Dashboard Methodology: 2C.2

Commitment 2: Strong Small-Scale Family Farming

2C.2	**Productivity Gap**

Section 1: Description of Indicator, Implementation and Scoring

Method to be Used	Calculation Based on Available Data

Introduction	Indicator 2C.2 measures the difference between the actual and potential yield of the primary crop(s) in a given country, according to major climate regions, inputs available, and scale of farming.
Source of Methodology	Dashboard
Data Needed	For this indicator, you will need two data sets, for a minimum of one and a maximum of three primary crops. • Actual yield of crop, according to unit of measurement. • Potential yield of crop, according to [same] unit of measurement.
Definitions	**Actual Yield (Y_a):** Crop yields are the harvested production per unit of harvested area for crop products. Actual (Y_a) reflects the current state of soils and climate, average skills of the farmers, and their average use of technology. • For this indicator, it will be enough to use the most recent national averages of actual yield per crop. In the future, we hope to accommodate more granular datasets, but for this exercise it will be enough to know the average yield of the primary crop(s) on the national level. **Potential Yield (Y_p):** Potential yield is the yield of a crop when it is grown in an environment to which it is adapted, where nutrients and water are not limited, and where pests, diseases, weeds, and other stresses are effectively controlled. Potential yield (Y_p) depends on location, as it relates to weather but is independent of soil, which is assumed to be physically and chemically favorable for crop growth. • For this indicator, it will again be enough to use the most recent national averages of potential yield per crop.

How to Implement	1. Determine which crop(s) is most prominent or significant in your country. The following indicator must be calculated for one crop, minimum, and a maximum of three. 2. Determine the data available in your country. • The following global (OECD) database may provide national-level actual yield (tons per hectare) for the primary crops in your country: https://data.oecd.org/agroutput/crop-production.htm • If not, there are likely several global or nationally based databases that could provide information on actual yield as well as potential yield.

How to Score	The indicator will be calculated according to the following equation: $$\frac{\textbf{Actual Yield (Ya)} - \textbf{Potention Yield (Yp)}}{\textbf{Potential Yield (Yp)}} = \textbf{Production Gap}$$

Section 2: Assessment

Block 1: Actual and potential yield of most prominent or significant crop produced in the country:

1	What is the actual yield of crop 1 (required):	B1.A
2	What is the potential yield of crop 1 (required):	B1.P
Ref:	*Here, give the year and a source for each of the numbers provided above.*	
Block 1, Crop 1 production gap – calculated as the following: $\left[\frac{\textbf{Actual Yield (B1.A)}-\textbf{Potention Yield (B1.P)}}{\textbf{Potential Yield (B1.P)}}\right] \times \mathbf{100} = \mathbf{B1}$		B1

Block 2: Actual and potential yield of *second* most prominent or significant crop produced in the country (optional):

1	What is the actual yield of crop 2 (optional):	B2.A
2	What is the potential yield of crop 2 (optional):	B2.P
Ref:	*Here, give the year and a source for each of the numbers provided above.*	
Block 2, Crop 2 production gap – calculated as the following: $\left[\frac{\textbf{Actual Yield (B2.A)}-\textbf{Potention Yield (B2.P)}}{\textbf{Potential Yield (B2.P)}}\right] \times \mathbf{100} = \mathbf{B2}$		B2

Block 3: Actual and potential yield of most *third* prominent or significant crop produced in the country (optional):

1	What is the actual yield of crop 3 (optional):	B4
2	What is the potential yield of crop 3 (optional):	B5
Ref:	*Here, give the year and a source for each of the numbers provided above.*	
Block 3, Crop 3 production gap – calculated as the following: $\left[\frac{\textbf{Actual Yield (B3.A)}-\textbf{Potention Yield (B3.P)}}{\textbf{Potential Yield (B3.P)}}\right] \times \mathbf{100} = \mathbf{B3}$		B3

Section 3: Results

Compute total Production Gap:

Block 1:	B1
Block 2:	B2
Block 3:	B3
2C.2 Final Score (0-100) **if only Block 1 (one crop) is included**:	B1
2C.2 Final Score (0-100) **if Blocks 1 and 2 (two crops) are included**:	$\frac{B1 + B2}{2}$
2C.2 Final Score (0-100) **if Blocks 1, 2 and 3 (three crops) are included**:	$\frac{B1 + B2 + B3}{3}$

2C.2 Final Score	0-100