

Information provided by the Food and Agriculture Organisation of the United Nations on certain terms used in draft Target 10 of the Post-2020 Global Biodiversity Framework

I. INTRODUCTION

1. The Open-ended Working Group on the Post-2020 Global Biodiversity Framework held its fourth meeting from 21 to 26 June 2022 in Nairobi. A Contact Group was set up to advance negotiations on Target 10. Some members of the group suggested that Target 10 could benefit from the Food and Agriculture Organization of the United Nations' technical support. Further to this, the Secretariat of the Convention on Biological Diversity (CBD) invited FAO on behalf of the Co-leads of the Contact Group to share information on terminology included in draft Target 10, in particular definitions available through FAO documents and/or publications, as considered within the relevant FAO context and processes.

2. This document provides information on specific terms discussed in the context of Target 10 of the Post-2020 Global Biodiversity Framework¹, in particular those related to: sustainable agriculture, agroecology, biodiversity-friendly practices, agricultural biodiversity, ecosystem approaches and sustainable intensification.

II. INFORMATION ON SPECIFIC TERMS

Sustainable agriculture

3. The Report of the 94th Session of the Council of FAO, held in 1988, defines sustainable agriculture management as “the management and conservation of the natural resource base, and the orientation of technological change in such a manner as to ensure the attainment of continued satisfaction of human needs for present and future generations. Sustainable agriculture conserves land, water, and plant and animal genetic resources, and is environmentally non-degrading, technically appropriate, economically viable and socially acceptable.”²

4. The 25th Session of FAO's Committee on Agriculture (2016) “endorsed ... five elements [of sustainability in food and agriculture] as a basis for the policy dialogue and governance arrangements needed to identify sustainable development pathways across the SDGs, across sectors and along related value chains.”³ The conclusions and recommendations of the Committee on Agriculture were endorsed by the 40th Session of the Conference of FAO.⁴ The five elements are:

1. Improving efficiency in the use of resources;
2. Conserving, protecting and enhancing natural ecosystems;
3. Protecting and improving rural livelihoods, equity and social well-being ;
4. Enhancing the resilience of people, communities and ecosystems;
5. Promoting responsible and effective governance mechanisms across natural and human systems.⁵

¹[CBD/WG2020/4/4](#).

² FAO. 1988. *Report of the Council of FAO, Ninety-fourth Session, Rome, 15–26 November, 1988*. CL 94/REP. Rome. <https://www.fao.org/3/t0087e/T0087E00.htm#Contents>

³ FAO. 2016. *Report of the 25th Session of the Committee on Agriculture (Rome, 26–30 September 2016)*. C 2017/21. Rome. Paragraph 44. <https://www.fao.org/3/mr949e/mr949e.pdf>

⁴ FAO. 2017. *Report of the Conference of FAO, Fortieth Session Rome, 3–8 July 2017*. C 2017/REP. Rome. Paragraph 43. <https://www.fao.org/3/mu208e/mu208e.pdf>

⁵ FAO. 2016. *Agriculture and the 2030 Agenda for Sustainable Development*. Committee on Agriculture Twenty-fifth Session, Rome, 26–30 September 2016. COAG/2016/4. Rome. Paragraph 25. <https://www.fao.org/3/mr022e/mr022e.pdf>

5. As per FAO's mandate, agriculture is understood to include crop and livestock production, forestry, fisheries and aquaculture.⁶ The five principles for sustainable food and agriculture are presented in more detail, with examples of key policies and practices for each agriculture sector, in the FAO publication *Building a common vision for sustainable food and agriculture. Principles and approaches*.⁷

Sustainable Forest Management

6. The United Nations General Assembly (UNGA), in 2007, recognized Sustainable Forest Management (SFM) as “a dynamic and evolving concept [that] aims to maintain and enhance the economic, social and environmental values of all types of forests for the benefit of present and future generations”.⁸

7. Further to the definition, UNGA Resolution 62/98 states that Member States should consider the following seven thematic elements as a reference framework for sustainable forest management: (1) extent of forest resources; (2) forest biodiversity; (3) forest health and vitality; (4) productive functions of forest resources; (5) protective functions of forest resources; (6) socio-economic functions of forests; and (7) legal, policy and institutional framework.⁹

