

Birmensdorf meeting

Minutes

Introduction

Claude Vidal presented the timetable since the Vienna meeting, as well as the discussion with the JRC and the following of the Framework Contract we will have to discuss during this meeting. The deliverable modifications were also presented.

Presentation available on the Eforest website

Tour de Table – New submission

Switzerland

No major problems. For some Swiss species only the genus was on the Eforest list. On the contrary, when the Swiss NFI does not distinguish between 2 species and notes only the genus this genus was put in the genus sp. category in the Eforest list. So, in fact the genus sp. category can have two different meanings: the species is not distinguished by the country or the species is not available in the list and so the country has to put this species in the genus sp. category (e.g. in Switzerland the Eforest *Populus sp.* corresponds to *Populus sp.*, *Populus alba* and *Populus canescens*).

The Swiss NFI has additional information than those requested by Eforest, but they didn't provide them (not identifiable tree species, shrubs with $dbh \geq 12cm$).

All plots in the country are in the domain forest because they are all used for forest area estimation. The basal area variable is estimated in the forest, so domain basal area = 1 for all forest plots except non accessible plots (domain basal area = -1). For non-forests plots domain basal area is not given.

France

The French NFI chose to give code =1 to the *Is_Partitioning_Plot* variable when there is a forest/non-forest boundary but also for entire forest plots with 2 different stands. This is a particular case compared with the other countries because in this case, the French NFI only assesses one stand. In fact it does not correspond to the partitioning plot definition and it has to be modified.

After consulting the Thematic Officers only the terrestrial grid has been provided.

The 2 subspecies *Pinus nigra* subsp. *salzmannii* and *Pinus nigra* subsp. *Laricio* were merged into the Eforest *Pinus nigra* category.

The French NFI gave its understanding of the domain forest and the domain basal area.

Czech Republic

Plots coordinates are degraded. Clusters have been shifted according to the Vienna meeting conclusions. All plots have the same weight.

Domain basal area: =0 for all non-forest plots, =1 for forest plots (subcategory forests stands – harvested plots included even if the basal area is equal to 0), = -1 for non-stocked forests, forest roads and non accessible plots.

Domain forest = 1 for all plots because they are all assessed.

For partitioning plots: the centre plot decision was used. The *Is_Partitioning_Plot* variable is equal to 1 only for forest/non-forest boundary. When different stands are on the plot all the stands are assessed.

15 species were added in the first submission but not in the second one.

Dead trees are excluded according to the Vienna meeting conclusions.

Sweden

There is no partitioning plot in Sweden.

The plot statistical weight was calculated according to the forest proportion in the plot. Sweden has

to send back a new set of data with weighted function corresponding to the guidance.
There was no problem with the tree species.

Denmark

Each plot has the same inclusion, so the statistical weight = 1.

Domain forest: all plots (forest and non-forest) have to be included, anyway the inland waters are excluded so there is no domain forest=0.

Denmark provided the main basal area for each plot, so a new submission will be done to upload all the tree species for each plot.

Domain basal area should be reviewed.

The centre plot decision for partitioning plots has been followed even if this is not the national decision method.

Finland

For the new submission the dbh class has been added, cycle 10 has been put for all plots, the basal area has been corrected for shared plots, water plots have been excluded, from strata also.

Finland gave its understanding of the partitioning plots, the domain forest and the domain basal area. Partitioning plots: when there are two different stands in a plot the Is_Partitioning_Plot is equal to 0 because the basal area is assessed for all the trees in the plot. Is_Partitioning_Plot =1 where there is a forest/non-forest plot with the centre of the plot in forest. Then the basal area is corrected with the proportion of forest in the plot. Is_Partitioning_Plot = 0 if the centre of the plot is outside forest.

Domain forest variable =1 all the time because the inland waters are excluded.

Domain basal area: if the plot is in open land, forestry roads or other land domain basal area = 0. If the plot is in productive forest domain basal area = 1.

Spain

The systematic grid should be provided in order to deduce non-forest plots from his grid. Who will make the job, Spain or the French team? If the French team does it, the French team will send the files to Spain and then Spain will upload them.

Domain forest: for forest with crown cover $\geq 10\%$ domain forest = 1, for sparse forest (crown cover $< 10\%$) domain forest = -1.

Domain basal area: all plots get domain basal area = 1.

