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SDG indicators under FAO custodianship: estimation of
missing data and data validation procedures

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Overview of data collection modalities

- ✓ For most of the SDG indicators that countries report on, **data is collected directly from national institutions** through designated focal points using FAO questionnaires, online platforms etc.
- ✓ For some indicators, where countries do not directly report data, **FAO creates estimates/collects data, which is then sent to the countries for validation**

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|--|--------|--------|--------|--------|-------|-------|-------|-------|-------|
| GOAL 2: Food security, Nutrition, Sust. agriculture | 2.1.1 | 2.1.2 | 2.3.1 | 2.3.2 | 2.4.1 | 2.5.1 | 2.5.2 | 2.a.1 | 2.c.1 |
| GOAL 5: Gender equality | 5.a.1 | 5.a.2 | | | | | | | |
| GOAL 6: Water Use | 6.4.1 | 6.4.2 | | | | | | | |
| GOAL 12: Sustainable consumption and production | 12.3.1 | | | | | | | | |
| GOAL 14: Oceans | 14.4.1 | 14.6.1 | 14.7.1 | 14.b.1 | | | | | |
| GOAL 15: Life on land | 15.1.1 | 15.2.1 | 15.4.2 | | | | | | |

Overview of the data validation issue from the perspective of FAO as Custodian Agency

- Use national official data sources when consistent with agreed indicator definitions and agreed international statistical standards
- When this is not possible, FAO may generate its own country estimates, in which case it will validate them with national authorities prior to publication
- This is a provisional, stop-gap solution, whereas in parallel, FAO invests major efforts in providing technical assistance and capacity development support so that countries are able to generate the indicators themselves with minimal additional reporting burden.

Overview of the data validation issue from the perspective of FAO as Custodian Agency

FAO follows the IAEG-SDG guidelines to validate data with countries

- Member States are requested to validate results prepared by FAO within a reasonable time frame of minimum one month- so national statistical authorities can review country-specific data and estimates of SDG indicators prior to their release
- FAO provides clarifications for any doubts raised by national validating authority, and **does not publish data that has been refused by countries.**
- When publishing relevant datasets, FAO is mindful of distinguishing between missing (NaN) values because “data do not exist” and missing values because data may exist but have “not been validated” – flag V under OBS_Status column

2.1.2: Prevalence of moderate or severe food insecurity in the population, based on the food insecurity experience scale (FIES)


- Based on an 8-question module incorporated in any large-scale national household survey
- Since most countries have not yet done so, as a **provisional** measure, since 2014 FAO has included this module in the Gallup World Poll and collected data for 150 countries.
- Such data are shared with national statistical offices for validation through an email communication sent by the FAO Chief Statistician, and **published only if countries did not object.**
- As of the latest SDG reporting, 11 countries from Asia and Pacific region withheld consent to publish estimates
- In parallel, FAO has invested huge efforts in capacity development to enable countries to carry out data collection and reporting on this indicator
- Largely as a result of these efforts, **73 countries have implemented the FIES at least once** using official household surveys

2.1.2: Prevalence of moderate or severe food insecurity in the population, based on the food insecurity experience scale (FIES)


- Problem 1: Many countries refused to validate the estimates, based on the notion that they were **not based on national official sources** (resulting in a catch-22 situation where custodian agencies are required to validate estimates because they use non-official sources, but validation is refused for the same reason).
- Problem 2: The validation process has proved extremely **resource intensive** and **time consuming**. This is a matter that has been deliberated extensively at the level of the IAEG-SDG and CCSA, with several proposals put on the table to address it, but no definitive decision taken yet.

5.a.2: Proportion of countries where the legal framework (including customary law) guarantees women's equal rights to land ownership and/or control

- The indicator assesses the level to which a country's legal framework supports women's land rights, by reference to six proxy conditions drawn from international law and internationally accepted good practices



FAO supports the national designated focal point(s) to carry out the assessment and fill the questionnaire



The designated national focal point submits the questionnaire to FAO for quality control.



FAO's focal points review the report and derive a country score based on the questionnaire responses by applying the criteria set in the established methodology.



The reviewed questionnaire and derived country score is then sent back to the country for final validation.

5.a.2: Proportion of countries where the legal framework (including customary law) guarantees women's equal rights to land ownership and/or control

PROBLEM 1: some countries have refused to validate the score derived from their own questionnaire responses

- In a recent example, one country questioned whether FAO's approach was compatible with the "voluntary, country-led" nature of the SDG indicator framework.
- FAO explained that it does not itself rate and rank countries, but merely applies an objective scoring and classification system that is published in the indicator metadata.

PROBLEM 2: Most countries have not yet identified a national focal point for this indicator who should ensure that the FAO questionnaire is filled in

PROBLEM 3: For some countries, while the focal point and institutions responsible for performing the legal assessment have been identified, the indicator is still not reported (this is the case for 7 countries in the Asia and Pacific region)

14.6.1 and 14.b.1 – implementation of international instruments to combat IUU fishing and promote small-scale fisheries

- Both indicators are based on countries' responses to relevant sections of FAO's biennial **Code of Conduct on Responsible Fisheries (CCRF) questionnaire**.
- Once countries submit their responses through the online platform, they are automatically shown the resulting SDG indicator scores for their validation.

PROBLEM: some countries have refused to validate the score derived from their own questionnaire responses - 10 countries in the Asia and Pacific region have not validated results for indicator 14.6.1 and 8 countries have not validated results for indicator 14.b.1). Similarly to 5.a.2, some countries questioned FAO's role in calculating the score, even if this is done by applying an objective, transparent scoring system.

- Henceforth, once the score is derived from country responses, validation will be the default option and any country that wishes to decline validation will be required to provide a justification.

SDG indicator 15.4.2 – Green Mountain Cover Index

- This indicator measures the changes of the green vegetation in mountain areas as a proxy of mountain ecosystem health.
- In the latest reporting cycle, only 13 countries produced figures themselves. For the rest of the countries, FAO uses geospatial data layers to generate the indicator and shares country figures with NSO SDG focal points for their validation before publication

PROBLEM: many countries noted the challenge of reviewing/validating data based on satellite images in terms of time and resources needed and the lack of detailed information on for example the type of satellite images used. This issue affects other SDG indicators as well and has been discussed at the level of the IAEG-SDG, which has decided to ask its working group on Geospatial Information (WGGI) to identify minimum validation criteria or common parameters to facilitate the process.

- Like SDG indicator 2.1.2, FAO is already deploying a wide array of tools to support countries in generating their own indicator values according to the established methodology.

Concluding thoughts

The IAEG-SDG and CCSA must come to a **swift resolution** on the question of validation, which has dogged both countries and international agencies for several years and was only **partially addressed** by the 2018 IAEG-SDG *Guidelines on Global Reporting* and corollary documents.

The agreement cannot remain at the level of procedural details, such as which platform to be used or the timing of the year to implement the process - it should address the **core of the issue**:

- Under what circumstances are countries able to refuse validation of estimates?
- Instead of needing to validate data *per se*, which results in custodian agencies needing to validate every single data point every year, could we move to a one-off **validation of methods**, after which all estimates derived from the same method would be considered tacitly approved and would not need to be validated themselves?