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# PROGRAMME COMMITTEE

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## Update on FAO statistics work for SDG indicators and the UN Statistical Commission

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EXECUTIVE SUMMARY

- In May 2022, FAO proposed a set of methodological refinements for three SDG indicators under its custodianship: 2.5.1.b on the conservation of animal genetic resources; 5.a.1 on women's access to agricultural land; and 15.4.2 on mountain green cover. All three refinements were approved by the Interagency and Expert Group on Sustainable Development Goal indicators (IAEG-SDG) in July 2022.
- An updated dataset on SDG indicator 5.a.1, consistent with the refined methodology, has already been published, whereas FAO is now working on preparing the updated datasets for 2.5.1.b and 15.4.2, with a target release date of December 2022 and March 2023 respectively.
- In parallel, FAO has also been working on the development of two "proxy" indicator proposals, with the explicit aim of providing a temporary alternative to the reporting of the corresponding official SDG indicator, given the current dearth of data. Thus, at a closed IAEG-SDG session in August 2022, FAO proposed the temporary use of two proxy measures to facilitate the reporting of SDG indicators 2.3.1 (labour productivity of small-scale food producers) and 2.4.1 (productive and sustainable agriculture).
- FAO is still waiting for feedback on its proposal by the IAEG-SDG. It is possible that this proposal may be discussed at the next official plenary session of the IAEG-SDG, scheduled for 7-9 November 2022. FAO acknowledges that a decision on this matter may take longer than expected, due to the novel and sensitive nature of the request with potential ramifications for other under-reported SDG indicators.

GUIDANCE SOUGHT FROM THE PROGRAMME COMMITTEE

- The Programme Committee is invited to take note of the information provided in this document.

**Draft Advice**

**The Committee:**

- **welcomed the update provided on FAO statistics work for SDG indicators, in particular the three methodological refinements approved by the IAEG-SDG in July 2022;**
- **took note of the two proxy indicators proposed by FAO and their intended use as a provisional stop-gap solution; and**
- **noted with appreciation the regular reports to the relevant Governing Bodies, informal and formal briefings for Members on FAO's statistics work, in particular the SDG indicators, and encouraged Management to continue this transparent and inclusive practice.**

# I. Update on FAO statistics work for SDG indicators and the UN Statistical Commission

1. This document summarizes FAO's latest methodological development work on selected SDG indicators under its custodianship as well as FAO's engagement with the Interagency and Expert Group on SDG indicators (IAEG-SDG), established by the UN Statistical Commission, with a view to obtaining its approval for specific methodological "refinements" or alternative "proxy" indicator proposals.

## *A. Methodological refinements proposed by FAO to the IAEG-SDG in 2022*

2. At the May 2022 IAEG-SDG meeting, FAO proposed a series of methodological refinements for three SDG indicators under its custodianship, aiming to increase the robustness of the measures and sharpen their relevance to the corresponding SDG targets. The three proposals, for indicators 2.5.1.b (ex situ conservation of animal genetic resources), 5.a.1 (women's access to land) and 15.4.2 (green mountain cover) were formally approved by the IAEG-SDG in July 2022, and consist of the following changes:

### i. SDG indicator 2.5.1.b: Widened scope to include "transboundary breeds"

3. The methodological refinement proposed by FAO for SDG indicator 2.5.1.b on the conservation of animal genetic resources consists in widening the scope of the indicator, previously limited to "local breeds" (i.e. breeds existent only in one country), to now also including transboundary breeds, i.e. breeds that exist in more than one country. The refinement was initially requested by the FAO Commission on Genetic Resources for Food and Agriculture 18th Regular Session (27.09.2021-01.10.2021) and hence approved by the IAEG-SDG in July 2022.

4. The rationale for this refinement was that SDG indicator 2.5.1.b, as a measure of "ex situ" conserved genetic materials, should provide an overall assessment of the extent to which countries are conserving the total genetic diversity available for future use, including both local and transboundary breeds.