Several species have been grouped to correspond to the tree species list.

There are no partitioning plots in Spain.

The dbh class has to be corrected and Is_Partitioning_Plot codes will be modified.

Romania

There were many changes compared to the first submission: the problem of the cluster coordinates due to shifting has been solved. For Is_Partitioning_Plots the centre decision was taken into account. Only 2 years of field data are available. Some species have been grouped.

Forest domain: some plots are not visited (because the first cycle is not finished yet). Forest domain =1 for all plots, except non-accessible plots (domain forest = -1).

Partitioning plots: the centre plot decision was applied. When there are two different stands in a plot this is not a partitioning plots because all trees are assessed in the plot.

Statistical weight: there are 2 systematic grids (different in mountains). Within each grid the statistical weight is 1.

Austria

A new variable added is the dbh class. The tree species have been specified in the new submission. Statistical weight = 1 everywhere.

Domain forest: in all cases domain forest =1.

Domain basal area: in Austria this is defined according to the forest management type. For non-forest plot the basal area is not defined, so domain basal area = 0. For forests with protective functions and without timber yield domain basal area = -1. For roads, unstocked areas, shrub areas domain basal area = 0. For productive and coppice forests with forested areas domain basal area =1. Partitioning plots: only for plots with forest/non-forest boundary, the centre plot decision is applied and 1/10 of the plot has to be in forest.

The tree species *Salix caprea* was added. Enhancement for the tree species list: there is no differentiation between hard and softwood for the other broadleaves category.

Tour de table – New countries

Germany

They already tried to prepare the files to upload. It seems to be some difficulties with dbh class, tree species and dead trees.

The domains seem to be clear.

Italy

The Confidentiality agreement is signed.

The Italian case is more complicated because there is a lot of strata, but they could be provided.

Italy has about 200 000 plots with a forest/non-forests distinction coming from photointerpretation (first phase). Then they select 1/3 of these plots and they process to terrestrial assessments. The solution is to provide only the terrestrial grid. But they only have forest plots for terrestrial grid. The non-forests plots could be deduced from the grid as for Spain.

The basal area is only available for the 3rd phase. But if they only provide the 3rd phase there will not be any non-forest plots. We will have to find a common way of working.

Latvia

Latvia has already started data preparation. It does not seem to have any problem for the moment.

Hungary

The forest information is based on maps. 20% of plots are not visited in the field and information is taken from management plans (e.g. for non-accessible plots). Non-forest plots can be provided.

There are no partitioning plots. There is only one stratum. They use clusters, which can be shifted.

For the tree species list: some species will be grouped.

The Inspire grid has to be applied.

Portugal

They have a multi-phase forest inventory. The forest/non-forest plots can be provided. There are no partitioning plots.

The domains and the definitions need to be clarified.

General Conclusions

Only the last cycle should be provided. If the country provides real coordinates the E-forest team will make the transformation to the centre of the 1x1 km grid.

Should the tree species list be modified for everybody? In that case all SC3 countries will have to reupload their data. This will be done for the SC5 deliverables.

Partitioning plots

Klemens Schadauer presented different cases for partitioning plots on the basis of the Kari Korhonen's presentation.

Presentation available on the Eforest website.

General Conclusions

- The Is_Partitioning_Plot variable is just additional information. For the moment it will not be used to undertake statistical estimations. We just keep this information to have it in mind. So, the purpose is just to know if there is a borderline and if the basal area comes from measurement or calculation.
- Is_partitioning_Plot: yes or no? The decision is taken from the plot center. If it is in forest Is_Forest_Plot = 1, if not just skip the plot. In each case where the NFI is aware that there is a borderline put 1 (independently from the kind of borderline, and even if there is no correction made). If the centre of the plot is in forest (Is_Forest =1), each country have to complete the plot.
- Just for country with real partitioning (forest/non-forest boundary), they have to distinguish different cases according to the domain basal area. (see presentation on the Eforest website).

Domains definitions

Adrian Lanz presented a clear definition of forest domain and basal area domain. Specific cases in some countries were discussed directly with Adrian.

Presentation available on the Eforest website.

Domain forest

Is_forests_plot is the target variable for forest area estimation.

Normally forest area is defined as a percentage of the stratum. If for some reasons a country excludes some areas when estimating the forest area (lakes, military areas), then domain forest =0 for those areas. In fact it should be very rare.

