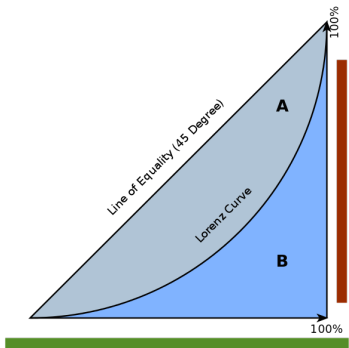# Dashboard Methodology: 2C.1

Commitment 2: Strong Small-Scale Family Farming

2C.1	Equitable land distribution, by size

Section 1: Description of Indicator, Implementation and Scoring

Method to be Used	Calculation Based on Available Data

Introduction	Indicator 2C.1 measures the current scale of land concentration, based on the most recent available data. It allows us to paint a picture of inequality in access to and control over agricultural land.
Source of Methodology	Gini Coefficient for wealth distribution, applied to land
Data Needed	For this indicator to be calculated properly, you will need a <u>big data set</u>. It should include, at minimum: • The total number of registered agricultural landowners or holders of land in your country. • The amount of agricultural land registered or held by each owner or holder.
Definitions	The **Gini coefficient** measures the dispersion of a resource among members of a defined population. It is most commonly used to measure how income or wealth is distributed within a country, but the same principle can be applied to land. In simplified statistical terms, the Gini coefficient is the ratio between: 1. The area in grey (A) below (between the Line of Equality and the Lorenz Curve), and 2. The total area under the line of equality (A+B). 3. In other words, Gini measures how big A is in relation to A+B. [G= A/(A+B)] The diagram below is a standard Gini coefficient representation, with the Y (red) axis representing the share of income earned and the X (green) axis would represent the share of people. When applied to land distribution, the red axis represents the cumulative **share of registered or held agricultural land**, from 0 to 100% of the total registered or held agricultural land in the country. The green axis represents the cumulative **share of people with held or registered agricultural land**, from 0 to 100 percent of the population. If the amount of land held were equal for every person, the Gini coefficient for land distribution would be G=0, as represented by the Line of Equality (45 degrees) in the diagram above. If all of the land in a country was held by a single person, then G=1 and the Lorenz curve would be pushed up against the red and green axis. The smaller the curve compared to the 45-degree line, the less inequality – or more equality – you have. For Dashboard indicator 2C.1, we use the following definition of **agricultural land**, which was proposed in the World Census of Agriculture 2020 (WCA 2020). It includes: • <u>land under temporary crops</u>, defined as: "all land used for crops with a less than one-year growing cycle" (WCA 2020). Temporary crops comprise all the crops that need to be sown or planted after each harvest for new production (e.g. cereals). The full list of crops classified as 'temporary' is provided in the WCA 2020, page 165 (http://www.fao.org/3/a-i4913e.pdf). • <u>land under temporary meadows and pastures</u>, defined as land that has been cultivated for less than five years with herbaceous or forage crops for mowing or pasture. • <u>land temporarily fallow</u>, is defined as when arable land is kept at rest for at least one agricultural year because of crop rotation or other reasons, such as the impossibility to plant new crops, this is defined as temporarily fallow. This category does not include the land that it is not cultivated at the time of the survey but will be sowed and planted before the end of the agricultural year.

	• <u>land under permanent crops</u>, defined as an area that is cultivated with long term crops that do not need to be replanted every year, such as fruits and nuts, some types of stimulant crops, etc.
	• <u>land under permanent meadows and pastures</u>, defined as land cultivated with herbaceous forage crops or is left as wild prairie or grazing land for more than five years.
	
	For indicator 2C.1 – following the WCA definition – **agricultural land excludes**:
	  • 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

How to Implement	1. The first step to implementation is determining whether the needed data for this indicator exists.
	  • Is there national data on the total number of registered agricultural landowners or holders of land in your country?
	  • Does the data set tell you the amount of agricultural land registered or held by each owner or holder?
	  • If this data does exist, is it public and accessible?
	2. If the answer to all four of these questions is "Yes," then we can calculate the Gini coefficient for land in your country.
	3. If you have a link to these database(s), you can include the link in the box provided in Block 2, below. Alternatively, if you are not able to send a link but have a downloadable version of the dataset, you can send this via email, if possible, or with DropBox or GoogleDrive depending on the size of the file.

How to Score	As with all coefficients, the eventual score for the Gini coefficient will be 0-1, as described above, where 0 represents perfect equality and 1 represents complete inequality. We will use an automated equation to calculate the Gini land coefficient for your country, assuming all of the data listed above is provided. Once you have determined the availability of the data requested in Section 2, send this form back with an explanation of the dataset and we will determine whether or not the Gini coefficient can be calculated. If the data exits, but is not accessible or you do not have the rights to use it, indicate that in Section 2.

Section 2: Assessment

Block 1: Total number of registered agricultural landowners in the country

1	Number of registered agricultural landowners in the country	B1
	How many of these are men (if possible):	B1.A
	How many of these are women (if possible):	B1.B
Ref:		
Block 1		B1

Block 2: Amount of registered land per agricultural landowner:

1	The amount of agricultural land registered in the name of each landowner:	
Ref:	Include link to dataset here.	
Block 2		

Section 3: Results

Compute Percentage:

2C.1 Final Score (G=0-1)	Caculated automatically

2C.1 Final Score	0-1