Food and Agriculture Organization of the United Nations

SUSTAINABLE DEVELOPMENT GOALS

Summary Report

Virtual Trainings 2024

SDG indicator 2.4.1.

"Proportion of Agricultural Area under Productive and Sustainable Agriculture"

3 Groups:

1. **11-14 June 2024**
   (RAF) Côte d'Ivoire, Lesotho, Malawi, Mali, Mozambique, Zimbabwe
2. **2-5 July 2024**
   (RLC) Bolivia, El Salvador, Nicaragua, Saint Kitts and Nevis, and Trinidad and Tobago
3. **1-4 October 2024**
   (RNE and REU) Algeria, Egypt, Iraq, Mongolia, Syrian Arab Republic, UAE, Ukraine, Uzbekistan and Yemen

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Introduction

GOAL 2: End hunger, achieve food security and improved nutrition and promote sustainable agriculture

Target 2.4

By 2030, ensure sustainable food production systems and implement resilient agricultural practices that increase productivity and production, that help maintain ecosystems, that strengthen capacity for adaptation to climate change, extreme weather, drought, flooding and other disasters and that progressively improve land and soil quality.

SDG Indicator 2.4.1

Proportion of agricultural area under productive and sustainable agriculture

$$SDG2.4.1 = \frac{Area\ under\ productive\ and\ sustainable\ agriculture}{Agricultural\ land\ area}$$

Tier II

An internationally agreed methodology does exist; but very few data points are available

As custodian agency of 21 indicators, FAO is working closely with its member states to develop their capacity on data collection and monitoring, especially as it pertains to sustainable food and agriculture. SDG indicator 2.4.1 - Proportion of agricultural area under productive and sustainable agriculture, which is measured at a farm level using agricultural surveys – is classified as Tier II.

In 2020, the unexpected COVID-19 pandemic engulfed the entire globe, hampering the normal statistical operations of the countries, given that regular data collection activities were no longer possible due to health reasons, budgetary constraints and shift in national priorities focused to combat the pandemic. In addition to this, COVID has also challenged the traditional capacity development activities planned by FAO to support countries on the methodology and data collection of Tier II SDG indicators. Given this context, the SDG 2.4.1 team of the Statistics Division of FAO improvised their capacity development strategy amid COVID-19 that had inhibited international travel and thus in person national and regional trainings and

workshops. In this respect, in close coordination and collaboration with the Regional and Country Offices of FAO, three Virtual Trainings on SDG 2.4.1 were organized between September and October 2020 managing to train 29 countries, resulting in 298 national staff. In detail:

1. 08-09-10 September 2020
   Afghanistan, Indonesia, Kazakhstan, Nepal, Pakistan and Viet Nam
2. 22-23-24 September 2020
   Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Ecuador, Mexico, Paraguay, Peru, Uruguay and Venezuela
3. 13-14-15 October 2020
   Armenia, Belarus, Burkina Faso, Malawi, Mali, Oman, Russian Federation, South Africa, Uganda, Ukraine and United Arab Emirates

The following year (2021), being the worldwide situation unchanged, the SDG 2.4.1 team organized other six virtual trainings, managing to train 81 countries, resulting in 488 national staff. In detail:

1. 27 April 2021
   Bahrein, Comoros, Egypt, Iraq, Jordan, Kuwait, Morocco, Oman, Palestine, Qatar, Saudi Arabia, Somalia, Sudan, Tunisia, United Arab Emirates
2. 1-2-3 June 2021
   Botswana, Burundi, Cabo Verde, Côte d'Ivoire, DRC, Equatorial Guinea, Eritrea, Ethiopia, Guinea, Kenya, Lesotho, Madagascar, Mauritius, Mozambique, Namibia, Rwanda, Sao Tome and Principe and Zambia
3. 28-29-30 June - 1 July 2021
   Bhutan, Brunei Darussalam, Cambodia, Cook Islands, Fiji, Indonesia, Iran (Islamic Republic of), Japan, Lao People's Democratic Republic, Malaysia, Mongolia, New Zealand, Palau, Philippines, Republic of Korea, Samoa, Thailand and Timor-Leste
4. 13-14-15-16 July 2021
   Bangladesh
5. 20-21-22-23 September 2021
   Belize, Bolivia, Brazil, Colombia, Costa Rica, Dominican Republic, Ecuador, Grenada, Guyana, Mexico, Panama, Paraguay, Peru, Suriname and Venezuela
6. 2-3-4-5 November 2021
   Azerbaijan, Belarus, Bulgaria, Croatia, Cyprus, Czechia, Estonia, Georgia, Lithuania, Poland, Spain, Turkey, Ukraine, United Kingdom

In 2022, again other four virtual trainings managed to train 27 countries, with 134 national staff. In detail:

1. 9-10 May 2022
   Timor-Leste
2. 16-17-18-19 May 2022
   Albania, Finland, Gambia, Ghana, Ireland, Malta, Republic of Moldova, Slovakia, Slovenia, South Sudan, Sweden, Togo
3. 6-7-8-9 June 2022
   Algeria, Bahrain, Egypt, Iraq, Jordan, Kuwait, Libya, Morocco, Oman, Palestine, Qatar, Saudi Arabia, Sudan, United Arab Emirates

4. 10-11-12-13 October 2022
   United Arab Emirates

Considering the great success of the trainings, in the same lines, the SDG 2.4.1 team has continued to organize other 3 virtual trainings in 2024 to provide guidance on the SDG 2.4.1 methodology, data collection and analysis relevant to sustainable food and agriculture and on how to asses data gaps starting from available national and subnational (farm-level) information and associated reporting processes.
These virtual trainings on SDG 2.4.1 have been conducted successfully and were attended by 20 countries from African, European, Latin American and Near East Regions. The ultimate aim of these trainings were to build the capacity of the national staff on the methodology, data collection tools and reporting mechanism of SDG indicator 2.4.1. The trainings were of maximum impact, which is evident from the attendance of 133 participants. In addition, the training were cost effective in terms of its organization, as there were no expenses incurred on international travel of the participants, resource persons and on booking venues for the trainings. The virtual trainings accommodated larger number of participants, which usually is not possible in normal in-person trainings due to budgetary constraints. The attendees had diverse backgrounds, including; National focal points of SDG 2.4.1 and staff of National Statistical Offices (NSOs), Ministries of Agriculture (MOA), Ministries of Environment and other agencies relevant to sustainable agriculture.

One distinguishing feature of these 2020-2024 trainings was that apart from the English as a working language, simultaneous translations were often provided in Arabic for the Arab-speaking countries, French for the African Region, Spanish for the Latin American group of countries and Russian for the Near East countries. Availing this option made a huge difference in terms of participant engagement, improved understanding and thus uptake of these trainings by countries for which English was not their official language.

Concluding, FAO successfully trained about 1350 national staff from 118 unique countries globally in the 2020-2024 quinquennium – a vital investment in national statistical capacity to ensure the future of country reporting on sustainable agriculture.

Objectives

The core objectives of these three virtual trainings were to:

- Provide technical training to build capacity of the national staff on SDG indicator 2.4.1 farm survey-based methodology, data collection, compilation and interpretation
- Identify available national and sub-national farm level and other data useful to analyze sustainable food and agriculture
- Understand the data gaps
- Introduce the proxy indicator for interim reporting on SDG 2.4.1
- Discuss the country plans to collect data on the indicator in the short/medium/long term

The trainings also provided the national staff a platform to discuss and share their experiences, constraints and strategies to overcome potential challenges in data collection, analysis and reporting of SDG indicator 2.4.1.

Outputs

The virtual trainings helped the national counterparts in evaluating the availability of national and sub-national data needed to compute indicator 2.4.1, understanding its measurement challenges and introducing effective data collection and reporting mechanisms. The ultimate aim was to provide basis for designing improved data-driven policies and international reporting. Particularly, the following outputs have been achieved through the virtual trainings:

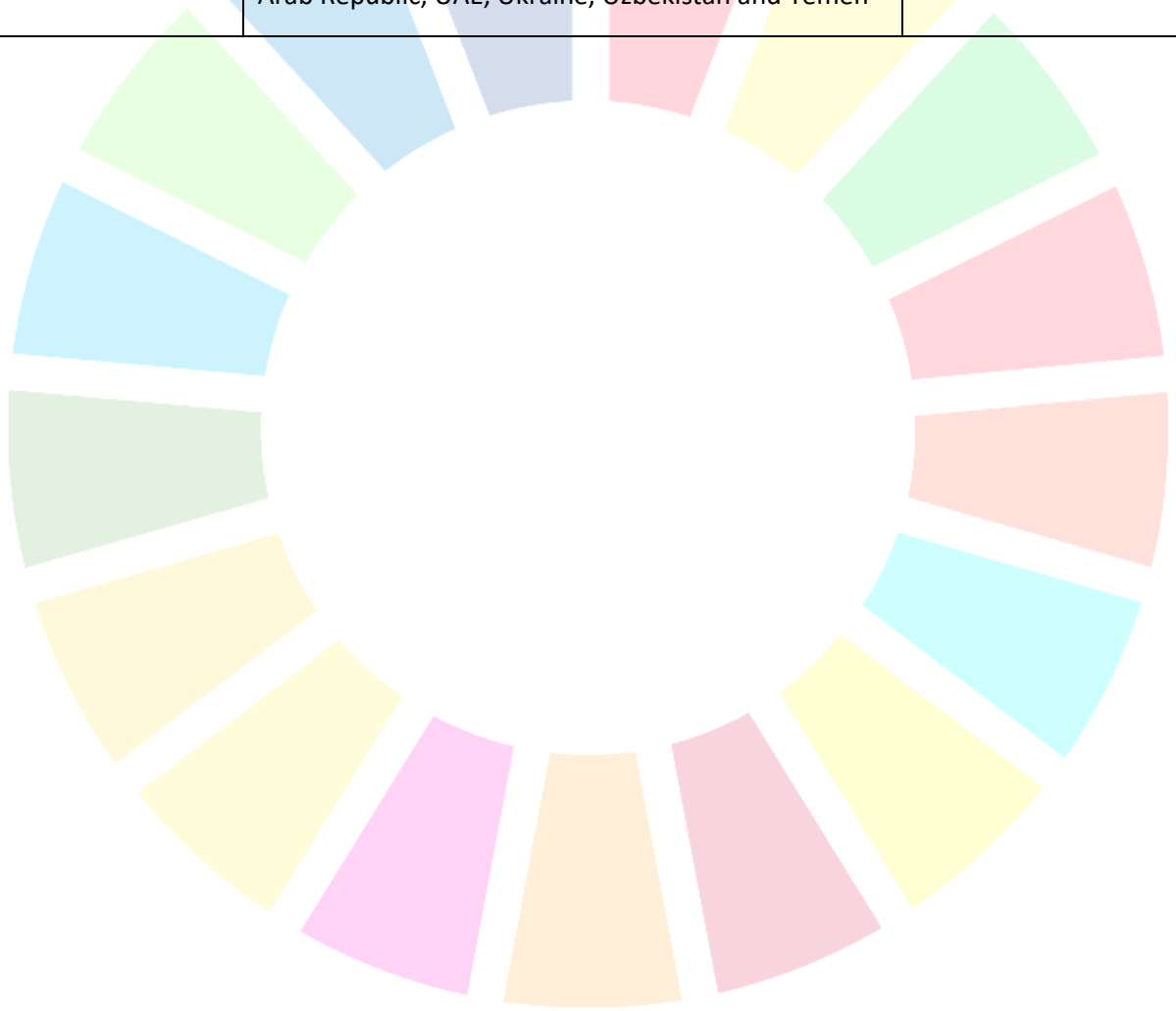
- Trained 20 countries (133 national staff) on the methodology and tools for SDG indicator 2.4.1, so that its adoption at the country level and its reporting to FAO can be supported;
- Three countries (Trinidad and Tobago, Zimbabwe and Lesotho) have submitted an action plan as a result of these trainings that summarize the current situation of data availability on the 11 sub-indicators of SDG 2.4.1 and how they plan to bridge the remaining data gaps (details in Annex 5);
- Five countries (Iraq, Trinidad and Tobago, Zimbabwe, Ukraine and Lesotho) submitted the stocktaking file, to assess the data gaps vis-à-vis SDG 2.4.1 data requirements
- Three countries (Iraq, Lesotho and Zimbabwe) requested further bespoke technical assistance from FAO to implement the indicator (i.e. mapping of the data gaps, customization of existing agriculture surveys, sampling design, data collection and analysis to construct and finally report the indicator).

Agenda

The agenda of the virtual trainings is in Annex 1 (though it slightly varied from one group to another). The resource persons delivered presentations, steered and carried out discussions with the participants on data and capacity gaps and requirements for establishing a robust monitoring system for the SDG indicator 2.4.1. As highlighted earlier, the virtual trainings were organized for countries belonging to different regions, each training has been of a duration of 4 half-days. Each training constituted two

sessions per day of about 1 hour and 30 minutes each. The dates of the trainings and group of countries that participated were as follows:

Dates	Group of Countries	No. of participants
11-14 June	(RAF) Côte d'Ivoire, Lesotho, Malawi, Mali, Mozambique, Zimbabwe	60
2-5 July	(RLC) Bolivia, El Salvador, Nicaragua, Saint Kitts and Nevis, and Trinidad and Tobago	13
1-4 October	(RNE and REU) Algeria, Egypt, Iraq, Mongolia, Syrian Arab Republic, UAE, Ukraine, Uzbekistan and Yemen	60



Training proceedings (though it slightly varied from one group to another):

Day 1 and Day 2

Opening

Mr Arbab Asfandiyar Khan, Economist, ESS, opened the virtual trainings by welcoming the participants on behalf of ESS division of FAO. In his opening remarks, he emphasized the importance of the agenda 2030 and highlighted FAO capacity development support and technical assistance to countries for implementation and monitoring of the 21 SDG indicators under FAO's custodianship. He also underlined that the implementation of the SDG monitoring framework provides an opportunity for countries to improve their agricultural and rural statistical systems. He highlighted the universal nature of the SDGs, and the role of member countries, who are in the driving seat of the Agenda, and have shaped the process; along with the role of custodian agencies, such as FAO.

Ms Stefania Bacci, Statistician, ESS, then introduced the basic rules for carrying out a smooth virtual training through the Zoom application.

Introduction on SDG indicator 2.4.1

Mr Arbab Asfandiyar Khan presented in detail the various aspects of SDG indicator 2.4.1 "Proportion of agricultural area under productive and sustainable agriculture". He described the process for development of the methodology and its fundamental building blocks at length, particularly explaining the scope, coverage, periodicity and themes and sub-indicators covered as part of the framework of SDG 2.4.1. He also gave the historical perspective and highlighted that in 2016, the FAO Strategic Program on Sustainable Agriculture and Global Strategy to Improve Agricultural and Rural Statistics (GSARS) joined forces to develop the pioneer methodology through a consultative and iterative process to reclassify the SDG indicator 2.4.1 to tier II in October 2018. He thereafter touched upon the process of further refinements carried out in the biodiversity sub-indicator that were re-endorsed by Inter Agency and Expert Group on Sustainable Development Goals (IAEG-SDG) in November 2019. He acknowledged at the outset that defining and measuring sustainable agricultural, a multi-dimensional concept is challenging as it is complex and country specific and has never been done before and that SDG 2.4.1 methodology provides the first ever framework to do so. He emphasized that:

- The endorsed methodology is a groundbreaking effort of FAO and is a result of a long participatory and consultative process that involved the contributions of thematic/subject matter experts, statisticians, policy makers and researchers from country institutions i.e. NSOs and MOAs, international organizations, civil society, private sector and academia. It was stressed that the reason behind involving key stakeholders with diverse backgrounds was to make this indicator owned by everybody, specifically countries.
- The current methodology of 2.4.1 embody the fundamental principles i.e. its universality, policy relevance and practicality.

He then elaborated the formula for calculation of the indicator i.e. the extent of agriculture land area under productive and sustainable agriculture (numerator), as well as the agricultural land area (the denominator). Lastly, he touched upon the approaches and strategy for data collection as well as the process and mechanism of reporting the indicator to FAO.

Indicator's framework – Economic, Social and Environmental Dimensions

Mr Arbab Asfandiyar Khan explained in detail the 11 sub-indicators that comprise the framework of indicator 2.4.1. It was highlighted that each sub-indicator is assessed at the level of the agricultural holding and thereafter the sustainability status is associated with the agricultural land area of that holding and the results aggregated at the national and/or sub-national level.

He also explained that in order to capture the concept of continuous progress towards sustainability, the 'Traffic Light' approach is used, in which three sustainability levels are considered for each sub-indicator:

- Green: 'desirable'- Meets desirable sustainability criteria.
- Yellow: 'acceptable' - The sub-indicator meets the minimum sustainability criteria, but still below desirable level: significant progress still possible.
- Red: 'unsustainable' - The sub-indicator doesn't meet the minimum sustainability criteria: major challenges must be overcome.

Mr Arbab Asfandiyar Khan then reiterated that based on the threshold values for each sub-indicator, the farms and its agriculture land areas are assigned sustainability status using the traffic light approach. Specifically, the sub-indicators by its sustainability status are expressed as percentage of total agricultural land area at the national and/or sub-national levels. Finally, the 11 themes/sub-indicators are reported separately in a dashboard. The dashboard is reported at national level for international reporting. However, for national policy purposes (if needed) the dashboard can be produced at sub-national or other administrative levels, different holdings types i.e. household or non-household sectors, crop/livestock/mixed systems and irrigated and or non- irrigated holdings.

Moreover, he exemplified the Bangladesh pilot testing results (carried out in 2018-19) while explaining the methodology of each sub-indicator. However, it was highlighted that the tests in Bangladesh were conducted based on an earlier version of the methodology and survey questionnaire and thus it doesn't reflect the latest version of the methodology reapproved by the IAEG-SDG in November 2019. It was highlighted that the STATA scripts developed back then were to analyse Bangladesh pilot data, but that the STATA script shared with participants at the end of the training is fully harmonized with the latest methodology and survey questionnaire. This means that the STATA tool can be used for the analysis of data that will be collected as it fully encompasses all the variables that will be captured through the survey module.