7. The SFM principles and elements are observed in FAO's normative work related to SFM, including in various voluntary guidelines, in the documentation and dissemination of good practices, in norms, standards, policy and legal frameworks developed with respect to forests and forestry, and in global advocacy work.¹⁰ The concept of SFM is used in FAO data collection processes, including the Global Forest Resources Assessment,¹¹ and for the monitoring of Sustainable Development Goal Indicator 15.2.1: *Progress towards sustainable forest management*,¹² which is under FAO custodianship.¹³

Agroecology

11. As mandated by the 41st Conference of FAO, the FAO Council, at its 163rd Session, in 2019, approved the Ten Elements of Agroecology presented in document CL 163/13 Rev. 1.¹⁴ The Ten Elements of Agroecology are: diversity; co-creation and sharing of knowledge and practices, science and innovation; synergies; efficiency; recycling; resilience; human and social values; culture and food traditions; responsible governance; and circular and solidarity economy. These elements are interlinked and interdependent.¹⁵

⁶ Article I.1 of FAO Constitution. See FAO. 2017. *Basic texts of the Food and Agriculture Organization of the United Nations*. Volumes I and II. Rome. <https://www.fao.org/3/mp046e/mp046e.pdf>

⁷ FAO. 2014. *Building a common vision for sustainable food and agriculture. Principles and approaches*. Rome. <https://www.fao.org/3/i3940e/i3940e.pdf>

⁸ UNGA. 2008. *Resolution adopted by the General Assembly on 17 December 2007. Non-legally binding instrument on all types of forests*. United Nations General Assembly Sixty-second session. A/RES/62/98.

<https://digitallibrary.un.org/record/614195?ln=en>

⁹ Ibid.

¹⁰ For further information, see FAO's sustainable forest management web page: <https://www.fao.org/sustainable-forests-management/en/>

¹¹ FAO. 2018. *Global Forest Resources Assessment 2020*. Rome. <https://www.fao.org/3/I8661EN/i8661en.pdf>

¹² FAO. 2022. *SDG Indicator 15.2.1 metadata: Progress towards sustainable forest management*. Rome. <https://unstats.un.org/sdgs/metadata/files/Metadata-15-02-01.pdf>

¹³ For further information, see FAO's Sustainable Development Goals web page: <https://www.fao.org/sustainable-development-goals/indicators/15.2.1/en/>

¹⁴ FAO. 2019. *Report of the Council of FAO, Hundred and Sixty-third Session, Rome, 2–6 December 2019*. CL 163/REP. Rome. Paragraph 10.h. <https://www.fao.org/3/nb990en/nb990en.pdf>

¹⁵ FAO. 2019. *The ten elements of agroecology*. Hundred and Sixty-third Session of the Council of FAO, Rome, 2–6 December 2019. CL 163/13 Rev. 1. <https://www.fao.org/3/ca7173en/ca7173en.pdf>

12. The Conference of FAO at its 41st Session, in 2019, adopted Resolution 7/2019 on *Further integration of sustainable agricultural approaches, including agroecology, in the future planning activities of FAO*,¹⁶ which recognizes that “agroecology is one approach, among others, to contribute to feeding sustainably a growing population and support countries in achieving SDGs.”¹⁷

13. The FAO publication *The 10 Elements of Agroecology: Guiding the Transition to Sustainable Food and Agricultural systems* further defines agroecology as “an integrated approach that simultaneously applies ecological and social concepts and principles to the design and management of food and agricultural systems. It seeks to optimize the interactions between plants, animals, humans and the environment while taking into consideration the social aspects that need to be addressed for a sustainable and fair food system.”¹⁸

Biodiversity-friendly practices

14. As mandated by the 42nd Conference of FAO,¹⁹ the FAO Council at its 168th Session, in 2021, endorsed the Framework for Action on Biodiversity for Food and Agriculture (Framework), developed under the auspices of the FAO Commission on Genetic Resources for Food and Agriculture. The Framework notes that “the term ‘biodiversity-friendly’ is taken in *The State of the World’s Biodiversity for Food and Agriculture* [...] and in this Framework to refer to production and to practices and approaches that promote the conservation and sustainable use of biodiversity.”²⁰ It directs readers to “Chapter 5 of *The State of the World’s Biodiversity for Food and Agriculture* ... for a description of the status and trends in the adoption of over 20 such practices and approaches.”²¹