5. Additionally, while the core methodology of the indicator remains unchanged and does not impose any additional reporting burden on countries, the indicator now aligns more closely with the Global Plan of Action for Animal Genetic Resources, which explicitly covers both local and transboundary breeds. Globally, the number of livestock breed populations for which information is available is expected to almost double, increasing from 4132 to 8096.

6. FAO plans to submit updated data to the global SDG database – in line with the refined methodology – in December 2022. While country data on both local and transboundary breeds are readily available, the aggregation of transboundary breeds at regional and global level is a more complex operation as it requires, for example, caution in the avoidance of duplicate records.

### ii. SDG indicator 5.a.1: Simplified methodology with two minor changes

7. FAO proposed two minor refinements to SDG indicator 5.a.1 on women's access to agricultural land, which together increase the country coverage of the indicator and introduce a higher rigour and consistency in the range of accepted documents, enhancing the alignment of the indicator with the target.

8. First, the refinement foresees that the indicator can henceforth be calculated based also on "(self-) reported ownership/possession of agricultural land", as opposed to the original methodology that required three more "objective" criteria: documented ownership; the right to sell; and the right to bequeath. This is because countries have generally been hesitant to adjust their survey instruments to collect the necessary data items to produce the 5.a.1 indicator, resulting in a low reporting rate. With the new refinement, FAO can leverage a series of existing internationally and regionally-led surveys (Living Standards Measurement Study [LSMS], Demographic Health Survey [DHS], Multiple Indicator Cluster Survey [MICS] and West African Economic and Monetary Union [WAEMU]),

which collect only partial information on undocumented ownership, to substantially expand the country coverage of the indicator.

9. The second refinement to SDG indicator 5.a.1 excludes short-term rental contracts from the list of legally recognized documents for probing ownership and/or secure rights. While rental contracts were initially included to allow for more flexibility in assessing land use rights across different types of tenure systems around the world, they cannot be said to be analogous to ownership (or secure tenure rights) of agricultural land, as in this case the farmer cannot use the land as a collateral and is less likely to invest in long-term improvements, hence their removal from the list of applicable documents.

10. The IAEG-SDG approved the refinements to 5.a.1 proposed by FAO in July 2022, following which FAO submitted updated data – in line with the refined methodology – to the global SDG database in September 2022.

#### iii. SDG indicator 15.4.2: New sub-indicator "15.4.2.b" on the Proportion of degraded mountain land

11. For indicator 15.4.2 on green mountain cover, FAO proposed three methodological refinements to the IAEG-SDG in 2022. This is not the first time that the methodology of this indicator has been refined – indeed, these three new refinements are the culmination of a process that began in 2020 to improve the indicator, under the aegis of a dedicated task force of countries. The refinements improve the quality, relevance and robustness of the indicator in the following ways:

12. First, a new sub-indicator on the "Proportion of degraded mountain land" has been introduced to allow for a more comprehensive monitoring of the conservation of mountain ecosystems. The refinement addresses concerns that expanding green cover is not necessarily always a positive development, especially if triggered by climate change. By adopting methodologies already used by countries for other existing international reporting processes, the reporting burden on countries due to the introduction of this sub-indicator is minimized.

13. Secondly, the UN-SEEA classification of land cover types will henceforth replace the previously used Intergovernmental Panel on Climate Change (IPCC) classification. The use of these more granular UN-SEEA adapted classes will sharpen the disaggregation of the indicator and its ability to detect important drivers of change of mountain ecosystems, such as land conversion or certain impacts of climate change.

14. Thirdly, data will now be disaggregated by mountain bioclimatic belts as defined by Körner et al. (2011) rather than simple elevation, as was previously the case. This allows for a more ecologically consistent international comparison of the indicator's values, bearing in mind that in addition to elevation, latitude is also a key factor in determining life conditions in mountains.

