (28 August 2023): <https://digitallibrary.un.org/record/3937125?ln=ar&v=pdf>

has heightened concerns related to risks of access to and adoption of technologies and innovations among and within countries and for small-scale producers and other vulnerable populations.

14. Efforts to improve the uptake and the scaling-up of technologies and innovations should systematically address the barriers listed below:

- economic (higher initial investment, poor access to capital, competing financial priorities, uncertain returns, etc.);
- institutional (lack of institutional support and regulatory frameworks);
- behavioural (conflict with traditional methods, local beliefs and opinions, etc.);
- organizational (lack of skills, poor readiness, etc.);
- consumer/market (lack of market attractiveness and uncertainty, market concentration among the private sector); and
- social (limited understanding of the social context, limited participation of small-scale producers).

15. It is also critical to highlight the importance of planning and implementation of gender transformative, youth-engaging, participatory and socially inclusive action, including strengthening of knowledge, practices and the role of local communities and Indigenous Peoples.

16. Technologies and innovations can be harnessed better for development when risks are identified and mitigated. FAO recognizes the importance of assessing potential benefits, risks and barriers of using new technologies and innovations— including limited benefits, unintended consequences – based on the three dimensions of sustainability according to evidence-based, transparent and rigorous processes. Knowledge of emerging and frontier technologies, including synergies, trade-offs and possible benefits and risks, should be reinforced and shared. Evidence of risks and barriers to the uptake and adoption need to be assessed and possible risks of the introduction of technologies should be mitigated through the application of the FAO Framework for Environmental and Social Management.<sup>9</sup>

17. With regard to the uptake of SAM at country level, the emphasis is on creating the right enabling environment. The private and public sectors need to clarify their roles in mechanization. This clarification process can be conducted within a national mechanization strategy formulation exercise where both the supporting policy role of the public sector and the more active role of the private sector to focus on SAM implementation are emphasized. If these roles are not clarified, this may lead to mechanization initiatives that are public sector driven and which have not been sustainable in the past. Direct public sector interventions in SAM development activities could result in not being efficient, whereas the private sector, including MSMEs, should be leading these efforts.

## **V. Accelerating the uptake and the scaling-up of technologies and innovations and their impact through FAO's Global Innovation Model**

18. FAO's evolving innovation business model is strongly associated with solving problems by identifying global challenges and leveraging the potential of technologies and innovations to achieve impact at scale in the shortest time frame, while considering potential associated risks. In line with the experience of other UN Agencies, FAO's Global Innovation Model (GIM) entails social or other processes which may be facilitated through the application of specific tools and methods. It will promote co-creation of solutions by engaging multiple actors using the agricultural innovation systems approach while considering their differentiated roles and responsibilities in each context.

19. Several challenges affect the attainment of the FAO Strategic Framework 2022-31 vision of accelerating innovation across the Organization's programmes at all levels. Firstly, while there is a

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<sup>9</sup> FAO. 2022. Framework for Environmental and Social Management. Rome. <https://doi.org/10.4060/cb9870en>



significant amount of innovation being generated by FAO's field programmes and the PPAs, there is a need to identify, document, manage and disseminate it more systematically for adoption and scaling-up. Secondly, innovations tend to remain under-scaled relative to their potential and at the same time innovations imported from other contexts can face barriers when adapted locally. Thirdly, there is a need for enhanced integration of FAO's knowledge and experiences on innovation into activities of the PPAs and the field programmes.

20. Better leveraging the role of the accelerators envisioned by the FAO Strategic Framework 2022-31 can play an important role in addressing the above challenges.<sup>10</sup> Firstly, by adopting specific and well-tested methodologies for managing portfolios of innovations by PPA Leads and the FAO Regional and Country Offices can help identify innovations that target strategic development areas with the greatest impact. Secondly, accelerators can support PPAs, regional and country teams in using foresight thinking to integrate scaling-up strategies at the design stage of innovative activities. Thirdly, the accelerators could support PPAs and Regional Initiatives teams in scanning systematically for South-South and Triangular Cooperation (SSTC) opportunities. Enhancing the role of accelerators requires the creation of spaces for co-creation that involve FAO teams, as well as key stakeholders, and the development of facilitation tools and methods.

