



SDG indicators related to livestock and biodiversity

Roswitha Baumung & Gregoire Leroy

FAO

Rome, Italy

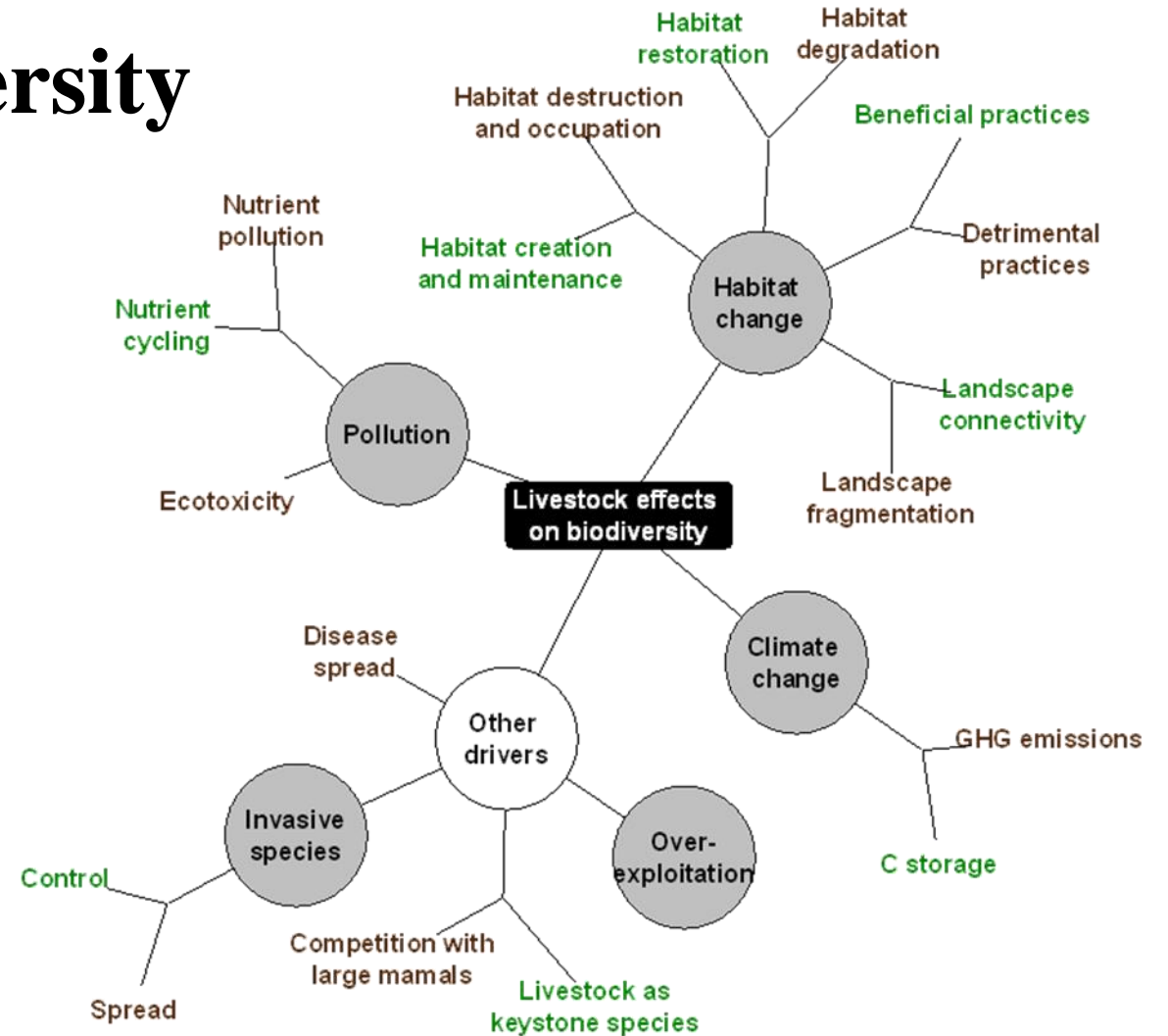
Roswitha.Baumung@fao.org

Gregoire.Leroy@fao.org

Outline

- Background
- Compiling SDG Indicators 2.5.1b and 2.5.2.
- Overview of DAD-IS
- Variables and data sources for DAD-IS
- Challenges and Obstacles
- Opportunities and Innovations
- Proposed recommendations

Livestock and the Biodiversity



Source: FAO. (2016).
Principles for the assessment of
livestock impacts on
biodiversity. Livestock
Environmental Assessment and
Performance (LEAP)
Partnership.

