

## UN Committee of Experts on Food Security, Agricultural and Rural Statistics (UN-CEAG) – 2024

#### Task team on

Data quality standards and assessment framework for key food and agricultural data

**National Quality Assurance Framework (NQAF) for Agriculture Statistics** 

Checklist for self-Assessment
Statistics on Land Use for
Agriculture Purposes

#### Introduction

Sound food and agricultural statistics are essential to support the national and international development agenda, particularly regarding the achievement of the Sustainable Development Goals (SDGs). In this regard, the existence of data quality standards and National Quality Assessment Frameworks (NQAFs) for food and agricultural statistics is critical for ensuring that food and agricultural statistics are "fit for purpose".

The literature on data quality is quite vast; the most popular statistics QAF have many common features and typically show a "cascading" structure. Both, the UN NQAF (2019 edition) and the IMF DQAF (2012) agree on the fact that a QAF should look to the quality of the statistical institution, the quality of the statistical processes and the quality of the statistical product; in addition, the UN NQAF suggests the need to look at the overall national statistical system within which the different agencies producing and disseminating the national statistics operate.

The checklist is based on both the UN 2019 NQAF and the IMF DQAF; it encompasses three levels of analysis:

Level 2: Managing the institutional environment

Level 3: Managing statistical processes

Level 4: Managing statistical outputs

4.1 Relevance

4.2: Accuracy and reliability

4.3: Timeliness and punctuality

4.4: Accessibility and clarity

4.5: Coherence and comparability

Level 4 identifies the dimensions to consider in assessing the quality of the final food and agriculture statistical outputs disseminated by the national agency/agencies producing them. The listed dimensions are in line with the most popular approaches.

The checklist is specifically tailored to Land Use¹ agriculture² statistics and an investigation of the key characteristics of the statistical processes (level 3) and the statistical outputs (level 4). In most of the developing countries and part of developed countries, statistics on LU for agricultural purposes are part of the agriculture statistics and are the outcome of series of statistical processes involving sample surveys, administrative data and geo-spatial data. As the focus of the checklist is solely LU for agriculture purposes, the section of the checklist referring to the statistical process (level 3) for producing LU considers multiple sources. Typically, the main source (statistical process) is the one related to agriculture holdings that covers majority of the land. Other sources (e.g. crops and vegetables survey or household and large farms surveys) may be used as complementary (e.g. for common land used) as well as administrative data. It is worth noting that LU statistics can also be provided by a recent the Agriculture Census (it conducted not earlier than five years before the year of the evaluation) covering all agricultural units in the country (e.g. household and non-household sector).

The checklist is a self-assessment tool that should be compiled by the officer(s) in charge of the LU agriculture statistics in a system-wide collaborative effort, as relevant. The questions are organized in sections according to "if-then" scenarios; there are both informative questions and assessment questions. The objective of the checklist it to perform an assessment by joining the mechanisms underlying the 2019

<sup>&</sup>lt;sup>1</sup> Referred to total agricultural land of the country, i.e. covering total agricultural area individually or commonly used by agricultural holdings, but excluding other types of land cover used for agriculture

<sup>&</sup>lt;sup>2</sup> Agriculture is considered in strict sense thus excluding fishery and forestry sub-domains.

UN NQAF Manual and the IMF's DQAF. In particular, most of the assessment-type questions in the checklist allow scoring using just four possible answers:

full implementation => score=1 Partial implementation => score=0.5 Not implemented => score=0 NA => Not Applicable

Basically, the checklist several questions that can be used for scoring purposes (for details on the questions and the corresponding scoring mechanism see Annex 1) but the final number of filled-in scoring questions depends on the routing patterns and the specific situation. The elementary scores should be <u>averaged</u> by level of the UN NQAF using the mapping table reported in Annex 2. The scores for the process (level 3) can be further be disaggregated by its main phases (some of the elements of the GSBPM) while those related to the statistical outputs (level 4) can be disaggregated by quality dimensions.

Level_2 resources	aver.	score
Level_3 design	aver.	score
Level_3 data_collect	aver.	Score
Level_3 data_treat	aver.	Score
Level_3 data_process	aver.	score
Level_4.1 relevance	aver.	score
Level_4.2 accuracy&reliability	aver.	score
Level_4.3 timeliness&punctuality	aver.	score
Level_4.4 accessibility&clarity	aver.	score
Level_4.5 comparability&coherence	aver.	score
Level_4.6 metadata management	aver.	score

This disaggregation permits to compile a summary report in line with the Reports on the Observance of Standards and Codes (ROSC) prepared by the IMF DQAF that has the following structure (full template is in Annex 3):

Level	Item	Outcome*	Major identified weaknesses (only for outcome LNO and NO)
Level 2. Adequacy of	2.2 Assuring Adequacy of		
resources	resources in producing		
	statistics on Land Used		
	for Agriculture Purposes		
3. Statistical Process	3.1 Design		
	3.2 Data collection		
	3.3 Data treatment		
	3.4 Data processing		
4. Quality of the	4.1 Relevance		
statistical outputs	4.2 Accuracy and Reliability		
	4.3 Timeliness and Punctuality		
	4.4 Accessibility and Clarity		
	4.5 Comparability and Coherence		
	4.6 Management of metadata		

The "outcome" column should report the final rating, in line with the IMF practice that adopts a four-point rating scale:

- "O" = **Practice Observed**: the current practices generally meet internationally accepted best practices/guidelines without any significant deficiencies. This result is achieved when the average score achieved for the checklist's assessment questions pointing to the item are greater than 0.80
- "LO" = **Practice Largely Observed**: some departures from internationally accepted best practices/guidelines, but these are not seen as insufficient. This result is achieved when the average score achieved for the checklist's assessment questions pointing to the item are **greater than 0.50 and less or equal to 0.80**
- "LNO" = **Practice Largely Not Observed**: significant departures from internationally accepted best practices/guidelines which will need to take improvement actions. This result is achieved when the average score achieved for the checklist's assessment questions pointing to the item are **greater or equal than 0.20 and less or equal to 0.50**
- "NO" = **Practice Not Observed**: internationally accepted best practices/guidelines are not met.

  Urgent improvement actions need to be undertaken. This result is achieved when the average score achieved for the checklist's assessment questions pointing to the item are less than 0.20
- NA = **Not Applicable**: when some items/practices do not apply to a country's circumstances.

Note that the use of "LO" and "LNO" is intended to allow the assessor to make a subjective judgement regarding the degree or extent to which the practice is "partially" observed. Adopting a similar approach has value as many NSOs (and other national authorities) will be familiar with the ROSC assessment where a summary assessment by agency and dataset based on a four-part scale was followed by a separate section offering staff recommendations, where relevant.

# <u>Annex 1 – Rules for scoring the answers to assessment questions in the checklist on National statistics on Land Used for agricultural purposes</u>

#### **Section 1 - Assuring Adequacy of resources**

UN NQAF, Level B- Managing the institutional environment, Principle 9- Assuring adequacy of resources IMF DQAF. 0.2 Prerequisites for quality – Resources (0.2.1)

1.	In your Agency, are financial resources sufficient to implement the statistical work and development program(s) needed for producing [Land Use] statistics?  [single choice]  1.	1 -> Score 1 2 -> Score 0.5 3 -> Score 0
2.	In your Agency, are human resources sufficient to implement the statistical work and development program(s) needed for producing [Land Use] statistics?  [single choice] 4.   Yes, fully 5.  Yes, partially	1 -> Score 1 2 -> Score 0.5 3 -> Score 0
3.	In your Agency, are the computing IT and the other technological resources sufficient to implement the statistical work and development program(s) needed for producing [Land Use] statistics?  [single choice]  1.	1 -> Score 1 2 -> Score 0.5 3 -> Score 0

#### Section 2 – The statistical Process

UN NQAF Level C - Managing statistical processes, Principle 10 - Assuring methodological soundness

UN NQAF Level C - Managing statistical processes, Principle 12 - Assuring appropriate statistical procedures

UN NQAF Level C - Managing statistical processes, Principle 13 - Managing the respondent burden