The presentations were followed by Question and Answer (Q&A) sessions where participants asked several technical and process related questions to clarify the concepts, methodology, thresholds, data collection and sources and its applicability for their respective countries. They were also followed by practical examples explained through an Excel file (SDG241_Example_Calculation_11Sub-indicators.xlsx) where, for each sub-indicator, Mr Arbab Asfandiyar Khan walked the participants through the steps to calculate each single sub-indicator.

Day 3

SDG 2.4.1. Data collection tools (survey questionnaire and alternative data sources)

Mr Arbab Asfandiyar Khan explained FAO strategy and the options that have been developed to enable data collection at the country level on SDG 2.4.1. Each option was then covered in detail, that include 1) standalone questionnaire module, 2) 50x2030 initiative and 3) the possibility of using existing or alternative data sources. In this session, he presented thoroughly the standalone questionnaire and the supplementary documents (including the Enumerators manual, data entry manual, calculation procedure and sampling guidance). Finally, it was highlighted that countries can use existing/alternative data sources to report on sub-indicator 2.4.1 provided the data sources fulfil the conditions recommended by the methodological note.

FAO SDG 2.4.1 data collection questionnaire

Ms Bacci showed the data collection questionnaire, the tool using which FAO collects data on SDG 2.4.1 from countries. This questionnaire was dispatched for the first time to all member countries on August 10 2020, and then regularly dispatched every year. The questionnaire is addressed to SDG 2.4.1 national focal points, the general SDG focal points and to the Head of NSOs, with copy to FAO regional and country offices. The deadline set for this year was highlighted in the presentation (21 June 2024). She also showed in detail the different parts of the questionnaires, the three Introductory sections i): cover page, – which asks country-specific information; ii): instructions - on how to complete the questionnaire and its structure; and iii): definitions - key concepts, terms and international standards used), the three data reporting sections (one for each dimension, economic, social and environmental), the dashboard sheet that comprises of two tables and a visual representation of a dashboard and aggregate value, and two supplementary information sections (metadata – that collects information on the variables and data items, its coverage, source, unit of measurement, frequency etc.; and feedback – that includes a simple survey with 9 questions that helps FAO in further improving the questionnaire. She also emphasized the importance of filling the questionnaire in the correct way, especially the data reporting sections.

Data collection and reporting status (2020/24) of SDG 2.4.1

Ms Bacci presented the results of the comprehensive dispatches of FAO data collection Questionnaire that were dispatched to all member countries from 2020 to 2024. She illustrated the background, scope and the objectives. Then she presented salient results of the tests: 77% of the countries acknowledged receipt of the questionnaire; 67% sent the questionnaire back partially or completely filled; and 28% provided actual data. She focused on the 54 countries that provided actual data and emphasized that they used both farm survey data as well as existing data from other sources, proxies and expert judgement. Moreover, she illustrated the situation of data availability by sub-indicator, presented results comparing the 2020-23 results vs the 2020-24, and she concluded presenting the next steps.

Data reporting to FAO (with focus on FAOSTAT)

Mr Nathan Wanner presented FAOSTAT platform, an established FAO process for data collection and reporting on food and agriculture data. For each FAOSTAT domain, he requested the countries that participated in the training to take a look at the national Focal Points and as well the status of data reported in the last 3 years. It was stressed that the participants coordinate with the relevant institutions and concerned officials to reconfirm the focal points, and if a given country hasn't reported data in the

last 3 years, then find out the underlying reasons for this situation so that the issues can be discussed and resolved.

FAO SDG 2.4.1 Country Case Studies

Mr Khan presented some countries case studies of pilot test. Conducting a pilot test has several advantages: it allows to conduct a stock taking of data needed; ascertain potential data sources (including alternative instruments); conduct a mapping exercise; identify variables and data gaps; select an instrument to gather the missing data; customize and finalize the chosen existing survey instruments; collect data and check feasibility of building the sub-indicators and making assessments of overall sustainability using proposed sustainability criteria; present the aggregate SDG Indicator 2.4.1 in a dashboard using the methods described; document main findings, provide recommendations on the next steps in respect to monitoring the SDG Indicator 2.4.1 at the national level and alignment with the policy process in the country and present in the report; and finally to identify constraints, gaps or challenges encountered during the pilot and address those before scaling up data collection to the national level.
Mr Khan highlighted all the prerequisites, steps and timeframe needed to undertake a pilot in a country and showed some details of countries experiences.

Day 4

SDG 2.4.1 Proxy Reporting

Mr Wanner introduced the SDG 2.4.1 proxy explaining that the current low availability of data on 2.4.1 and the humble prospect to report enough data by 2030 were about to leave a gaping hole in SDG reporting. Monitoring the sustainability of agriculture is central to the 2030 Agenda and to closely related processes such as the Food Systems Summit and the Climate Convention. As a stopgap solution, FAO has prepared a provisional proxy indicator that, though not meant to replace SDG indicator 2.4.1, is able to enable FAO to provide a first gauge of countries' progress towards sustainable and productive agriculture, until such time as countries are able to report directly on indicator 2.4.1. The proxy indicator consists of a set of 7 established measures of sustainability and productivity in agriculture, based on widely available national statistics linked to FAO established statistical reporting processes, some related to other SDG indicators: Gross production value per hectare, Gross output diversification, Nitrogen Use Efficiency, Agriculture component of water stress, Greenhouse gas emissions intensity, Agricultural value added per worker and Informal employment in agriculture. The 7 chosen measures mirror, to the extent possible, the 11 sub-indicators of 2.4.1, maintaining a good balance between the socio-economic and environmental dimensions recognized as the three pillars of sustainable development. Contrary to SDG indicator 2.4.1, whose 11 sub-indicators are meant to be collected at farm level, data for the 7 proxy measures are collected and analyzed directly at national level. Additionally, unlike the original SDG indicator 2.4.1, whose 11 sub-indicators are each assigned specific sustainability threshold to assess their current distance to that level, the 7 proxy measures are assessed both in terms of the direction and consistency of their trend and in terms of their current status. Mr Wanner, then, explained in detail all 7 metrics one by one.

Country Experiences

Malawi (RAF group), Ecuador (RLC group), and Hungary and Belarus (REU + RNE group) have shared their experiences in collecting and compiling the SDG 2.4.1 indicator. These presentations provided valuable opportunities for participants from other countries to learn from practical experiences and challenges, while also enabling the presenting countries to showcase their work and receive constructive feedback and suggestions. The presentations covered a range of topics, including staff training, data collection processes, sampling methods, challenges encountered (particularly in compiling sub-indicators), lessons learned, and future plans.

Indicator 2.4.1 Short/Medium/Long term expectations

In this session Mr Arbab Asfandiyar Khan covered the short, medium and long term expectations of FAO in terms of SDG 2.4.1 implementation and reporting. He highlighted that in the short run countries may only be able to report on the sub-set of the 11 sub-indicators. He emphasized that collecting information on the remaining sub-indicators to report on the entire dashboard will be a gradual process i.e. as and when data and capacity gaps are bridged by the countries over time. In the same presentation participants were also informed about the FAO data collection plans and the upcoming activities on development of guidelines on use of alternative data sources to report on the indicator.

Discussion on challenges in data collection and reporting on SDG indicator 2.4.1 and action plan to overcome it

In this session, the participants of each country discussed and elaborated on below questions:

- Are you currently using any framework to report on sustainable agriculture? If yes, can these ongoing processes help feed into 2.4.1?
- To what extent your country is ready to report on the SDG 2.4.1 based on the current farm survey approach?
- What alternative data sources and proxies do you envision that can be used to report on the respective 11 sub-indicators of SDG 2.4.1?
- What are the constraints that inhibit your country to report on SDG 2.4.1 in the short term (given the current state of agriculture statistical system)? How are you planning on overcoming these challenges in the medium to long term?
- What do you expect from FAO in terms of further support to help you improve the reporting on 2.4.1?

Though preliminary feedback was received during discussions with country participants, however, towards the end of the session, it was agreed with the participants that the stocktaking exercise for SDG 2.4.1 should be completed and sent back to FAO to assess the data gaps. As well it was decided that an action plan will be submitted by each country covering the potential future steps on implementation and reporting the indicator. In general, some countries requested further support i.e. tailored technical assistance and training to overcome the remaining challenges and resource constraints in integrating SDG 2.4.1 needs with agricultural surveys to produce required data and also data processing and analysis to compute the 11 sub-indicators. The participants were requested to approach FAO formally, by writing to the SDG 2.4.1 team at FAO HQ while keeping in the loop their respective FAO regional and country offices (i.e. RAP/RAF/RLC/REU/RNE) for requesting further technical assistance and support on the indicator in particular and improving the agricultural statistical systems in general.

Wrap-up

Mr Arbab Asfandiyar Khan and Ms Bacci officially closed the virtual training. They thanked and expressed their gratitude and profound appreciation to the participants and their country institutions and organizations for having supported the virtual training by making room in their busy work schedule to attend the training. They also thanked all the FAO colleagues from the Regional and Country Offices for their contributions in supporting SDG 2.4.1 team with the organizational aspects of the training, especially in making the last-minute arrangements for some of the simultaneous translations. Before closing, the attendees were requested to evaluate the course (anonymously) by filling in an online evaluation form. The results of evaluation help the SDG indicator 2.4.1 team in further improving the structure and organization of the course for future trainings. The results of the evaluation can be found in Annex 2.