21. FAO's Office of Innovation is structured around four intertwined workstreams: (i) anticipating change and planning ahead by better leveraging horizon scanning and foresight methods for strategic policy making; (ii) catalysing and scaling by sourcing solutions, and through innovation challenges; (iii) connecting and empowering, by facilitating innovation; and (iv) fostering an innovation culture, by cultivating change. Moreover, OIN is responsible for the technology and innovation accelerators working closely with Technical Divisions, such as the Plant Production and Protection Division (NSP), which focuses on accelerating SAM with its various mechanization and digital technologies, related business models and enabling policies and strategies.

22. To address the barriers and risks and improve the uptake and the scaling-up of technologies and innovations, in support of the implementation of the FAO Strategic Framework 2022-31 and in line with the FAO Science and Innovation Strategy, OIN has developed the GIM in an effort to provide more systematic support to current innovation efforts at FAO, based on the existing accelerators. In its conceptualization, the GIM evolves around an innovation architecture consisting of three main assets and related services.<sup>11</sup>

23. Firstly, an Acceleration Zone has been launched in May 2024 at FAO headquarters with the potential of future Zones being developed in the Regions. The Acceleration Zones will provide a physical and virtual space for different combinations of PPAs, regional and country project teams, and relevant stakeholders to convene and strategize including through a lab-modality approach, around FAO's portfolio of activities, establish priorities, and identify strategic gaps at country level and scaling-up opportunities. The Acceleration Zone will also be a space for FAO's technical teams to come together and identify new ways of working to help the Organization become more agile and whose innovation culture is enhanced. The Acceleration Zone is also expected to create opportunities for the accelerators to contribute to the integration of the PPAs in FAO's programmatic interventions.

24. Secondly, the 'FAO Elevate Incubator' is currently being operated in FAO headquarters with the support of the Innovation Fund. 'Elevate' allows the incubation of ideas and ventures driven by FAO teams in country offices. The project ideas driven by programmes identified through the support

<sup>10</sup> FAO. 2023. PC 137/8 *FAO innovation and technology accelerators: a fit-for-purpose business model to ensure inclusive, efficient, resilient and sustainable agrifood systems transformation*.

<https://openknowledge.fao.org/server/api/core/bitstreams/33d2e0cc-55aa-40d9-9ed6-64c0002cbab9/content#:~:text=The%20Acceleration%20Zones%20will%20provide,priorities%2C%20and%20identify%20strategic%20gaps> .

<sup>11</sup> *Ibid.* <https://openknowledge.fao.org/server/api/core/bitstreams/33d2e0cc-55aa-40d9-9ed6-64c0002cbab9/content#:~:text=The%20Acceleration%20Zones%20will%20provide,priorities%2C%20and%20identify%20strategic%20gaps> .

of the Acceleration Zones, in line with the FAO Country Programming Frameworks (CPFs) could also be considered for incubation.

25. Thirdly, the Innovation Hubs and multi-stakeholder innovation platforms are being established to facilitate engagement of different types of actors within the agricultural innovation systems involving national agricultural research systems and extension and advisory services and other actors.<sup>12</sup> This would bring together stakeholders to share knowledge, co-create innovations, and identify opportunities for the uptake and the scaling-up of new innovations through FAO's field programmes. Innovation Hubs, including the Global Network of Digital Agriculture Innovation Hubs,<sup>13</sup> would provide services on innovation processes and policies. They would also support capacity development in collaboration with other UN Agencies, and regional or international innovation Hubs. Efforts related to improving access to updated information on technologies and innovations, through the Agrifood Systems Technologies and Innovations Outlook (ATIO)<sup>14</sup> and foresight analysis, strengthening the science-policy interface, and promoting public-private partnerships to leverage investments, can contribute to support the scaling up and adoption of technologies and innovations as part of the implementation of national agrifood systems transformation pathways.

## **VI. Transformative partnerships and innovative financing for the uptake and the scaling-up of technologies and innovations**

26. Partnerships are essential for leveraging technical expertise, accessing research and knowledge, harnessing investments, creating momentum, sparking innovation, avoiding duplication and enhancing synergies, expanding capacity development and strengthening communication, outreach and inclusiveness to deliver impact at scale for the SDGs. Constantly evolving public-private partnerships in research and development are seen as an opportunity for the uptake and adoption of technologies and innovation. Partnerships with local, national and regional organizations are particularly important for delivering impact on the ground.