IMF DQAF 2. - Methodological Soundness

IMF DQAF 3.3 Statistical Techniques

4.	Do you have a statistical process (sample survey, administrative data, earth observation data, mixed sources, etc.) that ensures the production of Agricultural [Land Use] statistics?  [single choice]  1. □ Yes, on a regular basis  2. □ Yes, but not on a regular basis  3. □ No, please explain	1 -> Score 1 2 -> Score 0.5 3 -> = 0 OR Score to be decided according to the explanation
5.	If YES to question 4  Are the produced statistics on [Land Use] for agriculture purposes disseminated externally?  [single choice]  1.	1 -> Score 1 2 -> Score 0.5 3 -> Score 0

6.	If YES to question 4	
	How is the statistical process articulated?	
	[single choice]	
	1. ☐ Agriculture Census	
	2.   Tailored survey on [Land Use]	
	3.   Data on [Land Use] collected with AGRIS like survey <sup>3</sup>	
	4.   Data on [Land Use] collected in another general-purpose agriculture survey	
	5. ☐ Set of independent agriculture sample surveys	
	6. ☐ Exploitation of Administrative register/s	
	7.   Combination of survey and administrative register	
	8.   Exploitation of Earth observation data	
	9.   Combination of survey and earth observation data	
	10. ☐ Combination of survey, administrative and earth observation data	
	11. □ Other, please specify: [free text]	

<sup>3</sup> "Handbook on the Agricultural Integrated Survey – AGRIS" prepared by the Global Strategy to improve Agricultural and Rural Statistics (published in 2017)

#### **Section 2.1 – Agriculture Census**

This sub-section should be filled ONLY IF the statistical process needed for producing [Land Use] statistics for agriculture purposes involves data collected in the Agriculture Census

7.	Is Agriculture Census carried out on a regular basis (e.g. every 5 or 10 years)? [single choice]	
	1.	1 -> Score 1
	2. □ No	2 -> Score 0
8.	What is the reference year of the data of the latest Agriculture census that are used for producing [Land use] statistics?  [indicate year]   _ _ _	
9.	Which of the following detailed variables concerning the Land Use are collected in the Agriculture Census?  (FAO WCA 2020 recommends nine basic land use classes: land under temporary crops; land under temporary meadows and pastures; land temporarily fallow; land under permanent crops; land under permanent meadows and pastures; land under farm buildings and farmyards; forest and other wooded land; area used for aquaculture (including inland and coastal waters if part of the holding); other area not elsewhere classified)  [multiple choice] 1.	
	,	

10.	Is the Agriculture Census collecting data that support compiling SDG indicator 2.3.1  (SDG Indicator 2.3.1 - Volume of production per labour unit by classes of farming / pastoral / forestry enterprise size <a href="https://www.fao.org/sustainable-development-goals/indicators/231/en/">https://www.fao.org/sustainable-development-goals/indicators/231/en/</a> )  [single choice]  1. □ Yes, fully 2. □ Yes, partially 3. □ No 4. □ Not applicable (e.g. the needed data are collected in a different survey, etc.)	1 -> Score 1 2 -> Score 0.5 3 -> Score 0 4 -> NO score
11.	Is the Agriculture Census collecting data that support compiling SDG indicator 2.4.1  (SDG Indicator 2.4.1 - Proportion of agricultural area under productive and sustainable agriculture <a href="https://www.fao.org/sustainable-development-goals/indicators/241/en/">https://www.fao.org/sustainable-development-goals/indicators/241/en/</a> )  [single choice]  1. □ Yes, fully 2. □ Yes, partially 3. □ No 4. □ Not applicable (e.g. the needed data are collected in a different survey, etc.)	1 -> Score 1 2 -> Score 0.5 3 -> Score 0 4 -> NO score
12.	How was the latest Agriculture census carried out?  (guidance on agricultural censuses in the period between 2016 and 2025 is provided in two FAO 2020 manuals: <a href="https://www.fao.org/3/a-i4913e.pdf">https://www.fao.org/3/a-i4913e.pdf</a> ; <a href="https://www.fao.org/3/CA1963EN/ca1963en.pdf">https://www.fao.org/3/CA1963EN/ca1963en.pdf</a> ;  [single choice]  1. □ By full enumeration of all the agriculture holdings (including household, establishment, and any other group holdings)  2. □ We fully enumerate only the agriculture holdings in the household sector  3. □ It was based on a sample of holdings  4. □ It was based on a modular approach with key information collected on all the holdings and additional data collected on a sample basis	

13.	IF the Agriculture census involves sampling (answer 3 or 4 to previous question) Is probabilistic sampling adopted? [single choice]  1. □ Yes 2. □ No	1 -> Score 1 2 -> Score 0
14.	IF "Yes" to previous question (probabilistic sampling) Is the sample designed in accordance with well-known standards? (typically involving an efficient stratification and selection on two or more stages)? [single choice] 1. □ Yes, fully 2. □ Yes, partially 3. □ No	1 -> Score 1 2 -> Score 0.5 3 -> Score 0
15.	IF probabilistic sampling Is the sample designed to give estimates of [Land Use] statistics with a fixed maximum sampling error?  [single choice]  1. □ Yes, for both national and sub-national [Land Use] statistics  2. □ Yes, but only for national [Land Use] statistics  3. □ No	1 -> Score 1 2 -> Score 0.5 3 -> Score 0
16.	IF Agriculture Census is based on sampling (probabilistic or nonprobabilistic) In developing and maintaining a sampling frame, are you following the suggestions of the FAO Handbook on master sampling frame? <a href="http://www.fao.org/3/ca6398en/ca6398en.pdf">http://www.fao.org/3/ca6398en/ca6398en.pdf</a> [single choice]  1. □ Yes, completely 2. □ Yes, partially 3. □ No, please explain	1 -> Score 1 2 -> Score 0.5 3 -> Score 0

17.	IF Agriculture Census is based on sampling (probabilistic or nonprobabilistic)  Have you assessed extent of coverage errors in the sampling frame used for selecting the sample?  [single choice]  1. □ Yes, considering all the potential errors (under-coverage, over-coverage, duplicated records, missing data, etc)  2. □ Yes, but only for few important errors. Please specify  3. □ No	1 -> Score 1 2 -> Score 0.5 3 -> Score 0
18.	IF Agriculture Census is based on sampling (probabilistic or nonprobabilistic)  Is the work done on sampling frame and the used sampling design documented?  [single choice]  1. □ Yes, full documentation is available  2. □ Yes, partial documentation is available  3. □ No	1 -> Score 1 2 -> Score 0.5 3 -> Score 0

#### Section 2.2 – Sample survey(s)

These sections should be filled ONLY IF the statistical process needed for producing [Land Use] statistics for agriculture purposes involves data collected in

- a) single survey (tailored survey; AGRIS like survey; general-purpose agriculture survey; answers 2-4, 7 and 9-10 to question 6).
- b) a series of independent agriculture sample surveys (answer 5 to question 6) then fill-in this rection by referring to the "main" survey.

#### Section 2.2.1 – The "main" sample survey

These sections should be filled with information related to the single sample survey (case a) or to the "main" survey (most relevant survey for the production of [Land Use] statistics for agriculture purposes

19.	Please indicate the type of "main" survey [single choice]  1. □ Regular survey on an annual or multi-year basis  2. □ Ad hock survey carried out not regularly  3. □ Other, please explain.	1 -> Score 1 2 -> Score 0.5 3 -> Score to be decided
20.	Please indicate the reference year of the latest survey [single choice]  1.  _ _ _	

## Section 2.2.1.1 – The main variables observed in the "main" sample survey

GSBPM 2.2 – Design Variable Description

21.	Which is the survey statistical units?	
	[single choice]	
	1. ☐ Agricultural holding	
	2. $\square$ Household	
	3. □ Parcel	
	4. □ Plot	
	5. ☐ Area segment (in case of area frame)	
	6. □ Other	
22.	IF already implementing or planning to implement the AGRIS	
22.	Is the definition of statistical units coherent with the AGRIS recommendations?	
	(Section 4.1.1.4. of the AGRIS Manual)	
	[single choice]	1 -> Score 1
	1. ☐ Yes, fully	2 -> Score 0.5
	2. ☐ Yes, partially	3 -> Score 0 OR to be decided
	3.   No, please explain	according to the explanation
	3. Two, piease explain	according to the explanation
23.	Which of the following detailed variables concerning the Land Use are collected?	
	[multiple choice]	
	1. ☐ Temporary crops under greenhouses or high shelters	
	2.   ☐ Temporary crops outdoors or under low shelters	
	3.   ☐ Temporary fallow	
	4. $\square$ Temporary meadows and pastures	
	5.   Kitchen gardens and backyard	
	6. □ Permanent crops under greenhouses or high shelters	
	7.   □ Permanent crops outdoors or under low shelters	
	8. $\square$ Permanent meadows and pastures	
	9. $\square$ Farm buildings and farm yards	
	10. $\square$ Forest and other wooded land	
i   	11. $\square$ Aquaculture on the holding	
	12. $\square$ Other land (land not in use, rocks, wetlands, etc.	