Recordings of all the sessions for each Group of countries can be found in Annex 3.

Results and main conclusions

- 133 participants from 20 countries were trained on the conceptual, methodological and technical issues, data collection, compilation, reporting and interpretation of the indicator through presentations, discussions, Q&A sessions and quizzes;
- FAO introduced tools for the indicator's data collection including standalone survey module and alternative data sources i.e. censuses, administrative records etc.;
- The activity trigged the process of assessment of the available national and sub-national data required to measure and report on the indicator through stocktaking exercise and action plans to be submitted by the participating countries.

Next steps

The below listed next steps were mutually agreed upon, where countries were requested to provide one official consolidated response per country to be sent to sdg241-indicator@fao.org:

- Fill in and send back to FAO 2024 data collection questionnaire using current available data.
- Fill in and send back to FAO the Stocktaking Excel Sheet to assess the data gaps vis-à-vis SDG 2.4.1 data requirements
- Prepare a two to three pages action plan for implementation of and reporting on 2.4.1: The action plan has to take into account the following questions:
    - Which sub-indicators can your country report immediately?
    - Identify and highlight the constraints/issues that inhibit your country to report on the entire dashboard of SDG 2.4.1.
    - What action will be taken and by when by your country to overcome these constraints and issues to be able to collect data on SDG 2.4.1 and report it to FAO?

Countries action plans can be found in Annex 5.

Annex 1: Template agenda of the virtual trainings

SDG indicator 2.4.1			
Day 1			
Session	**Description**	**Presenter/ Facilitator**	**Time slot (in minutes)**
Opening	Welcome address / Introduction / Objectives of the training	FAO – Arbab Asfandiyar Khan and Stefania Bacci	15
Session 1	SDG 2.4.1: Proportion of agricultural area under productive and sustainable agriculture	FAO – Arbab Asfandiyar Khan	35
Session 2	Sub-indicators in the economic dimension	FAO – Arbab Asfandiyar Khan	40
Break			**30**
Session 3	Sub-indicators in the economic dimension (cont.)	FAO – Arbab Asfandiyar Khan	85
Session 4	Q&A and Wrap-up	FAO – Arbab Asfandiyar Khan	5
Day 2			
Session 1	Sub-indicators in the environmental dimension	FAO – Arbab Asfandiyar Khan	90
Break			**30**
Session 2	Sub-indicators in the environmental dimension	FAO – Arbab Asfandiyar Khan	85
Session 3	Q&A and Wrap-up	All	5
Day 3			
Session 1	Sub-indicators in social dimension	FAO – Arbab Asfandiyar Khan	45
Session 2	SDG 2.4.1. Data collection tools (survey questionnaire and alternative data sources)	FAO – Arbab Asfandiyar Khan	30
Session 3	FAO SDG 2.4.1 Data collection questionnaire	FAO – Stefania Bacci	15
Break			**30**

Session	Description	Presenter/ Facilitator	Time slot
Session 4	Data reporting to FAO (with focus on FAOSTAT)	FAO – Nathan Wanner	40
Session 5	Findings of the 2020-2024 dispatches of SDG 2.4.1 FAO data collection	FAO – Stefania Bacci	30
Session 6	FAO SDG 2.4.1 Country Case Studies	FAO – Arbab Asfandiyar Khan	15
Session 7	Q&A and Wrap-up	All	5
Day 4			
Session 1	SDG 2.4.1 Proxy Reporting	FAO – Nathan Wanner	30
Session 2	Practical steps on national adoption and implementation of SDG 2.4.1	FAO – Arbab Asfandiyar Khan	20
Session 3	Indicator 2.4.1 Short/Medium/Long term expectations	FAO – Arbab Asfandiyar Khan	40
Break			**30**
Session 4	Country Experiences	Country	60
Session 5	Discussion on challenges in data collection and reporting on SDG indicator 2.4.1 and action plan to overcome it	All	20
Session 6	Wrap-up, next steps, evaluation and closing (group photo)	FAO – Arbab Asfandiyar Khan and Stefania Bacci	10

Annex 2: Evaluation of the virtual trainings

The attendees of the virtual trainings were requested to evaluate the course (anonymously) by filling in an evaluation form administered during the training in real time. The analysis of the results of this evaluation will help the SDG indicator 2.4.1 team improve the content, timing and organization of the training course for future events. The summary findings and high-level results for the evaluations are described below, however for technical issues the first two groups are not included in the analysis.

It is evident that the SDG 2.4.1 virtual trainings were a great success, as participants overwhelmingly rated them highly in terms of content, relevance, usefulness, and organization. Most respondents indicated "agree" or "strongly agree" to nearly all evaluation questions.

An outstanding score was received about the quality and knowledge of resource persons, the skills of facilitators, and the administration of the training itself. Critical point was emphasized by 14% stating that the virtual training was not as good as an in-person training.

Concluding, the overall score is high, which means that the participants did appreciate and absorb the methodology and concepts of the SDG 2.4.1 and are ready to apply the knowledge acquired to their job.

Here below are reproduced the 10 questions:

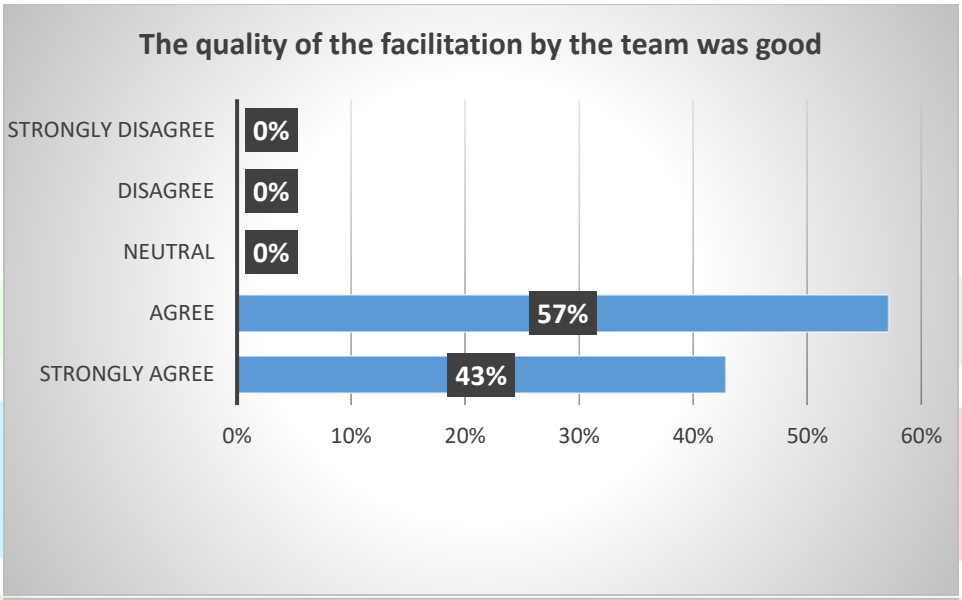
The main goal of the course was to help you gain a clear understanding of the SDG indicator and its methodology. More specifically the sessions are aimed at increasing your understanding about:

- key concepts and methodology of the indicator
- data collection strategies
- reporting mechanisms

To what extent was this goal achieved?

Very Low	Low	Average	High	Very High
1	2	3	4	5

Please provide the answer that better reflect your opinion for the next 9 questions					
	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1. The Virtual Training was as good as in person training	❍	❍	❍	❍	❍
2. The overall length of the Virtual Training was adequate	❍	❍	❍	❍	❍
3. The sessions were well organized and easy to follow	❍	❍	❍	❍	❍
4. The exercises were relevant and useful	❍	❍	❍	❍	❍
5. The questions raised by participants were answered appropriately	❍	❍	❍	❍	❍
6. I intend to apply the knowledge acquired to my job	❍	❍	❍	❍	❍
7. I intend to disseminate the knowledge acquired to the relevant actors	❍	❍	❍	❍	❍
8. The quality of the facilitation by the team was good	❍	❍	❍	❍	❍
9. The administration of the workshop (facilities, logistics, support, etc.) was adequate	❍	❍	❍	❍	❍