15. The Framework for Action on Biodiversity for Food and Agriculture²² is the international community’s response to the report on *The State of the World’s Biodiversity for Food and Agriculture*.²³ Prepared through a participatory, country-driven process under the guidance of the Commission on Genetic Resources for Food and Agriculture, the report draws on 91 country reports, reports from international organizations and inputs from a range of authors and reviewers to provide a description of the roles and importance of biodiversity for food and agriculture, the drivers of change affecting it and its status and trends.

16. The report describes the status of adoption of practices and approaches that can, in some contexts, be considered “biodiversity friendly” in crop and livestock production, forestry, fisheries and aquaculture. The practices and approaches covered include examples implemented at ecosystem, landscape and seascape scales, at farm level (or at the level of equivalent holdings or operations in other sectors), at genetic level, in terrestrial and aquatic ecosystems, and in food processing and agro-industrial processes. The list of practices and approaches is not exhaustive and is the result of expert consultations and inputs from countries via the submission of country reports.²⁴ Examples of such

¹⁶ FAO. 2019. *Report of the Conference of FAO, Forty-first Session, Rome, 22–29 June 2019*. C 2019/REP. Rome.

Paragraph 49.a. <https://www.fao.org/3/na421en/na421en.pdf>

¹⁷ FAO. 2019. *Report of the Conference of FAO, Forty-first Session, Rome, 22–29 June 2019*. C 2019/REP. Rome.

Appendix D. <https://www.fao.org/3/na421en/na421en.pdf>

¹⁸ FAO. 2018. *The 10 elements of agroecology: guiding the transition to sustainable food and agricultural systems*. Rome. <https://www.fao.org/documents/card/en/c/19037EN/>

¹⁹ FAO. 2021. *Report of the Conference of FAO, Forty-second Session, Rome, 14–18 June*. C 2021/REP. Rome. Paragraph 45.b. <https://www.fao.org/3/ng170en/ng170en.pdf>

²⁰ FAO. 2022. *Framework for Action on Biodiversity for Food and Agriculture*. FAO Commission on Genetic Resources for Food and Agriculture. Rome. <https://www.fao.org/documents/card/en/c/cb8338en/>

²¹ Ibid.

²² Ibid.

²³ FAO. 2019. *The State of the World’s Biodiversity for Food and Agriculture*, J. Bélanger & D. Pilling (eds.). FAO Commission on Genetic Resources for Food and Agriculture Assessments. Rome. <http://www.fao.org/3/CA3129EN/CA3129EN.pdf>

²⁴ Further information available in Chapter 5 of FAO. 2019. *The State of the World’s Biodiversity for Food and Agriculture*, J. Bélanger & D. Pilling (eds.). FAO Commission on Genetic Resources for Food and Agriculture Assessments. Rome. <http://www.fao.org/3/CA3129EN/CA3129EN.pdf>

practices and approaches include the ecosystem approach to fisheries and aquaculture, landscape or seascape approaches, sustainable forest management, agroecology, restoration practices, diversification approaches, polyculture, aquaponics, home gardens, agroforestry, agroecology, organic agriculture, sustainable soil management, integrated pest management, pollination management, domestication.

Terms related to agricultural biodiversity

17. The appendix to CBD COP Decision V/5 states that “agricultural biodiversity is a broad term that includes all components of biological diversity of relevance to food and agriculture, and all components of biological diversity that constitute the agro-ecosystem: the variety and variability of animals, plants and micro-organisms, at the genetic, species and ecosystem levels, which are necessary to sustain key functions of the agro-ecosystem, its structure and processes, in accordance with annex I of decision III/11 of the Conference of the Parties to the Convention on Biological Diversity.”²⁵ The terms agricultural diversity, agricultural biodiversity, agricultural biological diversity and agrobiodiversity have been used in various FAO documents, such as guidelines and training manuals, sometimes including variations on this broad definition.