24.	Is the survey collecting data that support compiling SDG indicator 2.3.1	
	(SDG Indicator 2.3.1 - Volume of production per labour unit by classes of farming / pastoral /	
	forestry enterprise size <a href="https://www.fao.org/sustainable-development-goals/indicators/231/en/">https://www.fao.org/sustainable-development-goals/indicators/231/en/</a> )	
	[single choice]	1 -> Score 1
	1. ☐ Yes, fully	2 -> Score 0.5
	2. ☐ Yes, partially	3 -> Score 0
	<b>3.</b> □ No	4 -> NO score
	4.   Not applicable (e.g. the needed data are collected in a different survey, etc.)	
25.	Is the survey collecting data that support compiling SDG indicator 2.4.1	
	(SDG Indicator 2.4.1 - Proportion of agricultural area under productive and sustainable	
	agriculture <a href="https://www.fao.org/sustainable-development-goals/indicators/241/en/">https://www.fao.org/sustainable-development-goals/indicators/241/en/</a> )	
	[single choice]	1 -> Score 1
	5. ☐ Yes, fully	2 -> Score 0.5
	6. ☐ Yes, partially	3 -> Score 0
	7. □ No	4 -> NO score
	8.   Not applicable (e.g. the needed data are collected in a different survey, etc.)	

## Section 2.2.1.2 – The sample and the sampling frame of the "main" survey

GSBPM 2.4 Design Frame and Sample GSBPM 4.1 create Frame and Select Sample

26.	Is probabilistic sampling adopted?	
	[single choice]	
	3. □ Yes	1 -> Score 1
	4. □ No	2 -> Score 0
27.	IF "Yes" to previous question (probabilistic sampling) Is the sample designed in accordance with well-known standards? (typically sample on household adopts a stratified two stage sampling design while a sample of agriculture holdings is selected using a stratified one-stage sampling design; see e.g. Chapter 5 in the AGRIS Manual)? [single choice] 1. □ Yes, fully 2. □ Yes, partially 3. □ No	1 -> Score 1 2 -> Score 0.5 3 -> Score 0
28.	IF probabilistic sampling Is the sample designed to give <u>national</u> estimates of [Land Use] statistics with a fixed maximum sampling error?  [single choice]  1. □ Yes, for the most important national [Land Use] statistics  2. □ Yes, but only for few important national [Land Use] statistics  3. □ No	1 -> Score 1 2 -> Score 0.5 3 -> Score 0
29.	IF probabilistic sampling Is the sample designed to provide <u>sub-national</u> (district/province level) estimates of [Land Use] statistics with a fixed maximum sampling error?  [single choice]  1. □ Yes, for the most important [Land Use] product  2. □ Yes, but only for few important [Land Use] product, depending on the region  3. □ No	1 -> Score 1 2 -> Score 0.5 3 -> Score 0

30.	For both probabilistic and non-probabilistic samples (if non-probabilistic samples are selected from a sampling frame; e.g. cut-off sampling)  In developing and maintaining a sampling frame, are you following the suggestions of the FAO Handbook on master sampling frame? <a href="http://www.fao.org/3/ca6398en/ca6398en.pdf">http://www.fao.org/3/ca6398en/ca6398en.pdf</a> [single choice]  1.	1 -> Score 1 2 -> Score 0.5 3 -> Score 0 OR to be decided according to the explanation
31.	For both probabilistic and non-probabilistic samples (if non-probabilistic samples are selected from a sampling frame; e.g. cut-off sampling)  Which are the main problems in the sampling frame?  [multiple choice]  1.  Under-coverage (not all the units are included in the frame)  2.  Over-coverage (part of the units included in the frame should not be there)  3.  Outdated information  4.  Missing data/frame variables  5.  Other, please explain	
32.	For both probabilistic and nonprobabilistic samples (if nonprobabilistic samples are selected from a sampling frame; e.g. cut-off sampling)  Have you assessed the extent of under-coverage in the sampling frame?  [single choice]  1. □ No, as it can be considered negligible  2. □ No, it is NOT negligible but we were not able to measure its extent  3. □ Yes, and it is negligible (below 10%)  4. □ Yes, and it is NOT negligible. Please specify:	3 OR 4 -> Score 1 1 -> Score 0.5 2 -> Score 0

33.	For both probabilistic and nonprobabilistic samples (if nonprobabilistic samplea are selected from a sampling frame; e.g. cut-off sampling)  Have you assessed the extent of over-coverage in the sampling frame?  [single choice]  1. □ No, as it can be considered negligible  2. □ No, it is NOT negligible but we were not able to measure its extent  3. □ Yes, and it is negligible (below 10%)  4. □ Yes, and it is NOT negligible	3 OR 4 -> Score 1 1 -> Score 0.5 2 -> Score 0
34.	For both probabilistic and nonprobabilistic samples (if nonprobabilistic samples are selected from a sampling frame; e.g. cut-off sampling)  Does the sampling frame include outdated information?  [multiple choice]  1.	

#### Section 2.2.2 – "Secondary" sample survey

If the statistical data needed for producing [Land Use] statistics involves a series of independent agriculture sample surveys (answer 5 to question 6) then fill-in this section by referring to the survey, other than the main one, that is considered relevant for producing [Land Use] statistics and that is selected from a sampling frame different from that of the main survey

35.	<ul> <li>Which are the main reasons for having different sampling frames?</li> <li>[single choice]</li> <li>1. □ Each frame refers to a different type of sample units (e.g. Agriculture households in one frame and commercial farms in the other)</li> <li>□</li> <li>2. □ The frames refer to the same sampling units but cover different subsets of the target population and cannot be integrated</li> <li>3. □ Other, please explain:</li> </ul>	
36.	Is the sample selected using a probabilistic mechanism? [single choice]  1. □ Yes  2. □ No	1 -> Score 1 2 -> Score 0
37.	IF "Yes" to previous question  Is the sample designed in accordance with the well-known standards?  (typically sample on household adopt a stratified two stage sampling design while a sample of agriculture holdings is selected using a stratified one-stage sampling design; see e.g. Chapter 5 in the AGRIS Manual)?  [single choice]  1. □ Yes, fully  2. □ Yes, partially  3. □ No	1 -> Score 1 2 -> Score 0.5 3 -> Score 0

