



FSC-STD-20-007

2-STEP SAMPLING FOR FM GROUPS

Interpretation and examples

Enquiry:

How are the two step approach and the definition of levels to be implemented? If size sets within the group are obligatory, there will be one set for each size class, then how can I do a two step approach in this situation? Am I allowed to do a sample only in one size class?

Or does this apply only for different sets within the same size class, e.g. group members managing plantations and group members managing natural forest?

If a sample within each size class is required, another problem occurs: If 20 members are within the size class 1.000-10.000 ha and only 1 member is smaller, the sampling intensity will become much higher in the lower size class. I have to visit the one member every year.

The same applies the other way round: 20 members between 100 and 1.000 ha, one member 1.100 ha. The sample of 0'2 SRT one member will result in one, I have to audit this member every year instead of every five years.

PSU Interpretation:

When evaluating FM Groups made up of small size FMUs ($\leq 1,000$ ha), the minimum number of units to be sampled must be calculated using the 2-step approach. All FMUs shall be divided into groups, according to their size, obtaining size-sets. The 2-step approach will then be applied to each of these size-sets, obtaining the minimum number of FMUs (or set of 'like' FMUs) to be sampled within each of the size-sets. Therefore, it is not allowed to do a sample only in one of the size-sets.

The 2-step approach shall be applied to each size-set, whether there are other sets of 'like' FMUs within these size-sets or not (see examples below).

The CB shall carry out one or more FMU level site visits annually, except for groups or sub-groups of SLIMFs with less than 100 members that comply with the requirements specified in clause 6.3.3 of the FSC-STD-20-007. In these cases, the certification body shall carry out at least one FMU level site visit at the



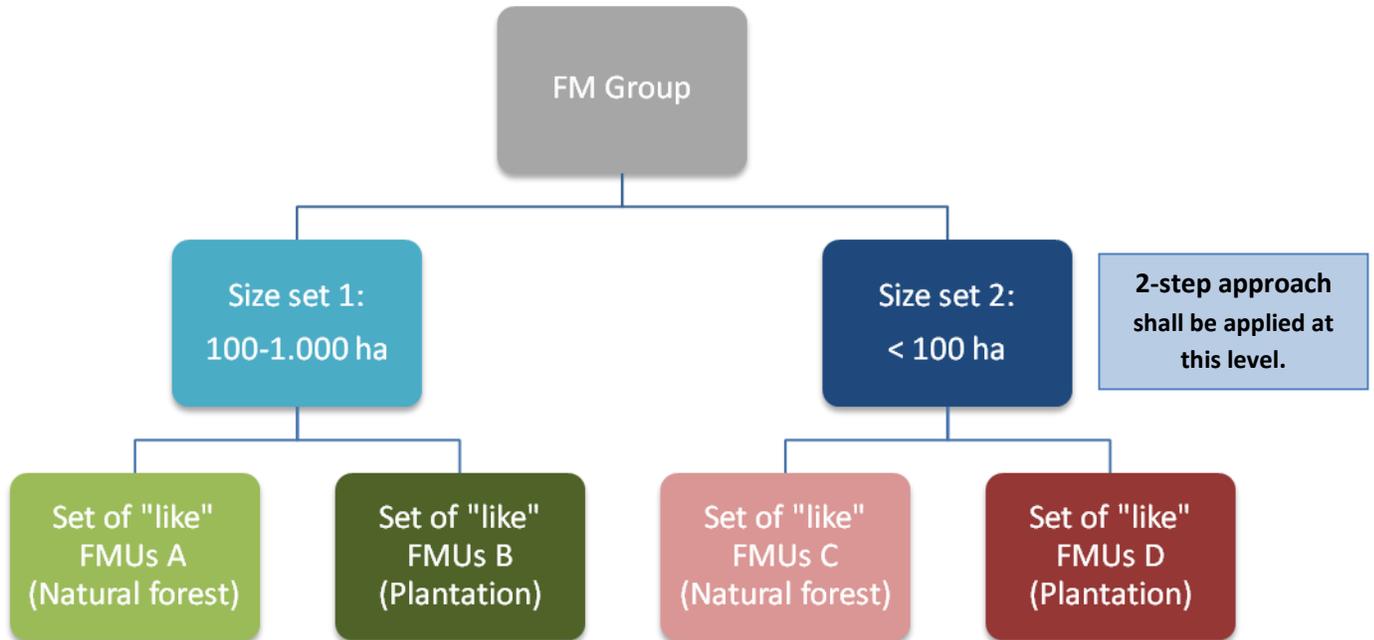
end of the first year in which the certificate was issued, and at least one additional FMU level site visit during the period of validity of the certificate. If there are no outstanding corrective actions to be evaluated and no unresolved complaints requiring evaluation the remaining surveillance evaluations may be based on review of documentation and records specified in 6.2, and do not require FMU level site visits.

Clause 6.3.3 shall be applied at the level of sets of 'like' FMUs, once all the FMUs have been classified according to size, forest type and applicable national or regional standard.

Normative Reference: FSC-STD-20-007

Requirement(s): Annex 1. Clause 6.3.3

EXAMPLE NUMBER 1:



Application of 2-step approach for this case (for main evaluation):

Step 1: defines minimum number of sets of 'like' FMUs (X) to be sampled in each evaluation.

SIZE SET 1:

$$X = 0.8 * \sqrt{y}$$

where y = total number of sets of 'like' FMUs

In this case y= 2 (sets of "like" FMUs A and B)

$0.8 * \sqrt{2} = 1.13 \approx 2 \rightarrow$ Therefore, both sets A and B (Natural forest and Plantation) must be evaluated.

Step 2: defines minimum number of units to be sampled (X) within each set of 'like' FMUs.



Set of 'like' FMUs A

$$X = 0.8 * \sqrt{y},$$

where y = number of FMUs directly managed by the forest owner + number of RMUs (eg. $y = 120$)

$X = 0.8 * \sqrt{y} = 0.8 * \sqrt{120} = 8.76 \approx 9$ FMUs to be sampled within the set of "like" FMUs A during the main evaluation.

The same process shall be applied for the set of 'like' FMUs B.

For the sets of 'like' FMU C and the sets of 'like' FMU D, grouped under the size set 2 (<100 ha): the 2-step approach is applied as in size set 1, but using the formula $X = 0.6 * \sqrt{y}$.

EXAMPLE NUMBER 2:



Application of 2-step approach for this case (for main evaluation):

Size group 100 – 1,000 ha:

Step 1: defines minimum number of sets of ‘like’ FMUs (X) to be sampled in each evaluation.

$$X = 0.8 * \sqrt{y} ,$$

where y = total number of sets of ‘like’ FMUs.

In this case y= 1 (since there are no further divisions within the size sets).

$$0.8 * \sqrt{1} = 0.8 \approx 1 \rightarrow \text{Therefore, the size set 1 must be evaluated.}$$

We would repeat the same calculation with **size set 2**, but using the formula $X = 0.6 * \sqrt{y}$.

Step 2: defines the minimum number of units to be sampled (X) within each set of ‘like’ FMUs. Since there is only one set at this level, the calculation shall be made just once:

$$X = 0.8 * \sqrt{y},$$

Y= number of FMUs = 120 (for example)

$$X = 0.8 * \sqrt{y} = 0.8 * \sqrt{120} = 8.76 \approx 9 \text{ FMUs to be sampled within the size set 1 during the main evaluation.}$$

We would repeat the same calculation within **size set 2**, but using the formula $X = 0.6 * \sqrt{y}$.