The quality of the facilitation by the team was good
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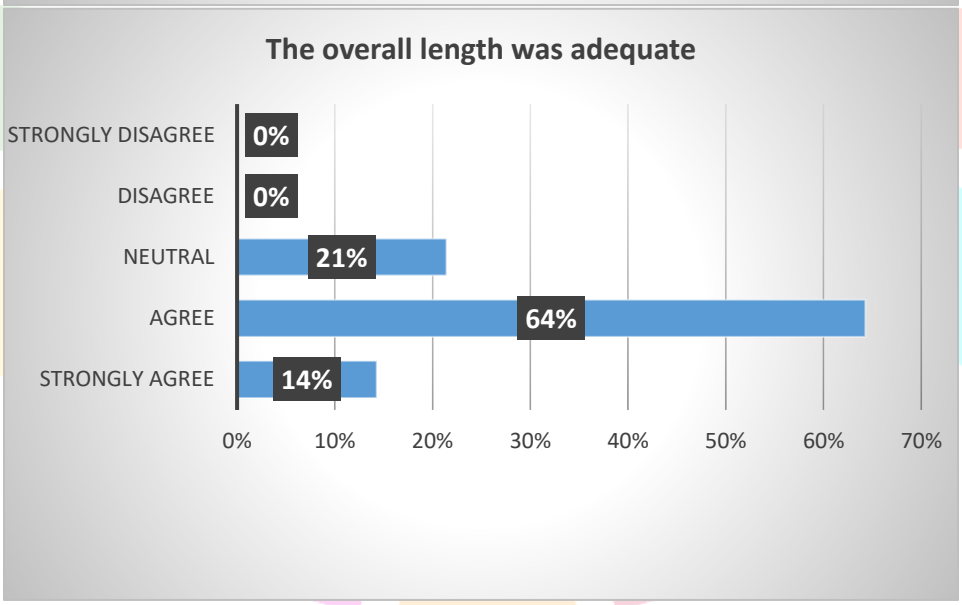
The overall length was adequate
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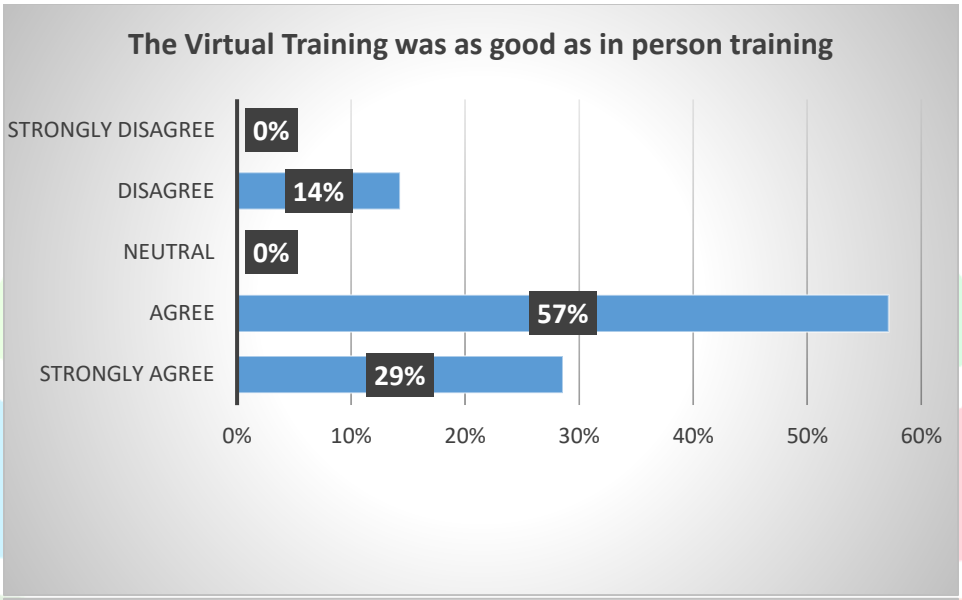
The Virtual Training was as good as in person training
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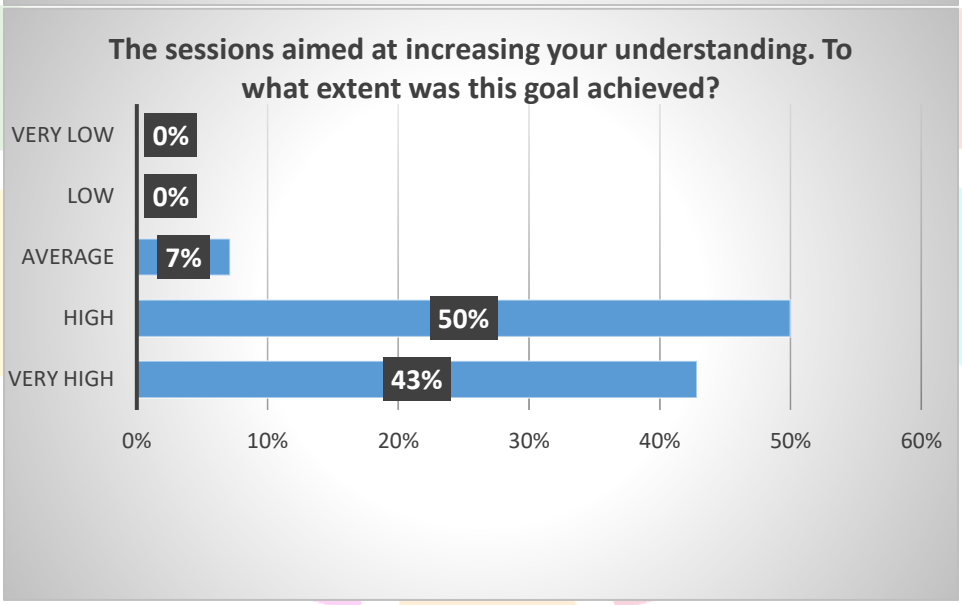
The sessions aimed at increasing your understanding. To what extent was this goal achieved?
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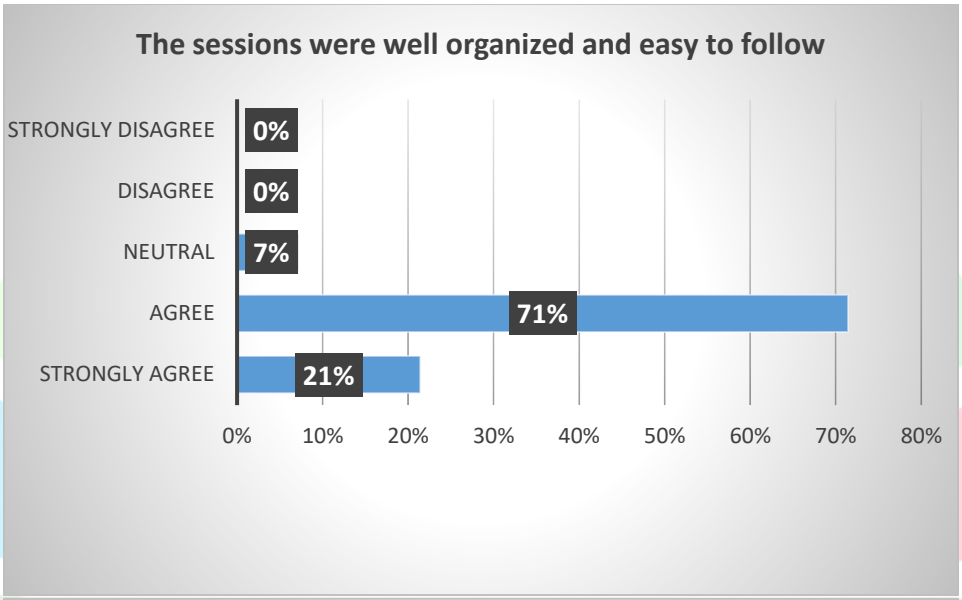
The sessions were well organized and easy to follow
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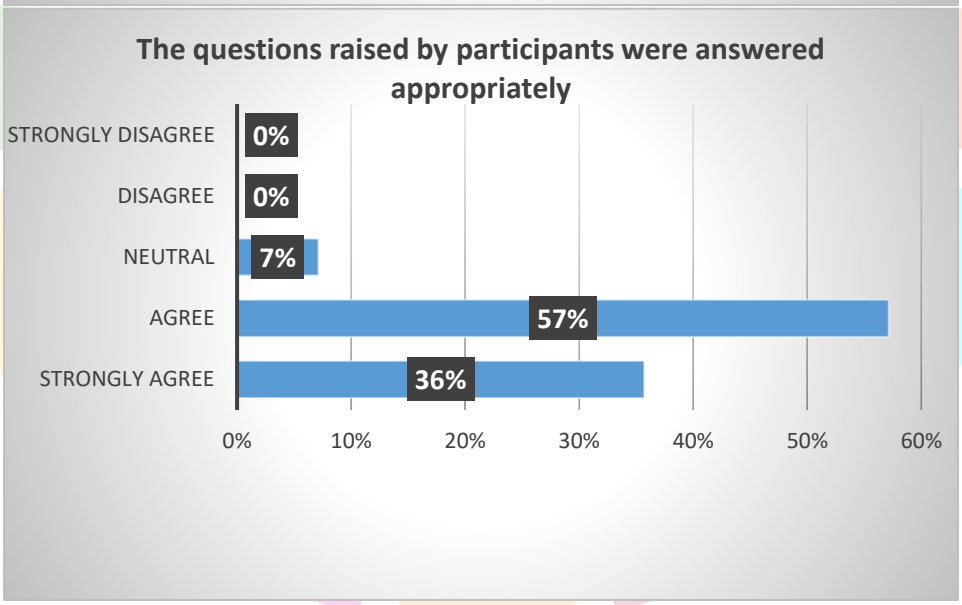
The questions raised by participants were answered appropriately
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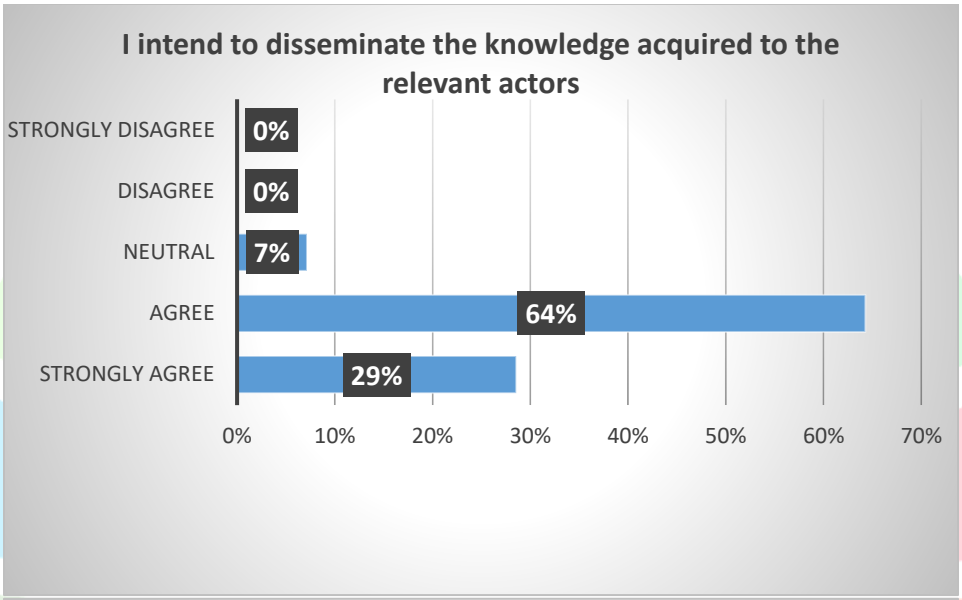
I intend to disseminate the knowledge acquired to the relevant actors
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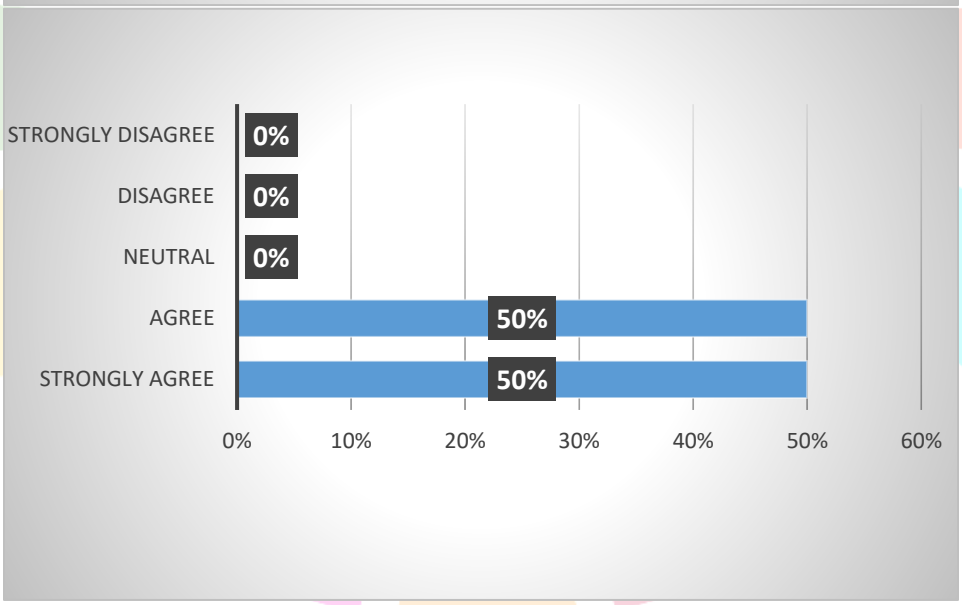
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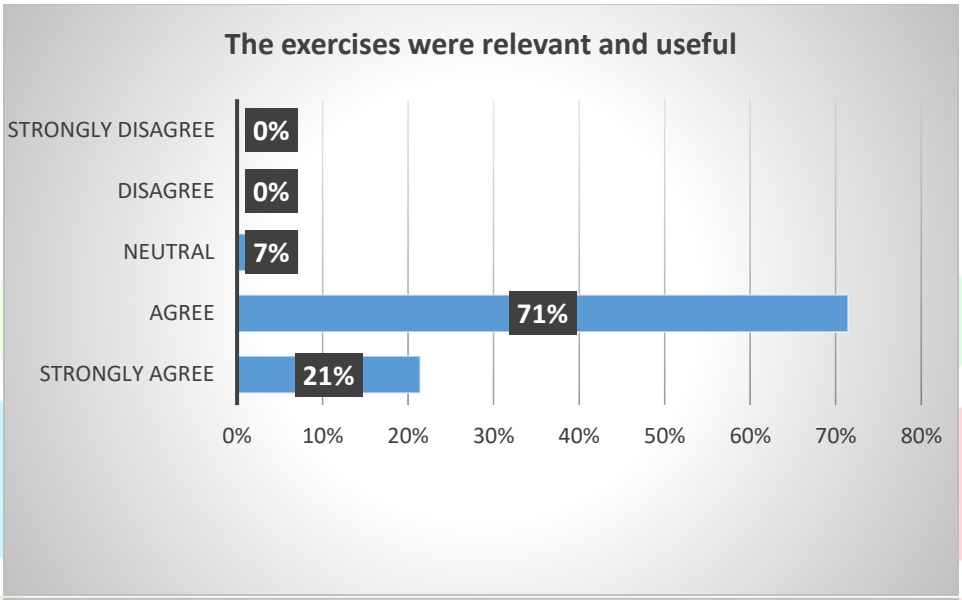
The exercises were relevant and useful
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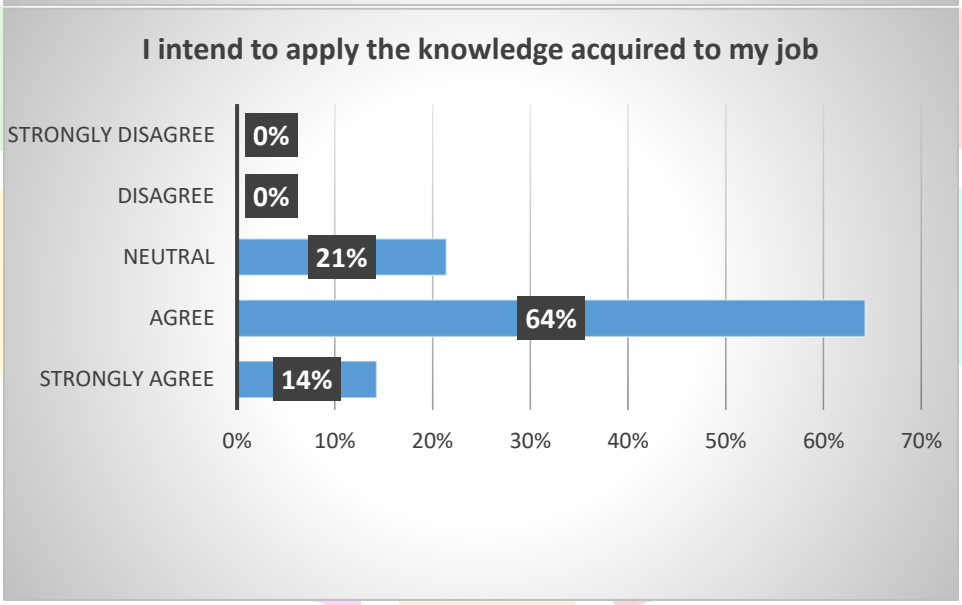
I intend to apply the knowledge acquired to my job
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Annex 3: Recordings