38.	Is samples designed to provide estimates of [Land Use] statistics with a fixed maximum sampling error? [single choice]	
	□ Yes, for both national and sub-national estimates	1 -> Score 1
	2.   Yes, but only for national estimates	2 -> Score 0.5
	3. \( \sum \cong \cong \cong \)	3 -> Score 0
39.	Have you assessed the potential overlapping between the frame used to select this sample and	
	that used to select the sample for the survey described in the previous section ("main" survey)?	
	[single choice]	1 OR 2 -> Score 1
	1. $\square$ Yes, and it is negligible	3 -> NO score
	<b>2.</b> $\square$ Yes, and since it is non-negligible we adopted some corrections to compensate it	4 -> Score 0.5
	3. $\square$ No, because overlapping cannot exist	5 OR 6 -> Score 0
	4. ☐ No, because overlapping can exist but we believe it is negligible	
	5.   No, because overlapping can exist but we do not have methods to assess it	
	6. □ We don't know	
40.	Which are the main problems in the sampling frames?	
	[multiple choice]	
	1.   Undercoverage (not all the units are included in the frame)	
	<ul> <li>2. □ Overcoverage (part of the units included in the frame should not be there)</li> <li>3. □ Outdated information</li> </ul>	
	□ Outdated information     □ Missing data	
	5.  Other, please explain	
	5. 🗆 Other, piease explain	
41.	For both probabilistic and nonprobabilistic samples	
	Is the work done on sampling frame and the used sampling design documented?	
	[single choice]	1 -> Score 1
	1.   Yes, full documentation is available	2 -> Score 0.5
	2.   Yes, partial documentation is available	3 -> Score 0
	3. □ No	

#### 2.3 Data collection

GSBPM 2.1 Design Collection GSBPM 4. Collect

#### 2.3.1 Data collection in Survey/Census

To be filled when data needed for compiling Agriculture [Land Use] statistics are collected in the Agriculture Census or in one or more sample surveys

In case of different of surveys (Census and sample survey, series of sample surveys) please fill in the section referring to the <u>most relevant source of data for compiling required statistics</u>

42.	Is data collection designed to implement Computer Assisted Interview?  [single choice]  1. □ Yes, for all the units 2. □ Yes, but not for all the units 3. □ No	1 -> Score 1 2 -> Score 0.5 3 -> Score 0
43.	Is the survey questionnaire designed to facilitate the data collection and reduce the response burden on respondents?  (e.g. a well-designed skip pattern, well-written sentences easy to be understood, removal of unnecessary questions whose information does not contribute to dissemination, etc.)  [single choice]  1.	1 -> Score 1 2 -> Score 0.5 3 -> Score 0
44.	Is data collection carried out by interviewers?  (please refer to all types of interviewers, e.g. permanent interviewers that part of regional staff, interviewers used for the survey data collection that are staff in the extension services of the agency; completely independent interviewers hired and trained for the survey only)  [single choice]  1. □ Yes, for all the units 2. □ Yes, but only of a subset of units 3. □ No	1 -> Score 1 2 -> Score 0.5 3 -> Score 0

45.	IF "Yes" to the previous question Is on-field data collection organized to allow efficient work for interviewers and avoid excessive workload?  [single choice] 1. □ Yes, fully 2. □ Yes, partially 3. □ No	1 -> Score 1 2 -> Score 0.5 3 -> Score 0
46.	Do you have an automated monitoring system for data collection? [single choice]  1. □ Yes, it permits to monitor the data collection on a regular basis (daily or weekly)  2. □ Yes, but it does not permit to monitor the data collection on a regular basis  3. □ No	1 -> Score 1 2 -> Score 0.5 3 -> Score 0
47.	Did you test the data collection in advance? [single choice]  1. □ Yes, completely (questionnaire, organization of the on-field work, interviewing phase,)  2. □ Yes, partially (only some aspects). Please explain:  3. □ No	1 -> Score 1 2 -> Score 0.5 3 -> Score 0

#### **Section 2.3.2 Administrative Data sources**

To be filled IF the statistical process needed for producing [Land Use] statistics involves one or more <u>administrative data sources</u> (<u>question 6</u>, <u>answers 6</u>, <u>7</u>, <u>10</u>, <u>11</u>)

48.	Please indicate the types of administrative data sources?	
	[multiple choice]	
	1. 🗆 Cadastral data	
	2. 🗆 Farm register,	
	3.   Business register	
	4.   Subsidy register	
	5.   Organic farming register	
	6. ☐ List from extension services	
	7. 🗆 Customs	
	8.   Municipality services (typically for information on common land)	
	9. $\square$ Other, please specify	
49.	Do the data in the register(s) come along with adequate metadata?	
	(e.g. definition of variables, classification used, etc.)	
	[single choice]	1 -> Score 1
	1. □ Yes, fully	2 -> Score 0.5
	2. $\square$ Yes, partially	3 -> Score 0
	3. \( \sum \text{No} \)	
50.	Do you check whether the actual geographical coverage of the register(s) is in line with needs	
	related to compilation of Agriculture [Land Use] statistics?	
	[single choice]	1 -> Score 1
	1. □ Yes, fully	2 -> Score 0.5
	2. $\square$ Yes, partially	3 -> Score 0
	3. \( \superstandarrow{\text{No}}{\text{No}}	

51.	Do you check whether the register(s) includes all the needed variables for the production of Agriculture [Land Use] statistics?  [single choice]  1. □ Yes, check for the presence of all the needed variables  2. □ Yes, but we only check availability of the most relevant variables  3. □ No	1 -> Score 1 2 -> Score 0.5 3 -> Score 0
52.	Do you check whether the definitions of the needed registers variables are in line with those needed for statistical purposes?  [single choice]  1.	1 -> Score 1 2 -> Score 0.5 3 -> Score 0
53.	<ul> <li>3. □ No</li> <li>Do you know/check for the presence of missing values in the register variables needed for the compilation of Agriculture [Land Use] statistics?</li> <li>[single choice]</li> <li>1. □ Yes, and we calculate the fraction of missing value for each variable</li> <li>2. □ Yes, but we don't assess the fraction of missing values</li> <li>3. □ No</li> </ul>	1 -> Score 1 2 -> Score 0.5 3 -> Score 0
54.	Does the reference time of data in the register(s) data permit the production of timely and relevant of Agriculture [Land Use] statistics?  (in case of variables having different time references please refer to those most relevant for the productions of Land Use statistics)  [single choice]  1. □ Yes, fully  2. □ Yes, partially  3. □ No	1 -> Score 1 2 -> Score 0.5 3 -> Score 0

55.	Do you check whether the values of a needed register variable(s) are all referred to the same time reference (time instant or time period)?  [single choice]  1. □ Yes, fully  2. □ Yes, partially  3. □ No	1 -> Score 1 2 -> Score 0.5 3 -> Score 0
56.	Do you assess whether acquisition, treatment and processing of the administrative register(s) is worth all the efforts done (i.e. increases significantly the quality of the statistics produced at the end of the whole process)?  [single choice]  1. □ Yes, in every replication of the whole process 2. □ Yes, but only in the first occasion 3. □ No	1 -> Score 1 2 -> Score 0.5 3 -> Score 0

#### **II.2.4 Data Integration**

GSBPM 5.1 Integrate the survey data and administrative registers or different registers

To be filled IF the statistical process needed for producing [Land Use] statistics involves integration of at microdata level of different data sources (question 6, options: 5, 7, 9, 10, 11)

57.	<ul> <li>What type of data integration process is used?</li> <li>[single choice]</li> <li>1. □ Exact matching or merging (linkage based on <u>units' identifiers</u> expected to be error-free)</li> <li>2. □ Record linkage (linkage based on a set of <u>key variables</u> that permit to uniquely identify a unit like name, surname, gender, date of birth, address, etc.; or when units' identifier are not error-free)</li> <li>3. □ Mixture of the above</li> <li>4. □ Other, please specify</li> </ul>	
58.	<ul> <li>IF "Record linkage" (previous question =2 or =3)</li> <li>What type of record linkage is applied?</li> <li>[single choice]</li> <li>1. □ Deterministic record linkage (linkage is based on a set of rules that permit to establish whether there is a match or not)</li> <li>2. □ Probabilistic record linkage (it is estimated the probability or having a match using ad statistical models)</li> <li>3. □ Mix of probabilistic and deterministic</li> </ul>	
59.	Do you check units' identifiers/key variables for the presence of errors or missing values before the linkage phase? [single choice]  1. □ Yes, extensively  2. □ Yes, but not extensively  3. □ No	1 -> Score 1 2 -> Score 0.5 3 -> Score 0