15. FAO has already calculated default country values for SDG indicator 15.4.2 in line with the refined methodology. As these values are based on publicly available remote sensing data and not on official national sources, FAO plans to carry out a country consultation process in order to solicit countries' authorization to publish these values. To this end, in September 2022 the Office of the Chief Statistician dispatched a communiqué to all designated National Statistical Office SDG focal points informing them of the refinement and the upcoming consultation process, and requesting from them the appointment of a national technical focal point for this indicator. Updated datasets for 15.4.2 will thus likely be submitted to United Nations Statistics Division (UNSD) in March 2023. In the meantime, FAO is developing an array of tools to help countries calculate their own national values, with which they will be able to replace the default FAO value in the future, provided that they adopt the agreed methodology.

### *B. Provisional use of proxies proposed by FAO to the IAEG-SDG in August 2022*

16. In parallel to its work on the improvement of existing indicator methodologies, FAO has also been working on the development of two "proxy" indicator proposals, with the explicit aim of providing a temporary alternative to the reporting of the corresponding official SDG indicator, given

the current dearth of data. Thus, at a closed IAEG-SDG session in August 2022, FAO proposed the temporary use of two proxy measures to facilitate the reporting of SDG indicators 2.3.1 (labour productivity of small-scale food producers) and 2.4.1 (productive and sustainable agriculture), both of which currently have a very low country coverage. FAO emphasized that the two proxy proposals would be a provisional, stop-gap solution until countries can produce the official indicators. The IAEG-SDG did not express a position on the matter in the same meeting and suggested that further consultations were necessary.

### i. SDG indicator 2.3.1: Land productivity as a provisional proxy measure instead of labour productivity

17. The official methodology of SDG indicator 2.3.1 is based on labour productivity, intended to capture the productivity of small-scale food producers across all sub-sectors of agriculture (including fisheries, forestry, aquaculture). However, in practice, measuring labour in agriculture is very complex and prone to high measurement error, due to the high prevalence of seasonal and part-time employment and the absence of high-frequency data collections. In addition, agricultural surveys, which are the preferred data sources for indicator 2.3.1, do not ordinarily collect detailed data on labour input, and are effectively limited to crops and livestock. Therefore, while one of the theoretical advantages of measuring labour productivity would be that it allows covering the full spectrum of agricultural activities, in practice this has not proven possible, as the main data collection instrument is limited to crops and livestock.

18. Given these challenges, and despite numerous capacity development initiatives to support countries already organized by FAO, very few countries have been able to report on this indicator to date. For example, national level data on the labour input used by agricultural holdings are available for only 14 low and middle-income countries. In this situation, FAO has proposed the use of land productivity as a provisional proxy measure, for those countries still unable to measure labour productivity.

19. From a statistical point of view, measuring land productivity is less challenging than measuring productivity per unit of labour time given that data on land are more easily available. Empirical analysis has demonstrated that land productivity correlates well with the average labour productivity. Furthermore, using land productivity will neither change the scope of the indicator (which, in practice, will continue to focus on crops and livestock) nor entail any additional reporting burden on countries. Indeed, land productivity is already an accepted measure for two other SDG indicators (one of 11 sub-indicators for 2.4.1 and one of three sub-indicators for SDG indicator 15.3.1).

### ii. SDG indicator 2.4.1: A proposed proxy based on widely available national-level measures

20. The Programme Committee has been updated on developments regarding this indicator since the special interest taken at its 128th Session. Since the official indicator methodology's acceptance in 2018, FAO has invested extensive capacity development efforts to support countries in national reporting. Despite this, data gaps are still pervasive and the official indicator is not likely be reported before 2023 – and only by a handful of countries.