27. Partnerships with research organizations at national, regional and international levels will be strengthened, including the CGIAR, regional research consortia, relevant associations, networks, programmes and partnerships, universities, academies of science, national ministries and extension and advisory organizations. The Tropical Agriculture Platform (TAP),<sup>15</sup> a G20 initiative for multi-stakeholder engagement for strengthening capacity of agricultural innovation systems promotes innovation platforms, innovation policies and enabling institutional mechanisms for improving the uptake and the scaling-up of technologies and innovations. Private sector partnerships will be enhanced – with special attention to MSMEs and entrepreneurs, start-ups, and incubators (particularly women and youth), for example through the Global Network of Digital Agriculture Innovation Hubs.<sup>16</sup> In line with the FAO Strategy for Private Sector Engagement 2021-2025, the Organization will explore mechanisms to partner with the private sector to make appropriate new technologies and innovations accessible in LMICs, for example through open innovation initiatives, challenges, dedicated grants, prizes, etc.

28. Collaboration with the UN entities on science, technologies and innovation needs to be enhanced while avoiding duplication of roles, especially among the Rome-based Agencies (RBAs),

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<sup>12</sup> FAO-COAG (28). 2022. *Promoting more coherent and integrated agricultural innovation systems (AIS) by strengthening national agricultural research and extension systems*. <https://openknowledge.fao.org/server/api/core/bitstreams/0a7c1365-bc7f-4c45-9e96-a7f4d2352a69/content>

<sup>13</sup> The Global Network of Digital Agricultural Innovation Hubs <https://www.fao.org/in-action/global-network-digital-agriculture-innovation-hubs/en>

<sup>14</sup> FAO. 2022. *Introducing the Agrifood Systems Technologies and Innovations Outlook*. Rome. <https://doi.org/10.4060/cc2506en>

<sup>15</sup> Tropical Agriculture Platform (TAP), *Strengthening capacity of agricultural innovation systems* <https://www.fao.org/in-action/tropical-agriculture-platform/>

<sup>16</sup> *Ibid* <https://www.fao.org/in-action/global-network-digital-agriculture-innovation-hubs/en>



and the UN Technology Facilitation Mechanism. FAO will aim to learn lessons from other UN Agencies' experiences on innovation. Innovative cooperation mechanisms, such as the Joint Centres with the World Health Organization (WHO) and the International Atomic Energy Agency (IAEA), will be strengthened. On the policy side, FAO works closely with the African Union Commission (AUC) and the African Conservation Tillage Network (ACT) to implement the *Framework for Sustainable Agricultural Mechanization in Africa* (F-SAMA). This framework supports national teams in embarking in developing national mechanization strategies, and takes into account the specific national and local conditions for the uptake of SAM.

29 Innovative funding and financing – for example through public-private partnerships – is needed to ensure that LMICs are equipped to access and adopt technologies and innovations, and avoid exacerbating Science, Technology and Innovation (STI) gaps among countries. FAO will support, facilitate, de-risk and leverage investments at scale, and ensure that the quality of funding and financing responds to investment needs, including being inclusive and providing long-term benefits for the poor. FAO's updated *Due Diligence Framework for Risk Assessment and Management for Engagements* (FRAME) with non-state actors will be applied to avoid any potential conflicts of interest.

30. FAO will strengthen the cooperation in the areas of science, research, technology and innovation, including traditional knowledge and improved SAM technologies, to bring sustainable practices to everyone. This will include the voluntary sharing of knowledge and practices, and improvement of equitable access to research results and technologies on mutually agreed terms at national, regional and international levels, for instance through South-South and Triangular Cooperation, and improved access to investments and financial resources. To support and coordinate the GIM, FAO will explore innovative funding approaches, in line with what is envisioned in the FAO Science and Innovation Strategy, with the objective of mobilizing financial resources. Additional functions, such as monitoring, evaluation, learning, and financial management would be required to complement the funding function to ensure transparency and accountability of efforts to improve the uptake and the scaling-up of technologies and innovations among small-scale farmers and producers, including rural women.