60.	Before data integration do you check whether the data sources include duplicated records?  [single choice]  1. □ Yes  2. □ No, because data providers ensured that the data sources do not have duplicated records  3. □ No, because we believe that the problem of duplicated records is negligible	1 -> Score 1 2 -> Score 0.5 3 -> Score 0
61.	<ul> <li>Do you assess the data integration phase?</li> <li>[single choice]</li> <li>1. ☐ Yes, extensively (by calculating also an estimate of linkage errors like incorrect matches or wrongly non-matched records)</li> <li>2. ☐ Yes, but not extensively (without calculating an estimate of linkage errors)</li> <li>3. ☐ No</li> </ul>	1 -> Score 1 2 -> Score 0.5 3 -> Score 0
62.	Is data integration process documented?  [single choice]  1. □ Yes, fully  2. □ Yes, partially  3. □ No	1 -> Score 1 2 -> Score 0.5 3 -> Score 0

#### 2.5 Data conversion

GSBPM 5.2 Classify and code

To be filled IF the statistical process needed for producing [Land Use] statistics involves a phase for recoding or convert the classification used for some variables (typically those coming from external sources like administrative registers whose definitions/classification may not be coherent with used for statistical purposes)

Note: this Section refers to all the data sources (Census, sample surveys, administrative data) used for the compilation of Agriculture [Land Use] Statistics

63.	How is conversion done? [single choice]	
	1. Automatic coding	1 -> Score 1
	2. Interactive coding (mix of automatic and clerical coding)	2 -> Score 0.5
	3. Clerical coding	3 -> Score 0
64.	Were the conversion methods tested before their use? [single choice]	
	1. Yes	1 -> Score 1
	2. No	2 -> Score 0
65.	Do you check and assess the data conversion phase?	
	[single choice]	
	1. ☐ Yes, extensively	1 -> Score 1
	2. $\square$ Yes, but not extensively	2 -> Score 0.5
	3. □ No	3 -> Score 0
66.	Is the classify and code appropriately documented? [single choice]	
	1. Yes, all conversion tables and other supporting documentation are available	1 -> Score 1
	2. Yes, but conversion tables and supporting documentation are partially available	2 -> Score 0.5
	3. No	3 -> Score 0

#### 2.6 Data editing and imputation

GSBPM 5.3 Review and validate GSBPM 5.3 Edit and impute

Note: this Section refers to all the data sources (Census, sample surveys, administrative data) used for the compilation of Agriculture [Land Use] Statistics

67.	Do you check collected data for errors (missing values, outliers, incoherent values, etc.)? [single choice]  1. □ Yes, for almost all the variables in the questionnaire  2. □ Yes, only for the most important variables  3. □ No	1 -> Score 1 2 -> Score 0.5 3 -> Score 0
68.	IF "yes" to previous question  How do you detect errors in [Land Use] data?  [single choice]  1. □ In a fully automatic way and part of the checks are already in the electronic questionnaire  2. □ In a fully automatic way but after the data collection  3. □ partly in automatic way and partly through manual checks (clerical revision)  4. □ only through manual checks (clerical revision)  5. □ Other, please explain	1 OR 2 -> Score 1 3 -> Score 0.5 4 -> Score 0 5 -> score to be decided according to the explanation
69.	Do you impute missing values? [single choice]  1. □ Yes, for almost all the variables in the questionnaire  2. □ Yes, only for the most important variables  3. □ No  4. □ Not applicable (missing values are not present)	1 -> Score 1 2 -> Score 0.5 3 -> Score 0 4 -> NO score

70.	<ul> <li>IF "yes" to previous question</li> <li>How do you impute missing values?</li> <li>[single choice]</li> <li>1. □ In an automatic way by applying well-known statistical methods (e.g. nearest neighbour donor imputation, regression imputation, etc.)</li> <li>2. □ A mixed approach involving both imputation using statistical methods and manual imputation carried out by clerks being subject matter experts</li> <li>3. □ Only manual imputation carried out by clerks being subject matter experts</li> </ul>	1 -> Score 1 2 -> Score 0.5 3 -> Score 0
71.	Are the data treatment procedures (detection of errors, outlier and imputation) documented?  [single choice]  1. □ Yes, fully  2. □ Yes, partially  3. □ No	1 -> Score 1 2 -> Score 0.5 3 -> Score 0

#### 2.7 Survey Data Weighting

GSBPM 5.6 Calculate sampling weights

Note: this Section refers only to eventual data from probabilistic sample survey used for the compilation of Agriculture [Land Use] Statistics

72.	Do you modify the initial sample weights for compensating for unit nonresponse or for aligning survey estimates with known population totals (weights calibration or post-stratification)?  [single choice]  1. □ Yes  2. □ No  3. □ Not applicable (sample survey not adopted or nonprobability sampling is considered)	1 -> Score 1 2 -> Score 0 3 -> NO Score
73.	IF "Yes" to previous question Is the re-weighting procedure documented?  [single choice]  1. □ Yes, fully  2. □ Yes, partially  3. □ No	1 -> Score 1 2 -> Score 0.5 3 -> Score 0

#### 2.8 Data processing and data backup

GSBPM 5.7 Calculate aggregates GSBPM 5.7 Finalize data files

Note: this Section refers to all the data sources (Census, sample surveys, administrative data) used for the compilation of Agriculture [Land Use] Statistics

,	,	.,
74.	Do you check the final data-processing step (aimed at calculating the final [Land Use] estimates) for potential errors?	
	[single choice]	1 -> Score 1
	1. $\square$ Yes, the software codes have been extensively tested and checked in advance	2 -> Score 0.5
	2. $\square$ yes, only if the software code returns an error	3 -> Score 0
	3. No	
75.	Are the final estimates compared with other estimates before their disseminations?	
	[single choice]	
i   	1. □ Yes	1 -> Score 1
<u> </u>	2. No	2 -> Score 0
 	3.   Not applicable	3 -> NO Score
76.	IF "Yes" to previous question	
	In case of discrepancies to do you modify the estimates so to ensure coherence with other	
	estimates	
	[single choice]	1 -> Score 1
	1. $\square$ Yes, all the estimates	2 -> Score 0.5
	2. $\square$ Yes, some of them	3 -> Score 0
	3. No	
77.	Have you implemented an IT procedure for doing backup of the data?	
	[single choice]	
	1. $\square$ Yes, regularly at the end of the main phase of the statistical process	1 -> Score 1
	2. $\square$ Yes, but not on a regular basis	2 -> Score 0.5
	3. No	3 -> Score 0

## 3 Managing [Land Use] Statistical Outputs Quality of the Agricultural [Land Use] statistics

#### 3.1 Relevance

UN NQAF Level D – Managing statistical outputs, Principle 14 Assuring relevance IMF DQAF. 0.3 Prerequisites for quality – Relevance (0.3.1)

78.	Do the currently disseminated [Land Use] statistics satisfy the main needs of both National and international users?  [single choice]  1. □ Yes, fully  2. □ Yes, partially  3. □ No  4. □ Don't know	1 -> Score 1 2 -> Score 0.5 3 OR 4 -> Score 0
79.	Do the currently disseminated [Land Use] statistics satisfy the main needs of both National and international users in terms of disaggregation (territorial, by type of farms, etc.)?  [single choice]  1. □ Yes, fully  2. □ Yes, partially  3. □ No  4. □ Don't know	1 -> Score 1 2 -> Score 0.5 3 OR 4 -> Score 0
80.	Do you have a mechanism (survey, committee) to monitor user's satisfaction with [Land Use] statistics and understanding also their unmet needs?  [single choice]  1. □ Yes, in a regular way  2. □ Yes, but not regularly  3. □ No	1 -> Score 1 2 -> Score 0.5 3 -> Score 0

81.	IF "Yes" to previous  Are the unmet needs prioritized and taken into account to improve the statistical production process of [Land Use] statistics and the corresponding quality?	
	[single choice]	1 -> Score 1
	1. ☐ Yes, in a regular way	2 -> Score 0.5
	2.   Yes, but not regularly	3 -> Score 0
	3. □ No	

## 3.2 Accuracy and Reliability

UN NQAF Level D – Managing statistical outputs, Principle 15 Assuring Accuracy and Reliability IMF DQAF 3. Accuracy and reliability, 4.3 Revision Policy and practice