Domain = -1 if the data is missing. In this case the country knows that the plot belongs to the stratum (for forest area estimation) but the country has no data. Example: plots (variable is_forest_plot) not accessible (by field teams).

Domain basal area

For basal area the stratum is the forest area. So, everything that is not in forest gets the code 0.

Some countries have the national tradition to provide estimates about basal area (or volume) for productive forest only, or for the forest area excluding forest roads, to give two examples. In these cases, the domain variable for basal area is not the same as the is_forest_plot variable, because all plot centers in not productive forests or on forest roads get the domain_basal_area code 0 (even if they may have is_forest_plot=1).

Adrian's advice

Think at first about which plots get the 0 code.

New tree species list

Annemarie Bastrup-Birk is in charge of updating the tree species list. Each time that a main tree species is missing for one country, the country informs Annemarie and then the new tree species list is added to the Eforest list.

In the future it should be specified that if you click on the genus it corresponds to all of the species included in this genus. The genus should not only contain the “remain” tree species. It should be feasible if the list is hierarchical (to be confirmed).

Cycle

This is just an additional information. If you have a rolling system this information is not so relevant. Just provide the last completed years.

The cycle is important to put strata together but it doesn't carry any information.

Strata

The countries will be asked to provide the country area (total area used for NFI, NUTS 0). The differences between the GIS layer and the country strata will be showed. For the Nordic countries there is the special case of inland waters.

SC3 timetable

It would be useful to postpone the end of the SC3 because we will have to do a third submission. Moreover the 1x1 Inspire grids are not available from the JRC.

Third submission deadline: mid-April.

SC5 timetable

The SC5 timetable will be sent to all the new countries. The submission deadline is end of April. The necessary documents will be prepared this week.

Presentation available on the Eforest website.

Statistical weight

Normally every plot has the same weight by stratum. The countries should deliver separate strata for different sampling grid densities and if the strata sizes are known. If the grid density (sampling design) is the same for the whole stratum, all the plots get the same weight. If not, the country has to provide different statistical weights.

Adrian Lanz explained the use of the weight variable in the system:

$\text{stratum area} / \text{number of plots} = \text{represented area} / \text{plot} = \text{weight}$

This weight explanation is correct if all the plots have the same weight (inclusion probability) inside the strata. Countries do not have to (but may) provide the represented area as the weight. In most cases (equal probabilities of plot selection) you can set the weight variable to 1.

We have 3 different options, the countries can provide:

- The GIS layer for the strata
- The area of strata
- The weight of the plot

The GIS layer solution is skipped for the moment because it will be more difficult to implement it on the platform. In addition there will be boundary problems due to strata overlaying among countries.

Either the country provides only one stratum and the weight is not the same for all the plots inside the stratum, or the country chooses to provide several strata with the same weight for all the plot in each stratum.

Deliverables

Jean-Luc Cousin presented the deliverables and the methodology to produce them. The raw database is not accessible by the JRC. The aggregated database was presented.

Presentation available on the Eforest website.

For the static maps:

Decisions on deliverables:

- Plot location: display the cells and not the plots
- Condition for static maps: add a new category: no information when domain forest = -1
- Tree species groups: don't use the statistical weight to distinguish between majority of broadleaves or conifers. We need only a condition on the domain basal area.

Interactive tool = aggregation tool. The web services are linked to the aggregated database. The “Visualize Harmonized Data” part of the E-forest platform will be renamed in “Visualize Aggregated Data”.

Benoit Pesty made an online demonstration of the E-forest platform.

SC5 Pre-study on the qualification of JRC forest layers

Jean-Luc Cousin briefly presented the SC5 pre-study, the difference between the layer 1990 and the layer 2006, the variables to provide, etc. Each country had the Wednesday evening to read the JRC documents: “Validation of JRC Forest Layer 1990” and “Validation of JRC Forest Layer 2006”.

Presentation available on the Eforest website.

Then a tour de table was made to have a first feedback of available variables and possible involvement of each country (Table1).

At that level a first rough estimation of this contract should be between 100 000 and 150 000 € depending on the number of countries involved and money available at the JRC level.