Livestock and the SDGs

The 2030 Agenda has shifted the emphasis from sustainable livestock production *per se* to enhancing the sector's contribution to the achievement of the SDGs

Livestock production relates directly or indirectly to each SDG

There are complex relationships between livestock and biodiversity – SDG 15

Livestock diversity is an integral part of biodiversity (agrobiodiversity) – SDG 2

Issue, background

Target 2.5: By 2020, maintain the genetic diversity of seeds, cultivated plants and farmed and domesticated animals and their related wild species, including through soundly managed and diversified seed and plant banks at the national, regional and international levels, and promote access to and fair and equitable sharing of benefits arising from the utilization of genetic resources and associated traditional knowledge, as internationally agreed

Issue, background

Indicator 2.5.1b: Number of animal genetic resources for food and agriculture secured in either medium or long-term conservation facilities – refers to the number of local breeds stored within gene banks with amounts necessary for a breed’s reconstitution in case of extinction.

Indicator 2.5.2: Proportion of local breeds classified as being at risk of extinction - The indicator presents the percentage of local livestock breeds among local breeds with known risk status classified as being at risk of extinctions at a certain moment in time, as well as the trends for this percentage. Risk classification is based on population sizes.

Compiling SDG Indicators 2.5.1b and 2.5.2.

How are they calculated?

DAD-IS calculates these two indicators based on the information provided. This information can be gathered from various sources, including research institutes and breeders' associations.

Who is responsible for entering data into DAD-IS?

National coordinators have responsibility for keeping information in this database up to date. This should be done at least every two years.

How to access DAD-IS?

Domestic Animal Diversity Information System <http://www.fao.org/dad-is/en/>

Who is my country's focal point?

List of national focal points <http://www.fao.org/dad-is/national-coordinators/en/>

Overview of DAD-IS

Basic data is reported by the National Coordinator for the Management of Animal Genetic Resources (NC) to DAD-IS, the Domestic Animal Diversity Information System (<http://www.fao.org/dad-is/en/>)

For 2.5.1b: cryconserved material – semen, embryos, oocytes...number of donors and doses

For 2.5.2: population size per breed, eventually also number of male and female breeding animals



What variables are collected by DAD-IS?

Information and Data in DAD-IS

DAD-IS stores various types of data on breeds, as listed below. To calculate the indicators, you need specific information on population data and conservation programmes.

General information

Basic characteristics

Performance data

Population data

Conservation programmes

Organizations

Publications

General information includes:

- Breed names;
- Breed uses;
- Breed classifications: exotic/locally adapted and local/transboundary;
- Risk classification;
- Images of these breeds.

Information and Data sources to inform 2.5.1b, 2.5.2

Information and Data Sources

Listed below are various sources that can provide you with the data and information needed to calculate both SDG indicators. These are also part of the **national coordinator's network**.



National Statistics Office and statistical divisions within ministries

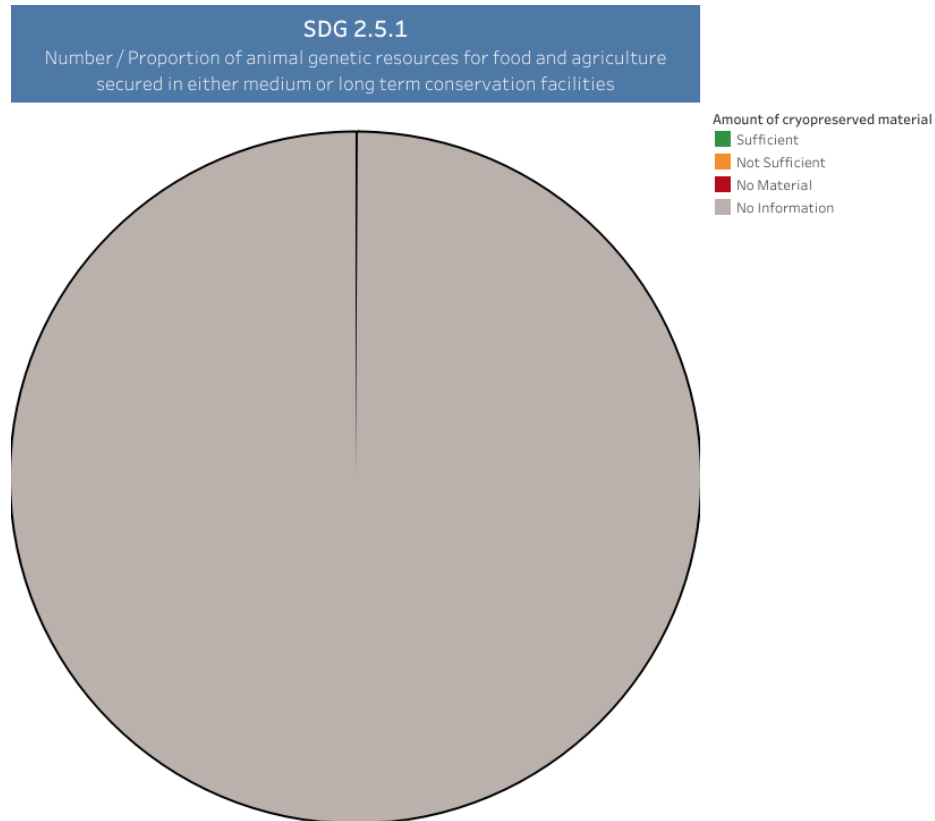
You can see in the table below which information, method and institution can assist in calculating SDG Indicators 2.5.1 and 2.5.2.