1. **11-14 June 2024**
   (RAF) Côte d'Ivoire, Lesotho, Malawi, Mali, Mozambique, Zimbabwe

- Day 1: https://fao.zoom.us/rec/share/99lNdLVun6sA8PJXXK7HSYZK-jnyy6BbKZfL-U-SfBAMMr6c4EuZsqx218GIE_X0.zz9FZgA1JRSViptq
- Day 2: https://fao.zoom.us/rec/share/DtafJT1byRtbII1z0I6v-fcq6_wE43HB6EQIAGnS03ubNxXBJ5ljylSGOvxJJeKa.B2kpG556OpvE1kBu
- Day 3: https://fao.zoom.us/rec/share/zBghkICuJ7j34ODcjuN-gEwncVP1eXmPH4nDiQyBxdfqa9Z9OCldJh7F7cdK_PGo.r5qpTy7qIILvsanw
- Day 4: https://fao.zoom.us/rec/share/cGypPx_QddLH_l6LvsxyQrizjPArjWSgTm55f_TuUrGUTxRwoVZY-X7zO9he6tu-.hozanZDirvVtc5sv

2. **2-5 July 2024**
   (RLC) Bolivia, El Salvador, Nicaragua, Saint Kitts and Nevis, and Trinidad and Tobago

- Day 1: https://fao.zoom.us/rec/share/xEuSGXXLStq1HKC26wMWx3-C8xIAxbHDC3jVWqn5xjBSVRuKm6nXgRNo-tudkRY2.MXvulRaHPwAiuv80
- Day 2: https://fao.zoom.us/rec/share/ugoisOGLLvSpvZKdiRDuMU_jAe3AnEA_zT0JPunrXHt30RMQ96XHNaIweR3FOiGf.6wUMuumYMAjxoSPI
- Day 3: https://fao.zoom.us/rec/share/U52fD9GXwuOS66oQXnjrkd0K9e5z1mKJOXabBIcFk6qRNfmnIYwfFxe7iv-L2NbD.RIDsv8Nfu5D0KVos
- Day 4: https://fao.zoom.us/rec/share/xf0CgEnQpg2cpHr1nNngMNn57v2N83dLKvPSDdVcipYgGBIee2OD61RdUyMw4j9k.tdO4qBHiLuSm7DCe