18. The term “biodiversity for food and agriculture” expands the definition agreed by the CBD to reflect the mandate of FAO and include all the sectors of food and agriculture. The Framework for Action on Biodiversity for Food and Agriculture, adopted by the 168 Session of the Council of FAO, in 2021, includes the following definition of the term biodiversity for food and agriculture from *The State of the World's Biodiversity for Food and Agriculture*:²⁶ “the variety and variability of animals, plants and micro-organisms at the genetic, species and ecosystem levels that sustain the ecosystem structures, functions and processes in and around production systems, and that provide food and non-food agricultural products.”²⁷ It further notes that “‘production systems’ are taken to include those in the crop, livestock, forest, fishery and aquaculture sectors. As per FAO’s definition, agriculture is inclusive of forestry, fisheries and aquaculture.”²⁸

Ecosystem Approach

19. The ecosystem approach is described under a CBD COP decision as “a strategy for the integrated management of land, water and living resources that promotes conservation and sustainable use in an equitable way. Thus, the application of the ecosystem approach will help to reach a balance of the three objectives of the Convention: conservation; sustainable use; and the fair and equitable sharing of the benefits arising out of the utilization of genetic resources.”²⁹ More specific approaches have been developed for individual sectors of food and agriculture, notably for fisheries and aquaculture.

20. The FAO publication *Fisheries management. 2. The ecosystem approach to fisheries* defines the ecosystem approach to fisheries as an approach that “strives to balance diverse societal objectives, by taking into account the knowledge and uncertainties about biotic, abiotic and human components of ecosystems and their interactions and applying an integrated approach to fisheries within ecologically meaningful boundaries.”³⁰ It further notes that the purpose of an ecosystem approach to fisheries is “to

²⁵ [COP Decision V/5, Appendix](#).

²⁶ FAO. 2019. *The State of the World's Biodiversity for Food and Agriculture*, J. Bélanger & D. Pilling (eds.). FAO Commission on Genetic Resources for Food and Agriculture Assessments. Rome. <http://www.fao.org/3/CA3129EN/CA3129EN.pdf>

²⁷ FAO. 2022. *Framework for Action on Biodiversity for Food and Agriculture*. FAO Commission on Genetic Resources for Food and Agriculture. Rome. <https://www.fao.org/documents/card/en/c/cb8338en/>

²⁸ Ibid.

²⁹ [COP Decision V/6, Section A](#).

³⁰ FAO. 2003. *Fisheries management. 2. The ecosystem approach to fisheries*. FAO Technical Guidelines for Responsible Fisheries 4. Suppl. 2. Rome. <http://www.fao.org/3/a-y4470e.pdf>

plan, develop and manage fisheries in a manner that addresses the multiple needs and desires of societies, without jeopardizing the options for future generations to benefit from the full range of goods and services provided by marine ecosystem.”³¹

21. The FAO publication *Aquaculture development. 4. Ecosystem approach to aquaculture* defines an ecosystem approach to aquaculture as “a strategy for the integration of the activity within the wider ecosystem such that it promotes sustainable development, equity, and resilience of interlinked social-ecological systems.”³² It further notes that the aim of the ecosystem approach to aquaculture “is to overcome the sectoral and intergovernmental fragmentation of resources management efforts and to develop institutional mechanisms for effective coordination among various sectors active in the ecosystems in which aquaculture operates and between the various levels of government. The two outcomes of this should be:

- i. a ‘truly’ sustainable aquaculture sector (environmentally, economically, socially); and
- ii. change in the public’s (understood as broadly as possible) attitude and perception of aquaculture.”³³

22. In relation to the implementation of the 1995 FAO *Code of Conduct for Responsible Fisheries*,³⁴ the 29th Session of the FAO Committee on Fisheries in 2011 “encouraged Members to apply widely the ecosystem approach to fisheries (EAF) and aquaculture (EAA) and the precautionary approach.”³⁵

Sustainable intensification

26. The current draft of Target 10³⁶ also includes further terms/concepts, including “sustainable intensification”. Although not formally defined by FAO, the concept of “sustainable intensification” has been referred to in a number of FAO publications and Governing Body documents over the last decade and a half.