| | Information needed | Method used to collect information | Institution where you can get this information |
|-------|--------------------|---|---|
| 2.5.1 | Genetic data | Gene bank records | Gene banks |
| 2.5.2 | Population data | Livestock census, surveys or estimates based on various sources | Ministries of Agriculture/Environment, breeders' associations, etc. |

Challenges/risks 2.5.1b

- Purpose of the genebank/ reason for storing material unclear – e.g. semen for conservation purpose or commercial use
- Decision on what is considered to be “sufficient” needs to be done by an expert
- Responsibilities unclear (NC/NSI)
- Even “No material stored” must be reported as it is valuable information

Challenges/risks



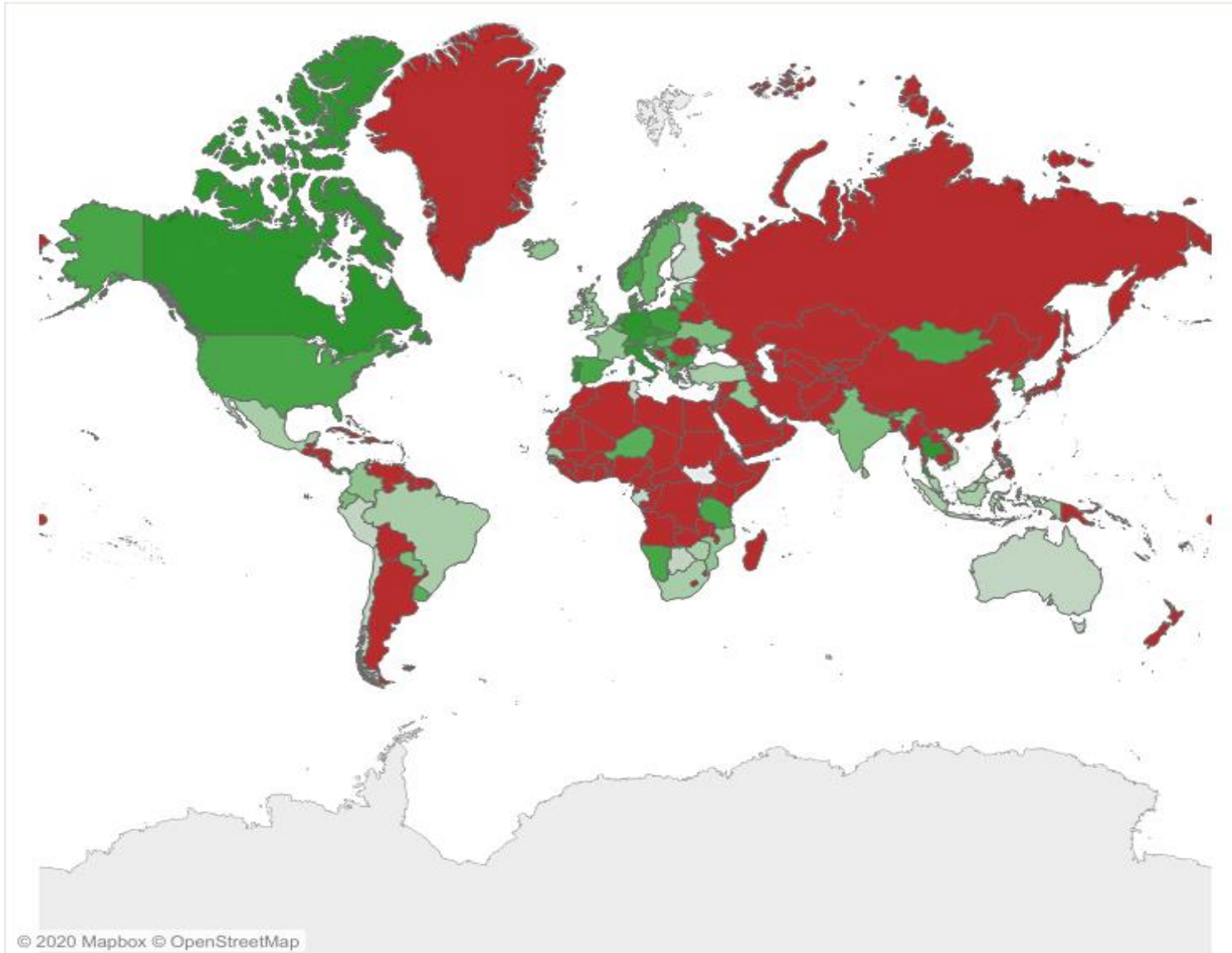
Last update: 02/12/2019 11:53:18

Status of reporting 2.5.1b

Only Republic of Korea is reporting

Challenges/risks 2.5.2

- (Reliable) population data on breed level
- Livestock censuses carried, if at all, only each 10 years – in the meantime a breed might get extinct, measures to rescue the breed come too late
- Livestock censuses frequently on species level (cattle, pig, chicken..) but not on breed level (Meishan, Landrace, Large White pig...), the underlying unit of the indicator/measure for agrobiodiversity
- Livestock censuses are costly
- Breeds are not defined/identified
- Responsibilities unclear (NC/NSI)



Status of reporting
0 100

Status of reporting 2.5.2

Source: <https://www.fao.org/dad-is/state-of-reporting/en/>

The boundaries and names shown and the designations used on these map(s) do not imply the expression of any opinion whatsoever on the part of FAO concerning the legal status of any country, territory, city or area of its authorities, or concerning the delimitation of its frontier and boundaries. Dashed lines on maps represent approximate border lines for which there may not yet be full agreement. Final boundary between the Republic of Sudan and the Republic of South Sudan had not yet been determined.

Last updated: 1/28/2020 3:08:26 PM

Innovations, opportunities 2.5.2