82.	<ul> <li>Is the statistical process designed to cover all the LAND used for Agricultural purposes? [single choice]</li> <li>1. □ Yes, the statistics cover [Land Used] for agriculture purposes by the Agriculture holdings, Commercial farms; Common land</li> <li>2. □ No, the statistics refer to a subset of the land that however contributes to a largest fraction of the overall [Land use] for agriculture purpose</li> <li>3. □ No, the statistics refer only the subset of the units easier to be observed. Please specify</li> <li>4. □ other, please explain</li> </ul>	1 -> Score 1 2 -> Score 0.5 3 -> Score 0 4 -> Score to be decided according to the explanation
83.	In case of [Land Use] statistics based on one or more sample surveys, do you assess the accuracy of [Land Use] statistics in terms of sampling error (i.e. estimation of the sampling error, confidence intervals, etc.)?  [single choice]  1.	1 -> Score 1 2 -> Score 0.5 3 -> Score 0 4 -> NO score
84.	Do you have tools to assess potential impact of non-sampling errors on the accuracy of [Land Use] statistics?  (nonsampling errors are the errors that do not depend from the sampling and may arise in any phase of a statistical production process; usually they include missing values, measurement errors, errors in data treatment, etc.). Being these errors non linked to sampling they can be present in Census and Administrative data as well.  [single choice]  1. □ Yes, we regularly monitor them by calculating a set of quality indicators (fraction of missing values, number of changed/modified values because found erroneous, etc.)  2. □ Yes, but not on a regular basis  3. □ No	1 -> Score 1 2 -> Score 0.5 3 -> Score 0

85.	<ul> <li>Do you revise already disseminated [Land Use] statistics?</li> <li>[single choice]</li> <li>1. □ Yes, on a regular basis according to a well-defined revision policy (usually include at least 2 revisions od initial disseminated statistics)</li> <li>2. □ Yes, we disseminate provisional statistics and then replace them with the corresponding final estimates</li> <li>3. □ Yes, we revise the statistics only when errors in the disseminated figures are detected (there is not a revision policy or dissemination of provisional and final statistics)</li> <li>4. □ No</li> </ul>	
86.	IF "Yes" to the previous question  Do you calculate indicators related to the direction and size of revisions of [Land Use] statistics?  [single choice]  1. □ Yes, on a regular basis  2. □ Yes, not regularly  3. □ No	1 -> Score 1 2 -> Score 0.5 3 -> Score 0

## 3.3 Timeliness and Punctuality

UN NQAF Level D — Managing statistical outputs, Principle 16 Assuring Timeliness and Punctuality IMF DQAF 4. Serviceability, 4.1 Periodicity and Timeliness

07	De considérante de constitue de	[
87.	Do you disseminate provisional estimates?	
	[single choice]	
	1. □ Yes	
	2. □ No	
88.	IF provisional estimates are disseminated	
	Please indicate their timeliness in months (the time-lag from the end of the reference period to	<=6 months -> Score 1
	the dissemination date)	>6 & <= 12 months-> Score 0.5
		>12 months-> Score 0
	_ _  months for <u>provisional</u> estimates	
	·-·-·	
89.	IF provisional estimates are disseminated	<b> </b>
	Are provisional estimates disseminated to compensate for non-timely final [Land Use] statistics?	
	[single choice]	1 OR 2 -> Score 1
	□ Yes, this is the main reason	3 -> Score 0
	2.   Yes, this is one of the reasons	3 7 36016 0
	3. $\square$ No	
	3. LINO	
90.	What is the timeliness of [Land Use] statistics? (please indicate the time-lag from the end of the	<=12 months -> Score 1
	reference period to the dissemination date)	>12 Months > Score 1
	בייניים בייניים ולי נווב מוספרוווומנוטוו ממנבי	>24 -> Score 0
		/24 -/ SCOIE U
	_ _  months for <u>final</u> estimates	

91.	In case of (almost) regular production of [Land Use] statistics over the last 5 years. What is the observed trend of timeliness?  [single choice]  1.	1 OR 2-> Score 1 3 -> Score 0.5 4 OR 5 -> Score 0 6 -> No score
92.	IF previous questions = [3,4,5]  Are you planning to revise the process to improve the timeliness of [Land Use] statistics?  [single choice]  1. □ Yes, it's the main priority  2. □ Yes, but it is not the main priority  3. □ No	1 -> Score 1 2 -> Score 0.5 3 -> Score 0
93.	Does a published schedule announce the [Land Use] statistics publication dates in advance of their release? [single choice] 1. □ Yes 2. □ No	1 -> Score 1 2 -> Score 0
94.	Have you experienced problems in punctuality of dissemination of [Land Use] statistics? (i.e. statistics disseminated later than the scheduled date) [single choice]  1. □ Yes, often 2. □ Yes, sometimes 3. □ No	1 -> Score 0 2 -> Score 0.5 3 -> Score 1

## 3.4 Accessibility and Clarity

UN NQAF Level D – Managing statistical outputs, Principle 17 Assuring Accessibility and Clarity IMF DQAF 5 Accessibility

95.	The the disseminated [2010 050] statistics made nearly aranged for an assist				
	[single choice]				
	1. $\square$ Yes, fully	1 -> Score 1			
	2. $\square$ Yes, partially	2 -> Score 0.5			
	3.   No	3 -> Score 0			
96.	Are the disseminated [Land Use] statistics made available to all users at the same time?				
	[single choice]				
	1. □ Yes	1 -> Score 1			
	2. ☐ No – but embargos imposed to prevent early public disclosure	2 -> Score 0.5			
	3. □ No	3 -> Score 0			
97.	How are [Land Use] statistics disseminated?				
	[multiple choice]				
	1.   Data tables				
	2.   Analytical products				
	3.   Microdata files				
	4.   Other, please specify:				
98.	Are the users able to extract [Land Use] data from statistical database through a public query				
i   	interface in the most appropriate and common formats (xlsx, CSV, html, etc.)?				
	[single choice]	1 -> Score 1			
	1. □ Yes, fully	2 -> Score 0.5			
	2. $\square$ Yes, partially	3 -> Score 0			
	3. □ No				
İ					

99.	Can [Land Use] statistics be accessed via an Application Programming Interface (API)? [single choice]  1. □ Yes 2. □ No	
100.	Are [Land Use] statistics disseminated in a clear and understandable manner?  (i.e. the statistics come along with explanatory texts that clearly describes the content, well designed tables and graphical outputs, etc.)  [single choice]  1. □ Yes, all the statistics 2. □ Yes, but only a subset of the statistics 3. □ No	1 -> Score 1 2 -> Score 0.5 3 -> Score 0
101.	<ul> <li>Has [Land Use] statistics dissemination been adapted to reflect new IT dissemination opportunities such as mobile phones? [single choice]</li> <li>1. ☐ Yes, various methods of new IT dissemination opportunities have been adopted to reach the maximum number of users in a cost-effective way</li> <li>2. ☐ Yes, new IT dissemination opportunities have been adopted but the maximum number of users has not yet been reached</li> <li>3. ☐ No new IT dissemination system has been put in place</li> </ul>	1 -> Score 1 2 -> Score 0.5 3 -> Score 0
102.	Are users informed about revisions of already disseminated [Land Use] statistics?  [single choice]  1.	1 -> Score 1 2 -> Score 0.5 3 -> Score 0 4 -> No score

103.	Are [Land Use] statistics accompanied by the corresponding metadata needed to understand them?  [single choice]  1.	1 -> Score 1 2 -> Score 0.5 3 -> Score 0
104.	Are [Land Use] statistics accompanied by up-to-date methodological documents (on concepts, scope, classifications, basis of recording, data sources, compilation methods and statistical techniques), as well as quality reports freely available to the public?  [single choice]  1.	1 -> Score 1 2 -> Score 0.5 3 -> Score 0
105.	Do you monitor accesses to [Land Use] statistics by calculating related indicators?  [single choice]  1. □ Yes, regularly  2. □ Yes, occasionally  3. □ No	1 -> Score 1 2 -> Score 0.5 3 -> Score 0
106.	Is it possible for users to contact the agency to point out possible errors, to seek clarifications and, if necessary, to lodge complaints?  [single choice]  1. □ Yes  2. □ No	1 -> Score 1 2 -> Score 0

