

PROPORTION OF SURVIVING SEEDLINGS

Indicator Phrasing

English: % of surviving seedlings at end of [specify the time-frame]

French: % de semis survivants à la fin de [précisez la période]

Portuguese: % de mudas sobreviventes no final de [especificar o prazo]

Czech: % přeživších sazenic na konci [upřesněte časový rámec]

What is its purpose?

The indicator measures the proportion of seedlings in the affected areas that survived for a certain period. It indicates the effectiveness of measures aiming to increase the use of trees or bushes.

How to Collect and Analyse the Required Data

Determine the indicator's value by using the following methodology:

1) **Randomly select several areas where the seedlings are planted.** The number of areas depends on the overall size and character of all the areas where seedlings are planted. If the seedlings are planted in very diverse environments (e.g. close to / far from a water source; on a slope / on flat land; close to / far from grazing areas; close to / far from people's houses; etc.), ensure that each environment is appropriately represented. **The representativeness of the various environments in which the seedlings were planted is very important** for the reliability of the collected data. On the other hand, if you, for example, planted a limited number of fruit trees in a few orchards only, you can easily select all the orchards.

2) In each area, randomly **select a smaller reference plot of a similar size** (at least 100m²) **and define its boundaries.** As much as possible, ensure that the boundaries of the reference plot are easy to identify (e.g. thanks to natural landmarks, such as a full-grown tree or a ditch; or thanks to markers installed by a person, such as visible and durable poles). Record the GPS of all reference plots. Consider taking photos so that later (during any follow-up survey) it is easier to find the reference plot and its boundaries.

3) At the same time, **count the number of planted seedlings within each reference plot.** **Record the number** alongside the GPS (and photos) of the plot in your monitoring report (or any other document / software where you store collected data).

4) When the monitored period is over (see the first comment below), visit all reference plots and count the number of seedlings that survived.

5) To **calculate the indicator's value**, divide the number of seedlings that survived by the number of seedlings that were planted (all within the monitored reference plots only). Multiply the result by 100 to convert it to a percentage.

Disaggregate by

[Disaggregate](#) the data by the type of environments where the seedlings were planted. If you are planting seedlings over a period of several years (see below), also disaggregate the data by the year when they were planted.

Important Comments

1) The assessment of how many seedlings have survived should be **conducted at the beginning of the rainy season** as soon as it is possible to determine whether the seedling is alive but before the surrounding vegetation becomes so dense that it is difficult to find the planted seedlings. Avoid monitoring seedlings during the dry season, when it might not be clear whether the seedling is just hibernating or is dead.

2) **The assessment of planted seedlings needs to be done by experienced people** who have a good understanding of how seedlings grow and can reliably recognize a dead seedling (e.g. staff of plant nurseries, agriculture extension workers). Avoid sending regular M&E staff or enumerators to conduct such an assessment.

3) **Many interventions plant seedlings annually** (i.e. not just once). In such a case, it is necessary to **decide whether you will measure**:

- the proportion of all the planted seedlings that survived their first dry season (showing a shorter-term survival)
- the proportion of all the planted seedling that survived until the end of the project (showing the proportion of planted seedlings that might continue growing when the project is over)
- alternatively, you can measure both

Each type of data will give you different information. Both require that the staff assessing planted seedlings are **able to distinguish how old are the seedlings** (i.e. when were they planted), as there will be seedlings planted in different years, in the same reference plots. If you think that this might be a difficult, consider marking seedlings planted in a given year with a durable plastic stripe of a unique colour (so that seedlings planted in different years are marked with a different colour and are easy to distinguish).