27. The FAO Committee on Agriculture its 22nd Session, in 2010, supported the FAO Strategy on Sustainable Crop Production Intensification through an Ecosystem Approach and an Enabling Environment (Strategy)³⁷ and in 2012 at its 23rd Session reaffirmed support for the Strategy with the revised title of Sustainable Production Intensification.³⁸ At the latter session, the Committee also “recommended that FAO member countries examine the Save and Grow approach to sustainable production and consider incorporating those aspects that would make their agriculture more sustainable in the light of, and without prejudice to, their national agricultural development strategies. It emphasized that, depending on national priorities and needs, particular attention should be paid to integrating actions on sustainable production with nutrition, food losses and wastes, efficient use of water, conservation and use of genetic resources and soil health.”³⁹

³¹ Ibid.

³² FAO. 2010. *Aquaculture development. 4. Ecosystem approach to aquaculture*. FAO Technical Guidelines for Responsible Fisheries 5. Suppl. 4. Rome. <http://www.fao.org/docrep/013/i1750e/i1750e00.htm>

³³ Ibid.

³⁴ FAO. 1995. *Code of Conduct for Responsible Fisheries*. Rome. <https://www.fao.org/3/v9878e/v9878e00.htm>

³⁵ FAO. 2011. *Report of the twenty-ninth session of the Committee on Fisheries, Rome, 31 January–4 February 2011*. FIPI/R973 (En). Rome. Paragraph 8.g. <https://www.fao.org/3/i2281e/i2281e00.pdf>

³⁶ [CBD/WG2020/REC/4/1](https://www.fao.org/3/i2281e/i2281e00.pdf).

³⁷ FAO. 2010. *Report of the Twenty-Second Session of the Committee on Agriculture (16–19 June 2010)*. CL 140/3 (C 2011/17). Rome. Paragraph 7. <https://www.fao.org/3/K8668e/K8668e.pdf>

³⁸ FAO. 2012. *Report of the 23rd Session of the Committee on Agriculture (Rome, 21–25 May 2012)*. C 2013/22. Rome. Paragraph 13.e. <https://www.fao.org/3/me654e/me654e.pdf>

³⁹ FAO. 2012. *Report of the 23rd Session of the Committee on Agriculture (Rome, 21–25 May 2012)*. C 2013/22. Rome. Paragraph 13.b. <https://www.fao.org/3/me654e/me654e.pdf>

28. The above-mentioned Save and Grow approach is presented in a 2011 FAO publication⁴⁰ that notes, citing Godfray *et al.* (2010)⁴¹, that sustainable intensification has been defined as “producing more from the same area of land while reducing negative environmental impacts and increasing contributions to natural capital and the flow of environmental services.” Citing the report of the 22nd Session of the Committee on Agriculture, the Save and Grow publication further notes that “sustainable crop production intensification (or SCPI) is FAO’s first strategic objective. In order to achieve that objective, FAO has endorsed the ‘ecosystem approach’ in agricultural management.” It also notes, citing a Committee on Agriculture document from 2010,⁴² that “essentially, the ecosystem approach uses inputs, such as land, water, seed and fertilizer, to complement the natural processes that support plant growth, including pollination, natural predation for pest control, and the action of soil biota that allows plants to access nutrients.”

⁴⁰ FAO. 2011. *Save and Grow. A policymaker’s guide to the sustainable intensification of smallholder crop production*. Rome. <https://www.fao.org/3/i2215e/i2215e.pdf>

⁴¹ Godfray, C., Beddington, J.R., Crute, I.R., Haddad, L., Lawrence, D., Muir, J.F., Pretty, J., Robinson, S., Thomas, S.M. & Toulmin, C. 2010. Food security: The challenge of feeding 9 billion people. *Science*, 327: 812–818.

⁴² FAO. 2010. *Sustainable crop production intensification through an ecosystem approach and an enabling environment: capturing efficiency through ecosystem services and management*. Committee on Agriculture, Twenty-second Session, Rome, 16–19 June 2010. COAG/2010/3. Rome. <https://www.fao.org/3/K8079E01/K8079E01.pdf>