### **3.5 Comparability and Coherence**

UN NQAF Level D – Managing statistical outputs, Principle 18 Assuring Coherence and Comparability IMF DQAF 4.2 Consistency

107.	Do you assess the coherence of the disseminated [Land Use] statistics with similar statistics					
	produced and disseminated by another <u>National</u> Agency?					
	[single choice]	1 -> Score 1				
	1. ☐ Yes, regularly	2 -> Score 0.5				
	2. ☐ Yes, sometimes	3 -> Score 0				
	<b>3.</b> □ No	4 -> No score				
	4. ☐ Not Applicable (There are no other National Agencies producing [Land Use] statistics					
108.	Do you assess the coherence of the disseminated [Land Use] statistics with similar statistics					
	produced and disseminated by an <u>International</u> Agency?					
	[single choice]	1 -> Score 1				
	1. ☐ Yes, regularly	2 -> Score 0.5				
	2. ☐ Yes, sometimes	3 -> Score 0				
	<b>3.</b> □ No	4 -> No score				
	4. ☐ Not Applicable (There are no other International Agencies producing [Land Use] statistics					
109.	Are [Land Use] classified according to the SEEA Framework (2012) [Land Use] classification?					
	[single choice]					
	1. ☐ Yes, fully	1 -> Score 1				
	2. ☐ Yes, partially using AGRIS classification	2 OR 3 -> Score 0.5				
	3. ☐ Yes, partially using other LU classification	4 -> Score 0				
	4. □ No					
110.	IF [2,3,4] to previous question					
	Do you use a conversion table from internal to SEEA [Land Use] classification?					
	1.   Yes, there is a well-established and publicly available table	1 -> Score 1				
	2. $\square$ Yes, but the table is not stable over time	2 -> Score 0.5				
	<b>3.</b> □ No	3 -> Score 0				

111.	Are the units of measure used in disseminating [Land Use] data compliant with international standards?  (typically hectares for area)  [single choice]  1. □ Yes, fully  2. □ Yes, partially  3. □ No	1 -> Score 1 2 -> Score 0.5 3 -> Score 0
112.	IF [2,3] to previous question Is conversion of unit of measures done in accordance to established and fixed conversion table(s)? [single choice] 1. □ Yes, the table(s) are well-established and publicly available 2. □ Yes, but the table(s) are not stable over time 3. □ No 4. □ Not Applicable (conversion is not done)	1 -> Score 1 2 -> Score 0.5 3 -> Score 0 4 -> No score
113.	<ul> <li>In case of (almost) regular production of [Land Use] statistics over the last 5 years, to what extent are they comparable over time?</li> <li>[single choice]</li> <li>1. □ Fully comparable</li> <li>2. □ Partially comparable</li> <li>3. □ Not comparable because of a break in the time series. Please explain the reason for the break:</li> <li>4. □ Not applicable (no regular production of [Land Use] statistics over the last 5 years or comparability over time not assessed)</li> </ul>	1 -> Score 1 2 -> Score 0.5 3 -> Score 0 4 -> No score

114.	Are [Land Use] statistics comparable for geographical areas (districts, provinces, etc.) in the country?	
	<ul> <li>[single choice]</li> <li>1. □ Yes, fully</li> <li>2. □ Yes, partially</li> <li>3. □ No</li> <li>4. □ Not Applicable ([Land Use] statistics refer only to the whole country and no statistics are produced for geographical sub-domains)</li> </ul>	1 -> Score 1 2 -> Score 0.5 3 -> Score 0 4 -> No score

## 3.6. Managing the Metadata

UN NQAF Level D – Managing statistical outputs, Principle 19 Managing Metadata

115.	Do you have a metadata management system for [Land Use] statistics OR for all the statistics	
	produced and disseminated by your Agency?	
	[single choice]	1 -> Score 1
	1. Yes, it is fully operative	2 -> Score 0.5
	2.  Yes, it is partially operative	3 -> Score 0
	3. □ No	
116.	IF "Yes" to the previous question	
	Is the metadata management system in line with international standards (like SDMX, DDI, etc.)?	
	[single choice]	1 -> Score 1
	1. ☐ Yes, fully	2 -> Score 0.5
	2. ☐ Yes, partially	3 -> Score 0
	3. □ No	
117.	Are procedures in place to ensure that metadata on [Land Use] are documented according to	
	standardized metadata systems and regularly updated?	
	[single choice]	1 -> Score 1
	1. ☐ Yes, on a regular basis	2 -> Score 0.5
	2. ☐ Yes, but not on a regular basis	3 -> Score 0
	3. No	
118.	Are updates of metadata on [Land Use] statistics disseminated at the same time of [Land Use]	
	statistics themselves?	
	[single choice]	1 -> Score 1
	1. ☐ Yes, all the metadata	2 -> Score 0.5
•	·	3 -> Score 0
ļ <b>i</b>	2.   Yes, but only a subset of relevant metadata is updated and disseminated together with the data	
	<b>2.</b> $\square$ Yes, but only a subset of relevant metadata is updated and disseminated together with the	

# Annex 2 – Mapping between levels/items of the reporting template and questions

Section	Q_number	Q_name	Level	Process/quality
Sect.1	1	s1_finan_res	Level_2	2.2 resources
Sect.1	2	s1_human_res	Level_2	2.2 resources
Sect.1	3	s1_IT_res	Level_2	2.2 resources
Sect2	4	s2_has_stat_proc	Level_3	3.1 design
Sect2	5	s2_stat_diss_ext	Level_3	3.1 design
Sect2.1	7	s2_1_reg_AgCen	Level_3	3.1 design
Sect2.1	10	s2_1_data_SDG231	Level_3	3.1 design
Sect2.1	11	s2_1_data_SDG241	Level_3	3.1 design
Sect2.1	13	s2_1_samp_AgCen	Level_3	3.1 design
Sect2.1	14	s2_1_samp_AgCen_des	Level_3	3.1 design
Sect2.1	15	s2_1_samp_AgCen_err	Level_3	3.1 design
Sect2.1	16	s2_1_samp_AgCen_frame	Level_3	3.1 design
Sect2.1	17	s2_1_samp_AgCen_frame_err	Level_3	3.1 design
Sect2.1	18	s2_1_samp_AgCen_doc	Level_3	3.1 design
Sect2.2.1	19	s2_2_1_reg_survey	Level_3	3.1 design
Sect2.2.1.1	22	s2_2_1_1_def_units	Level_3	3.1 design
Sect2.2.1.1	24	s2_2_1_1_data_SDG231	Level_3	3.1 design
Sect2.2.1.1	25	s2_2_1_1_data_SDG241	Level_3	3.1 design
Sect2.2.1.2	26	s2_2_1_2_prob_samp	Level_3	3.1 design
Sect2.2.1.2	27	s2_2_1_2_samp_des	Level_3	3.1 design
Sect2.2.1.2	28	s2_2_1_2_sample_fix_error_N	Level_3	3.1 design
Sect2.2.1.2	29	s2_2_1_2_sample_fix_error_subN	Level_3	3.1 design
Sect2.2.1.2	30	s2_2_1_2_ samp_frame_maint	Level_3	3.1 design
Sect2.2.1.2	32	s2_2_1_2_under_cov_samp_fr	Level_3	3.1 design
Sect2.2.1.2	33	s2_2_1_2_over_cov_samp_fr	Level_3	3.1 design
Sect2.2.2	36	s2_2_2_prob_samp	Level_3	3.1 design
Sect2.2.2	37	s2_2_2_samp_des	Level_3	3.1 design
Sect2.2.2	38	s2_2_2_sample_fix_error	Level_3	3.1 design
Sect2.2.2	39	s2_2_2_samp_fr_overlap	Level_3	3.1 design
Sect2.2.2	41	s2_2_2_samp_doc	Level_3	3.1 design
Sect2.3.1	42	s2_3_1_CAI	Level_3	3.2 data_collect
Sect2.3.1	43	s2_3_1_resp_burden	Level_3	3.2 data_collect
Sect2.3.1	44	s2_3_1_interview	Level_3	3.2 data_collect
Sect2.3.1	45	s2_3_1_int_workload	Level_3	3.2 data_collect
Sect2.3.1	46	s2_3_1_aut_mon_datacoll	Level_3	3.2 data_collect
Sect2.3.1	47	s2_3_1_test_datacoll	Level_3	3.2 data_collect
Sect2.3.2	49	s2_3_2_admin_metadata	Level_3	3.2 data_collect
Sect2.3.2	50	s2_3_2_admin_geo_cov	Level_3	3.2 data_collect
Sect2.3.2	51	s2_3_2_admin_variab	Level_3	3.2 data_collect
Sect2.3.2	52	s2_3_2_admin_def	Level_3	3.2 data_collect
Sect2.3.2	53	s2_3_2_admin_miss_val	Level_3	3.2 data_collect
Sect2.3.2	54	s2_3_2_admin_timeliness	Level_3	3.2 data_collect