21. This is due to a multiplicity of factors, including the inherent complexity of the indicator (comprising 11 sub-indicators), the absence of alternative data sources, the low frequency of agricultural surveys in countries (which took an additional hit with COVID-19 pandemic), as well as low technical and financial means to include the 2.4.1 module in new agricultural surveys. In this situation, FAO has proposed the use of a provisional proxy indicator that will be able to provide good guidance on countries' progress towards sustainable and productive agriculture until such time as countries are able to produce the official indicator 2.4.1.

<u>Main characteristics of the proxy proposal for indicator 2.4.1</u>

22. The proposed proxy consists of a set of eight established measures of sustainability and productivity in agriculture, based on widely available national statistics linked to FAO annual reporting process (see Table 1 below). These measures mirror, to the extent possible, the corresponding sub-indicators of 2.4.1 (one sub-indicator from each of the three dimensions has been dropped as no corresponding widely available metric was identified).

Table 1: The eight constituent metrics of the proposed proxy indicator and their country coverage as compared with the corresponding sub-indicators of SDG indicator 2.4.1.

| **Dimension** | **2.4.1 sub-indicator** | **2.4.1 Country Coverage** | **Proposed Proxy measure** | **Proxy Country Coverage** |
|---|---|---|---|---|
| **Economic** | Farm output value per hectare | 9% | Gross production value per hectare | 96% |
| **Economic** | Risk mitigation mechanisms | 8% | Gross output diversification | 96% |
| **Environment** | Management of fertilizers | 8% | Fertilizer use per hectare | 82% |
| **Environment** | Variation in water availability | 8% | Agriculture component of water stress (6.4.2 disaggregation) | 90% |
| **Environment** | Management of pesticides | 6% | Pesticide use per hectare | 81% |
| **Environment** | Use of agro-biodiversity-supportive practices | 6% | Proportion of organic agriculture area | 83% |
| **Social** | Wage rate in agriculture | 8% | Agricultural value added per worker (link to 2.3.2) | 72% |
| **Social** | Food Insecurity Experience Scale (FIES) for crops and livestock producers | 6% | Proportion of the population living below the international poverty line in rural areas (1.1.1 disaggregation) | 47% |

23. The proposed measures build on extensive analysis work carried out by FAO over the past two years, leading to the 'Progress towards Sustainable Agriculture (PROSA)' analytical framework (Tubiello *et al*., 2021). The eight proxy measures will be assessed both in terms of the direction of their trend and in terms of their current status, based on established statistical progress assessment methodology.

24. The proxy indicator will act as a stop-gap, interim solution for countries to measure progress towards sustainable and productive agriculture, while better data become available on the official SDG indicator through ongoing capacity development efforts.

### *C. Next steps*

25. As noted previously, the three methodological refinements for indicators 2.5.1b, 5.a.1 and 15.4.2 have already been approved by the IAEG-SDG in July 2022, and the corresponding updated metadata documents are already available on both the global metadata repository and FAO SDG indicators portal. Subsequently, in September 2022 FAO submitted updated datasets for SDG indicator 5.a.1 to the UNSD, with the data being published shortly after. An updated dataset for SDG indicator 2.5.1.b will be released by December 2022, whereas updated datasets for SDG indicator 15.4.2 are expected to be released in March 2023. Also by March 2023, FAO will prepare analytical narratives to summarize the key global and regional trends for the three indicators, feeding into the next editions of the annual global SDG Progress Report and FAO SDG Progress Report.

26. With regard to the two proxy proposals on indicators 2.3.1 and 2.4.1, FAO is still waiting for feedback from the IAEG-SDG. It is possible that this proposal may be discussed at the next official plenary session of the IAEG-SDG, scheduled to take place from 7-9 November 2022. FAO

acknowledges that a decision on this matter may take longer than expected, due to the novel and sensitive nature of the request. For example, an in principle recognition of the possibility for a proxy measure to temporarily substitute an official SDG indicator, may have ramifications for other under-reported SDG indicators, in which case the IAEG-SDG may defer the final decision to the UN Statistical Commission.