Conclusions

- We will focus on these variables: forest/non-forest, forest types and partitioning plot (other information seems not relevant to evaluate the JRC forest layers).
- There will be no link with the Plot ID provided in the E-forest platform.
- The uncertainty for the variables is not a relevant request from our point of view. It will not be provided.
- Other variables require more work, i.e. more money.

Table 1. Available variables and SC6 participation

	Countries															
	AT	CH	CZ	DE	DK	ES	FI	FR	GB	HU	IT	LV	NO	PT	RO	SE
Forest/non-forest	+			+		+				+		+				
Forest Types (% Broadleaves, Conifers)	+ for upper storey	+ for upper storey	+ for upper storey	+ for global crown cover		+	+	+ for upper storey		+ for global crown cover	+ for upper storey	+			+	
Crown Cover (data coming from field)	+	+ and/or aerial photos		+												
Tree Height (data coming from field)	+	+	+	+	++	+	+	+		+					+	
Partitioning Plot								+						?		
Distance to Forest Boundary	++	++	++	++		++	++	++		++	++	++		++	Up to 25 m	Up to 25 m
SC6 Participation	?	?	Yes	?	?	?	Yes If money available			?	?	Yes If money available		?	?	?

Legend:

Information available

Information not available

+ Additional work needed: data analysis

++ Additional work needed: different data sources should be combined

Countries not attending the meeting

Specific Contract 7

Adrian Lanz presented some ideas for a SC7 on estimation procedures.

Presentation available on the Eforest website.

The discussion started with the emails between the Finnish NFI (E. Tomppo and K. Korhonen) and the Permanent members (A. Lanz, K. Schadauer, A. Bastrup-Birk and C. Vidal).

The decision to implement such estimators in the E-forest platform should reveal a problem if the estimation would differ from the official national statistics. It was acted that NUTS information should be delivered by countries to ensure consistency and the Eforest estimation should only be used for other purposes.

To validate the estimator we could undertake a cross-check with national processes. This could be foreseen in the SC7 proposal. The countries will not have to check the whole territory. They could use some particular areas to cross-check the estimator (e.g. strata boundaries).

One output of these SC7 estimation procedures could be scientific articles.

Conclusions

- National figures/estimates are provided by the countries to check aggregated estimates with NFI statistics.
- Different approaches could be evaluated in SC7: centralized and decentralized systems. The two approaches could be merged: the countries (especially Nordic countries) able to provide estimation very quickly can do it. In the other case the countries will use the E-forest platform. But this decentralized approach is for the future. The EFICP based on the same approach was not really successful, so we think that countries are not ready for the moment.
- In SC3/SC5 the countries have to validate the aggregation results even if they are rough results/estimations without variance. This will demonstrate to the JRC that we need estimates to produce better and sound results.

The discussion will be lunched during the ENFIN meeting (April 21st-22nd, 2010 in Copenhagen). Should we share an estimation module inside the ENFIN group? The ENFIN decisions should come after SC7 because it will depend on the estimation efficiency.

- Everybody agreed to propose the SC7 to the JRC. Some work remains to prepare the proposal. For the moment the SC7 participating countries are: AT, CH, FI, FR and SE.

Each country will answer by email if they want to be involved: in estimator building and/or in use/validation of estimates.

Specific Contract 4

The first SC4 proposal was about biomass estimation. But since the JRC didn't accept our proposal they preferred to change biomass for standing volume.

Conclusions:

- The volume issue was discussed during 3 years inside COST Action E43. It takes a lot of work before reaching a harmonized volume at the European scale. If we do it with the JRC conditions (few money and few time) it will be quick and dirty.
- For the moment the JRC have only information about the basal area. But the volume is the most interesting NFI variable. So, we should start some study about volume.
- A case study could be undertaken only for some countries. SC4 is not our priority.

ENFIN strategy

Klemens Schadauer presented the ENFIN strategy (Figure 1).

The next ENFIN priorities are:

- FP7 with some partners. Two different subject were proposed:
 - o FP7 with GMES/ESA to work on remote sensing
 - o Working on biomass

Each NFI can send an email to Klemens to know in which FP7 each NFI is already involved and how they are involved (only data provider, leader, etc.)