Sect2.3.2	55	s2_3_2_admin_time_ref	Level_3	3.2 data_collect
Sect2.3.2	56	s2_3_2_admin_effort	Level_3	3.2 data_collect
Sect2.4	59	s2_4_link_id	Level_3	3.3 data_treat
Sect2.4	60	s2_4_link_dupl_rec	Level_3	3.3 data_treat
Sect2.4	61	s2_4_link_assess	Level_3	3.3 data_treat
Sect2.4	62	s2_4_link_doc	Level_3	3.3 data_treat
Sect2.5	63	s2_5_how_conv	Level_3	3.3 data_treat
Sect2.5	64	s2_5_conv_test	Level_3	3.3 data_treat
Sect2.5	65	s2_5_conv_assess	Level_3	3.3 data_treat
Sect2.5	66	s2_5_conv_doc	Level_3	3.3 data_treat
Sect2.6	67	s2_6_check_errors	Level_3	3.3 data_treat
Sect2.6	68	s2_6_how_check_errors	Level_3	3.3 data_treat
Sect2.6	69	s2_6_what_imp	Level_3	3.3 data_treat
Sect2.6	70	s2_6_how_imp	Level_3	3.3 data_treat
Sect2.6	71	s2_6_doc_data_treat	Level_3	3.3 data_treat
Sect2.7	72	s2_7_do_reweighting	Level_3	3.4 data_process
Sect2.7	73	s2_7_doc_reweighting	Level_3	3.4 data_process
Sect2.8	74	s2_8_final_check	Level_3	3.4 data_process
Sect2.8	75	s2_8_validat_before_diss	Level_3	3.4 data_process
Sect2.8	76	s2_8_mod_before_diss	Level_3	3.4 data_process
Sect2.8	77	s2_8_backup_data	Level_3	3.4 data_process
Sect3.1	78	s3_1_users_needs	Level_4	4.1 Relevance
Sect3.1	79	s3_1_users_needs_disag	Level_4	4.1 Relevance
Sect3.1	80	s3_1_user_satisf	Level_4	4.1 Relevance
Sect3.1	81	s3_1_unmet_needs	Level_4	4.1 Relevance
Sect3.2	82	s3_2_survey_cover	Level_4	4.2 Accuracy&Reliability
Sect3.2	83	s3_2_stat_acc	Level_4	4.2 Accuracy&Reliability
Sect3.2	84	s3_2_eval_non_sampl_err	Level_4	4.2 Accuracy&Reliability
Sect3.2	86	s3_2_indicat_rev_stat	Level_4	4.2 Accuracy&Reliability
Sect3.3	88	s3_3_time_prov_estim	Level_4	4.3 Timeliness&Puctuality
Sect3.3	89	s3_3_why_prov_estim	Level_4	4.3 Timeliness&Puctuality
Sect3.3	90	s3_3_time_final_estim	Level_4	4.3 Timeliness&Puctuality
Sect3.3	91	s3_3_time_trend	Level_4	4.3 Timeliness&Puctuality
Sect3.3	92	s3_3_impr_time_stat	Level_4	4.3 Timeliness&Puctuality
Sect3.3	93	s3_3_have_release_cal	Level_4	4.3 Timeliness&Puctuality
Sect3.3	94	s3_3_punct_date_dissem	Level_4	4.3 Timeliness&Puctuality
Sect3.4	95	s3_4_free_dissem_stat	Level_4	4.4 Accessbility&Clarity
Sect3.4	96	s3_4_allusers_sametime	Level_4	4.4 Accessbility&Clarity
Sect3.4	98	s3_4_users_query_fmt	Level_4	4.4 Accessbility&Clarity
Sect3.4	100	s3_4_clear_dissem	Level_4	4.4 Accessbility&Clarity
Sect3.4	101	s3_4_newIT	Level_4	4.4 Accessbility&Clarity
Sect3.4	102	s3_4_inform_rev_dissem	Level_4	4.4 Accessbility&Clarity
Sect3.4	103	s3_4_metadata_stat	Level_4	4.4 Accessbility&Clarity
Sect3.4	104	s3_4_free_doc_stat	Level_4	4.4 Accessbility&Clarity
Sect3.4	105	s3_4_monit_access_stat	Level_4	4.4 Accessbility&Clarity
Sect3.4	106	s3_4_contact_point	Level_4	4.4 Accessbility&Clarity
Sect3.5	107	s3_5_coher_stat_ntl	Level_4	4.5 Comparability&Coherence

Sect3.5	108	s3_5_coher_stat_intern	Level_4	4.5 Comparability&Coherence
Sect3.5	109	s3_5_coher_SEEA_class	Level_4	4.5 Comparability&Coherence
Sect3.5	110	s3_5_SEEA_conv_tab	Level_4	4.5 Comparability&Coherence
Sect3.5	111	s3_5_std_unit_meas	Level_4	4.5 Comparability&Coherence
Sect3.5	112	s3_5_unit_meas_conv_tab	Level_4	4.5 Comparability&Coherence
Sect3.5	113	s3_5_time_compar	Level_4	4.5 Comparability&Coherence
Sect3.5	114	s3_5_geo_stat_compar	Level_4	4.5 Comparability&Coherence
Sect3.6	115	s3_6_metadata_sys	Level_4	4.6 metadata
Sect3.6	116	s3_6_metadata_sys_stand	Level_4	4.6 metadata
Sect3.6	117	s3_6_proc_doc_metadata	Level_4	4.6 metadata
Sect3.6	118	s3_6_metadata_dissem	Level_4	4.6 metadata

## <u>Annex 3 – Template for summarizing the outcomes of the assessment</u>

Reports on the Observance of Standards and Best Practices for Statistics on Land Used for Agriculture Purposes Based on the self-assessment exercise

Country:	
Date:	

#### 1. Introduction

A short introduction about Statistics on Land Used for Agriculture Purposes (Agencies/departments involved, frequency of production, type of survey process(ess), etc.

### 2. Summary results

Fill-in the following table according to instructions and average scores of the checklist' assessment items

Level	Item	Outcome*	Major identified weaknesses (only for outcome LNO and NO)
Level 2. Adequacy of	2.2 Assuring Adequacy of resources in producing		
resources	statistics on Land Used for Agriculture Purposes		
3. Statistical Process	3.1 Design		
	3.2 Data collection		
	3.3 Data treatment		
	3.4 Data processing		
4. Quality of the	4.1 Relevance		
statistical outputs	4.2 Accuracy and Reliability		
	4.3 Timeliness and Punctuality		
	4.4 Accessibility and Clarity		
	4.5 Comparability and Coherence		
	4.6 Management of metadata		

### 3. Recommended improvement actions

List and description of the recommended actions to be undertaken to improve the major identified weaknesses possibly with priority in implementation.

Level	Improvement actions	Priority*
2. Institutional framework (adequacy of resources)		
3. Statistical Process		
4. Quality of the statistical outputs		

<sup>\*1=</sup>High priority; 2=moderate priority; 3=low priority.