3. **1-4 October 2024**
   (RNE and REU) Algeria, Egypt, Iraq, Mongolia, Syrian Arab Republic, UAE, Ukraine, Uzbekistan and Yemen

- Day 1: https://fao.zoom.us/rec/share/xIxm_hRHpcl1B5jwnfOP-nB-HR_XSFtx69tDlQguZc0VB2Vj0TjtWVRCbEC06P4F.qgI7WFyMLuUCDOCU
- Day 2: https://fao.zoom.us/rec/share/Bd4domwg_9Av134wfZC_K7OZlXboxre964UxA8P_3t5lKO2IHVb9eh-AiiLf0F4m.4aQMYFYOfhONsba1
- Day 3: https://fao.zoom.us/rec/share/4i3ejEgLfXyRVMybUFkDv0GSprKkZvs7vJNjjOV_Q_2aSBAI3RcftosoB_mk-75v.XLdLe4AmMuppUbyR
- Day 4: https://fao.zoom.us/rec/share/6C6TlaqIWjoL_gaMybhm-rd6RTBUsEVDpkxQDjMLKiNQVLf7xU7kCvqV5gg_rXLH.q8IxmifiWg2LpKsD

Arabic and Russian version of the recordings were attached at the email sent at the end of the training to all participants.

Annex 4: Background Material

All materials (in English and several in Arabic, French, Russian and Spanish) have been shared before and after the Virtual Trainings through links/mail attachments/WeTransfer. The materials shared included:

- Final versions of presentations that were presented during the four days;
- Excel file with the exercises for the calculation of the 11 sub-indicators;
- Stocktaking Excel file;
- SDG 2.4.1 survey questionnaire;
- "Certificate of attendance" for all the participants that attended all 4 days sessions of the training;
- Relevant background documents that were discussed and referred to during the training (methodological note, sampling guidance, guidelines on data analysis, enumerators manual, etc.). (Please note these materials can be accessed also by clicking here)
- Quizzes that we administered during the four days training along with the solutions, if you wish to practice;
- Photo taken during the fourth day;
- SDG 2.4.1 communication brochure;
- STATCAN methodology to calculate the Net Farm Income;
- WHO Pesticides Classification 2019;
- ISCO 2008;
- FIES guidance: intended meanings of the questions and specific terms;
- Bangladesh test report and the STATA tool for the calculation of the 11 sub-indicators. Please note that the attached STATA script is fully harmonized with the latest methodology and survey questionnaire. This means that the attached STATA tool can be used for the analysis of data that will be collected as it fully encompasses all the variables that will be captured through the survey module.

  Detailed background on SDG 2.4.1 can be found here (Arabic), here (English), here (French), here (Russian) and here (Spanish);

Moreover:

- Cost of Production Handbook published by Global Strategy to improve Agricultural and Rural Statistics (GSARS). Additional resources published by GSARS i.e. guidelines, technical reports and working papers on a range of topics related to agriculture and rural statistics can be found here;
- FIES webpage;
- FIES tool and manual to analyze data can be found here;
- World Programme for the Census of Agriculture (WCA) methodology can be found here;

Annex 5: Countries Action Plans

TRINIDAD & TOBAGO

SDG 2.4.1 WORK TO BE DONE

Prepare a two to three pages action plan for implementation of and reporting on 2.4.1 (due date: 25 July 2024):

A) Which sub-indicators can your country report immediately?

Theme 1 – Land Productivity. Sub-Indicator #1.

Component Variable #1 – Data Item #1
Component Variable #2 – Data Item #2
Component Variable #3 – Data Item #3 (crops and 2 selected fruits and 2 other items)

B) Identify and highlight the constraints/issues that inhibit your country to report on the entire dashboard of SDG 2.4.1.

a) There is a need to do an agriculture census to get an up-to-date frame for crops and livestock. The last classical agriculture census for Trinidad & Tobago was 2004.

b) In lieu of this, a listing of agriculture households engaged in own account agriculture can be generated from an updated Population & Housing Census. The last PHC was 2011. I am not sure when the next PHC would be done.

c) Up to date frames would facilitate better survey design as well as estimation methods for many variables that are to be collected for SDG 2.4.1.

d) Inter censual agriculture questionnaire would need to be updated to collect relevant material for SDG 2.4.1 that can be reported on an annual basis.

C) What action will be taken and by when by your country to overcome these constraints and issues to be able to collect data on SDG 2.4.1 and report it to FAO?

FAO Technical Co-operation Programme: TCP/TRI/3901 (D)

Title: Promoting Agricultural Innovative practices amongst youth and evidence based agricultural policy.
Government Counterpart: Ministry of Agriculture, Lands and Fisheries – Trinidad & Tobago

Start date: 1st Oct 2023 End Date: 30th November 2024 Budget $200 000 US

In Trinidad & Tobago, the production of agriculture statistics is shared by 2 government agencies:

Ministry of Agriculture, Lands & Fisheries – Forestry and Fishery Statistics
Ministry of Planning & Development / Central Statistical Office – Crop and Livestock Statistics.

The TCP above is sub divided into 4 components:

1 for Ministry of Agriculture
3 for the Central Statistical Office – Agriculture Statistics Division.

The 3 components applicable for the CSO – Agriculture Division are;

i) Redesign of Food Crop Survey.
ii) Analysis of the FIES data collected from the HBS/SLC Feb 2023 – Feb 2024.
iii) Questionnaire design and tabulation plan for the next Agriculture Census.

At present a) & b) above are being operationalized.

The retired food crop consultant from STATSCAN has recommended a new agriculture questionnaire designed along the AGRIS guidelines. Stakeholder meetings were held in May 2024. Request for feedback was solicited and **a draft Agriculture questionnaire** was prepared.

It is based on the following:

A) Entire Agris Core Module – Pgs 54 to 95

B) Some Agris Economy Module – Part 2.1 + Part 2.2 + Part 2.4 + Part 2.5 + Part 2.9 + Part 3.1 + Part 3.2 + Part 3.3 + Part 3.5 . Pgs 129 – 134

C) Some Agris Labour Module – Part 2.1 + Part 2.2 + Part 3.1 + Part 3.4 + Part 4.1. Pgs 187 - 194

This draft questionnaire needs to be tested on the field with tablets and the results processed in house according to specific tabulation plans. It may take up to one year before a final agriculture questionnaire will be ready for periodic surveys for Trinidad & Tobago.

This AGRIS module facilitates the introduction of questions relevant to SDG 2.4.1. It is therefore important for this to be in place FIRST before the entire SDG 2.4.1 production process can be implemented.

Other issues affecting the computation of SDG 2.4.1

As indicated above, simultaneously activities need to be undertaken by the country, Trinidad & Tobago to improve its agriculture statistics compilation and estimation processes for various variables that are collected under 2.4.1. Some important indicators NOT collected now include:

a) Farm income for apiculture and aquaculture
b) Soil degradation
c) Management of Fertilizers & Pesticides
d) Wage rates in Agriculture

Once Trinidad & Tobago begins data collection and analysis using the Agris module, It could in the future include other items as indicated in the SDG 2.4.1 survey module that was shared in the training with the SDG 2.4.1 team from 2nd – 5th July 2024.

END

D. While reviewing the presentations, pay particular attention to the presentations where we need your feedback:

- Day_3_Session_3_FAO SDG 2.4.1 data collection questionnaire – **slides 8**, kindly let us know if the focal points are still valid or have been changed

The cover page on the stocktaking file has the **focal point for SDG 2.4.1 for Trinidad & Tobago.**

E. Day_3_Session_4_Data reporting to FAO_FAOSTAT - slides 6 to 9 and 12 to 14,

Kindly coordinate with the concerned officials and relevant institutions and let us know if the focal points are still valid or have been changed, and if your country didn't report data in the last 3 years, then please also the underlying reason for this situation so that we can discuss and resolve the issue

Slide 6 – Land Use Questionnaire

This refers to Section 2 of the SDG 2.4.1 Module questionnaire. It comprises 4 questions.

The correct focal agency would be the CSO – Agriculture Statistics Division. However, these questions were never asked in our previous inter censual agriculture questionnaires. Information does not exist to report to FAO on these 4 questions.

Slide 7 – Fertilizer Use Questionnaire

This refers to Section B of the SDG 2.4.1 Module questionnaire. It comprises 4 questions. These are B6, B7, B8 and B9.

The correct focal agency would be the CSO – Agriculture Statistics Division, not the Ministry of Agriculture, Lands and Fisheries. The latter reports on domestic production of fertilizers. Some of these are exported, not all is locally used.

However, these questions are never asked in our inter censual agriculture questionnaires. Information does not exist to report to FAO on these 4 questions from CSO Agriculture Division.

Slide 8 – Pesticides Use Questionnaire

This refers to Section B of the SDG 2.4.1 Module questionnaire. It comprises 5 questions. These are B10, B11, B12, B13 and B14.