- UNFCCC & REDD with a strong focus on monitoring. We could work as an ENFIN expert group to provide our expertise when building up new inventories in countries concerned by REDD.
- More visibility should be given to the ENFIN group. With a best ENFIN structure we would be more than good providers of information. What about having a formal status? Problem: it is costly. We could get support from national authorities (Ministries) to build a better ENFIN visibility (status, structure, etc.). We need some resources if we want to share national experiences, e.g. on NATURA2000.
- It could be more efficient to have a “contact” person from ENFIN for each international organizations. It is not so easy because sometimes national contacts are not the NFIs.

All these points should be discussed during the ENFIN meeting in Copenhagen. The priorities should be defined in the Memorandum of Understanding in line with the Forest Protection Conference in Segovia feedback.

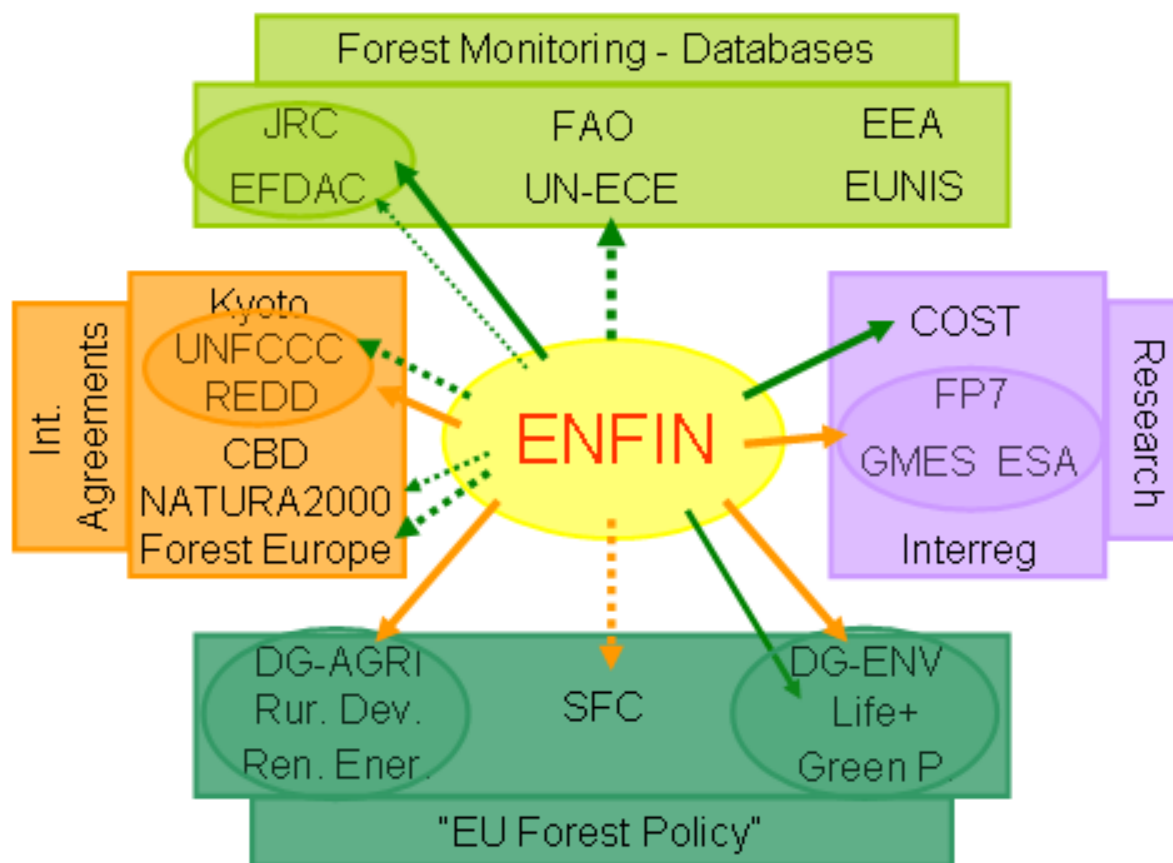


Figure 1. ENFIN strategy

European Forest Types

The French NFI will organize a EFT workshop on May 19 to 21 in Bordeaux to highlight NFIs difficulties when applying EFTs. We would like to share experiences from different countries, since each country has encountered different problems when trying to apply the EFTs.

If you didn't do it already, please send an email to Camille Bonhomme to specify if your country would like to be part of this workshop as presenter and which specific problematic points in your country will be presented.