- Stratified sampling can provide a cost efficient way to estimate population sizes (e.g. positive experience in LAC – Colombia, Ecuador, Panama, Argentina...)
- Research projects including a component on breed specific data (e.g. rabbit project in Europe, World Bank project in Mongolia)
- Improved collaboration between National Coordinator for the Management of animal Genetic Resources (see <http://www.fao.org/dad-is/national-coordinators/en/>) and National Statistics Institute
- Improved technology allows uploading data into the reference system DAD-IS (API –application programming interface of DAD-IS used e.g by AnimalGrin)

Proposed Recommendations to countries

The Commission recommends national focal points of SDG indicators 2.5.1b and 2.5.2 to regularly coordinate with information and data providers in their country to ensure DAD-IS is up to date every two years

The Commission recommends national focal points of SDG indicators 2.5.1b and 2.5.2 to share their experiences with national focal points of other APCAS member countries

The Commission recommends countries reporting “no material” for SDG indicator 2.5.1b to follow up and review with their national focal points

The Commission recommends APCAS member countries to explore the use of livestock censuses and surveys to collect *breed* and *population* parameters for the SDG indicator 2.5.2

Proposed Recommendations to FAO

The Commission recommends FAO to continue promoting the importance of SDG indicators 2.5.1b and 2.5.2 through global, regional and national forums

The Commission acknowledges the importance of the national focal point in reporting SDG indicators 2.5.1b and 2.5.2 and recommends FAO to raise awareness on their role in coordinating across national information and data providers

The Commission recommends FAO to provide trainings on the DAD-IS data entry tool and cost-efficient methods to estimate livestock populations to improve reporting of SDG indicators 2.5.1b and 2.5.2.

Thank you!

Roswitha.Baumung@fao.org

Dad-is@fao.org

Gregoire.Leroy@fao.org