The correct focal agency would be the CSO – Agriculture Statistics Division, not the Ministry of Agriculture, Lands and Fisheries. The latter reports on domestic production of pesticides.

However, these questions are never asked in our inter censual agriculture questionnaires. Information does not exist to report to FAO on these 4 questions from CSO Agriculture Division.

Slide 9 - Production Questionnaire – Crops & Livestock

The correct focal agency is the CSO – Agriculture Statistics Division. This is completed and submitted on a yearly basis.

Future Plans

As indicated above, to get the comprehensive data required for SDG 2.4.1, depends on CSO TTO implementing the Agris module for agriculture statistics. This can be done within the next 2 years. After, the SDG module 2.4.1 list of questions can be added to get additional data sets. Hopefully within the next 5 years, we would also have an updated our list frame for both crops and livestocks to enable better imputation and estimation.

ZIMBABWE

ACTION PLAN FOR ZIMBABWE ON SDG 2.4.1

Background

Zimbabwe conducts an annual Agriculture survey across all the rural provinces. This is a household-based survey which focuses mainly on crop and livestock production. The survey is conducted 2 times within the agricultural season. The first round is conducted in February/March to collect data on area planted and estimating production. The second round is conducted in October to collect data on livestock population, post-harvest, crop and livestock. However, the survey is limited in terms of collecting variables required for the compilation of SDG 2.4.1.

This action plan presents the proposed approach to widen the scope of the survey to include variables required for the compilation of SDG 2.4.1

Methodology on data collection

The primary data collection tools to be used in data collection would be CAPI tablets installed with CSPro system. Data cleaning and analysis will be done using SPSS, STATA and Microsoft Excel. Training for enumerators would be done at district level. Data collection will be conducted in the rural provinces and among the eight agricultural sectors, Data analysis and report writing will be done at national level.

Sampling

Multi stage-sampling techniques will be employed using the ZIMSTAT 2022 master sampling frame to ensure 95% confidence level of statistical representativeness at district, provincial and national level. The final stage involves the systematic random sampling of households from each Enumeration Area.

Capacity strengths

The Department has 6 statisticians available for agriculture data analysis. IT Department assists in the development of CAPI system. They are, Provincial Managers, Statisticians and enumerators who are strategically stationed in the rural provinces, to coordinate data collection and quality assurance during field fieldwork.

Challenges

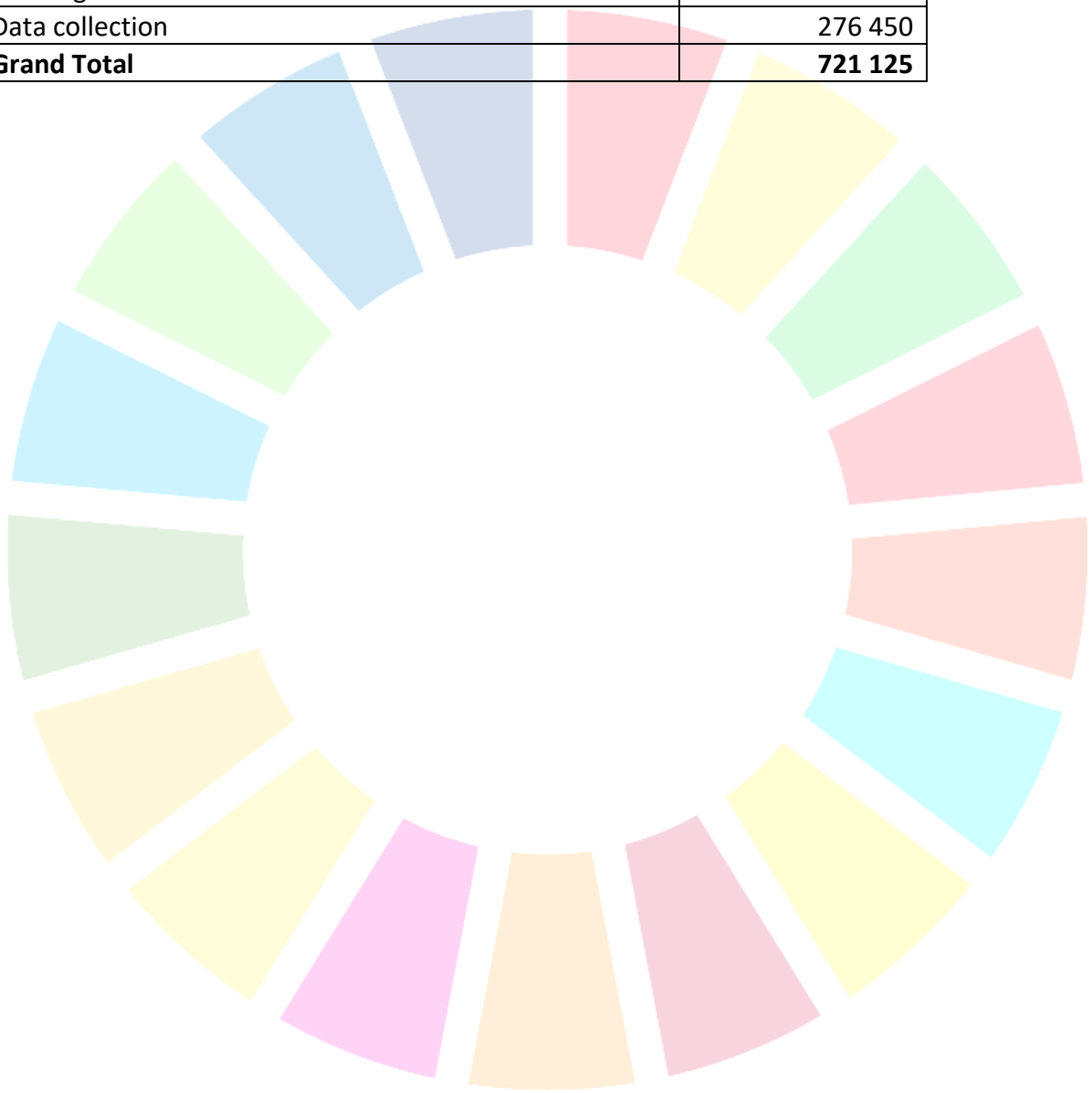
There may be funding challenges to implement this survey for the required data on SDG 2.4.1.

Recommendations

Having established a data gap in the compilation of SDG 2.4.1 indicators, a stand-alone survey should be conducted. For the country to fully report on all the 11 sub indicators of the Sustainable Development Goal 2.4.1, a funding of **US$ 721 125** and technical support are needed as per the attached budget below.

Budget

Item	Total US $
Pilot survey data collection	34 425
Listing of households and sampling	239 250
Training of enumerators	171 000
Data collection	276 450
Grand Total	**721 125**



LESOTHO

Action Plan for Implementation of and Reporting on SDG Indicator 2.4.1

Background

The Bureau of Statistics (BOS) was established in 1965 and mandated by the Government of Lesotho through the Statistic Act of 2001 to be the principal data collecting, processing, analyzing and dissemination agency. Bureau of statistics is a department in the Ministry of Finance and Development Planning. Agriculture statistics is handled by the Agriculture and Food Security Division. Data regularly published includes data on crop and livestock production collected through annual agricultural production survey from rural households. Data on horticulture statistics is collected through the horticulture production survey (a non-household annual survey) from smallholder and commercial farmers. Bos is the main data collection institution for Lesotho. The Ministry of Agriculture and Food Security is mostly involved in implementation of policies with minimal data collection.

Bos is currently collecting data through household annual production survey with main focus on production. The Bureau is not able to meet all data demands and in is the process to improve the annual production survey questionnaire to cover some gaps. This modification is planned for the 2025/2026 Agricultural year. However, due to lack of financial resources and technical know how, it is not easy. Owing to lack of tablets for data collection, BOS is still using Pen and Paper Interview (PAPI) resulting in late dissemination. Furthermore, training in Computer Assisted Personal Interviewing (CAPI) is necessary to facilitate Agriculture Statisticians to design own applications for data collection. The division currently depend on ICT Division for application design riddled with shortage of human and technical resources.

Economic Dimension

Farm output value per hectare data is collected on annual basis and is available. However, same data is available on paper and still has to be captured.

However, reporting can only start from 2025 due to human resource shortages and long processes attributed to PAPI. Most data on Net farm income and Risk mitigation mechanisms are not available and may be collected in the 2025/2026 Agricultural Production Survey. Another data is available on paper and still has to be captured.

Environmental Dimension

Generally, data on the environmental impact by farming practices on issues like fertilizer pollution or pesticide impact is not available. Bridging this gap will require a series of stakeholder workshops as well as technical and financial assistance. This exercise requires budgeting which is usually prone to cuts and due to its magnitude, data may be collected during the 2026/2027 Agricultural Production Survey.

Social Dimension

Data on Decent Employment and Food Insecurity Experience Scale (FIES) are available. FIES was collected through Labour Force Survey in 2019 and 2024. Data cleaning for 2024 is in progress.

However, reporting will be possible in 2025 due to above mentioned constraints. Data on Secure tenure rights to land is not available and may be collected during the 2025/2026 Agricultural Production Survey provided there are no budget cuts.

Generally, BOS may be able to report all indicators provided there is technical and financial assistance. Technical Assistance will be sought to incorporate the unavailable indicator questions into the annual production survey.