

## **FutMon: C1-GV-15IT Action – Questionnaire**

*Participating Countries:* Austria, Belgium (Flandres), Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, The Netherlands, Poland, Romania, Slovakia, Slovenia, Spain, Sweden, United Kingdom.

### **General information**

The present document is intended as a basic guide supporting the filling of the questionnaire on ground vegetation, as scheduled in Action C1-GV-15(IT) of the FutMon project; the action includes scientific support to the ongoing monitoring activities, mainly through expert meetings and update of monitoring methods; it is intended to provide coordination, development and implementation of quality control and quality assurance (QA/QC) procedures also by means of field trans-national inter-comparison course.

The questionnaire, by collecting all relevant information on each National Method, is aimed: to supply correct basis for the organisation of the field course, to start the process of harmonisation of definitions and procedures from the ICP-Forests GV Manual, and to further develop adequate recommendations on QA/QC issues.

The questionnaire is intended as a precise documentation to be consciously filled, assuming that all questions are clear (if not, do not hesitate to contact us, before filling it).



**PLEASE RETURN US THIS QUESTIONNAIRE BY 31 May 2009 TO:**

[conecofor@corpoforestale.it](mailto:conecofor@corpoforestale.it)

### **General rules**

- The questionnaire file must be named GVQ adding the alpha-numeric code of the Country (XX). When additional copies must be compiled (to fill some sections due to plot/method diversification), you must save each copy by adding a progressive Arabic numeration (n) to the Country code (GVQXXn).
- Please do not answer the questions by referring to other pre-released information.
- Multiple-choice questions allow more than one answer (except for binary, as yes/no).
- Additional information, schemes, drawings and details can be added as attached files (following “National methods for ground vegetation assessments”, Laurence Bourjot in: <http://www.icp-forests.org/EPbiodiv.htm>) and named as “GVQschemeXX”.
- Terminology must follow Chapter 8 of the related ICP Forests Manual).



**Identification**

Responsible person for the compilation of the questionnaire:

<b>Name</b>	
<b>Affiliation</b>	
<b>Address</b>	
<b>Phone</b>	
<b>Fax</b>	
<b>E-mail</b>	



**General questions**

1) Does your protocol of Ground Vegetation assessment include the survey of:

- herbs
- shrubs
- tree
- terricolous mosses
- terricolous lichens

2) Which sampling strategy has been chosen?

- Assessment over large areas (sampling units  $\geq 100 \text{ m}^2$ )
- Population dynamics on smaller areas (sampling units  $\leq 100 \text{ m}^2$ )
- Other, please specify:

3) In case of more than one strategy, they are applied:

- On each Level II plot
- On different subsets of plots, please specify:

4) How many sampling units are used on each plot to reach the Common Sampling Area surface (CSA,  $400 \text{ m}^2$ )?



**Sampling design** please fill-in separate files, as many as the different designs adopted

5) Number of plots to which the following design is currently implemented

6) Shape and dimensions of sampling units (SUs)

- Square            x            m
- Radius            m
- Linear            basic unit            m; total extension            m

SU surface:

- Depends on the terrain slope (projection)
- Directly measured parallel to the terrain

7) Are the sampling units contiguous?

- yes
- no

If no,

specify the distance between each other            m

or, briefly describe other cases:

**8)** Are the SUs placed within the Level II plot or in its buffer zone?

- yes  
 no  
 partially, please specify:

**9)** Does your protocol exclude heterogeneities (boulder and cliffs, tracks and paths, fire places, streams and pounds, ditches and channels, peaty pools, etc.)?

- yes  
 no

**10)** Do you record the additional species list in the plot (outside the SUs)?

- yes  
 no

**11)** Were permanent markings placed at the sampling units?

- yes  
 no

If yes,

how many markings:

and, where are the markings situated?

- along the boundaries  
 on the corners  
 in the centre  
 other, please specify:



### **Measurement of species abundance or cover**

**12)** Scale used for species abundance or coverage in the field

- Braun-Blanquet  
 Barkman et al.  
 Schmidt  
 Londo  
 % scale  
 other (please specify)

**13)** If you use small sampling units (in general under 10 m<sup>2</sup>), are they divided in smaller subunits?

- yes  
 no

If yes,

specify the dimension of each sub units      x      cm

and, which type of estimate do you use in this case

- presence-absence assessment  
 Braun-Blanquet  
 Barkman et al.  
 Schmidt  
 Londo  
 % scale  
 other (please specify)

**14)** Do you use line intercept?

- yes  
 no

If yes,

which technique do you use?

## Project FutMon (Reg. EC n. 614/2007 LIFE+)

Action C1-GV-15(IT): *Quality and expertise within ground vegetation assessments*

15) How you combine - integrate assessed specific abundances into a single value on plot level?

Methods:	Presence	Coverage / Abundance	Remarks max 40 digits)
Applying mathematical mean per species	NO	<input type="checkbox"/> *	
Determination of median value per species	<input type="checkbox"/>	<input type="checkbox"/>	
Addition	<input type="checkbox"/> *	NO	
Maximisation	<input type="checkbox"/>	<input type="checkbox"/>	
	<input type="checkbox"/>	<input type="checkbox"/>	

NO = Not possible, \*recommended

16) Which additional information, such as sociability or vitality, do you record for each plant species? (please specify)

17) Do you additionally record saplings and seedlings?

yes

no

If yes,

which technique is used? (counts, cover, additional sampling, etc.)



### Layers to be recorded

18) Which techniques do you use to estimate the average height and the global percentage cover for each layers?

- height

- coverage

- other combinations (specify)



### Mapping and pictures

19) Were maps of understory made for documentation purposes?

yes

no

If yes, how? (scale, techniques, etc.)

20) Were maps used in assessment?

yes

no

If yes, how?

21) Were photographs made for documentation purposes?

yes

no

If yes, how? (scale, techniques, etc.)

22) Were photographs used in assessments?

yes

no

If yes, how?



## ate of observation

**23)** How often is vegetation assessed trough the year? times, namely:

- Winter (between / and / )  
 Spring (between / and / )  
 Summer (between / and / )  
 Autumn (between / and / )  
 Other (between / and / )

## Species studied

**24)** Do you record non-terricolous vascular species, cryptogames or fungi?

- yes  
 no

If yes, how?

**25)** Do you separately record unidentified species (i.e. not reaching the *Genus* level)?

- yes  
 no

**26)** Are specimen collected and preserved in a herbarium?

- yes  
 no

If yes,  
specify which herbarium?

**27)** Which system is used to give species names in the field? (specify the flora or the species list used)

<b>Species reference system:</b>	<b>vascular plants</b>	<b>mosses</b>	<b>lichens</b>
Local name using the following flora:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Local codes using the following species list:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Latin names using the following flora:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(Inter)national codes using the following species list:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Latin names using <i>Flora Europaea</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Latin names using <u>ICP-Forests code lists</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
International codes using <u>ICP-Forests code lists</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**28)** In case of species not yet included in the adopted ICP-Forests code list of vascular plants, mosses and lichens, do you usually report to Expert Panel?

- yes  
 no

**29)** Do you record species encountered in special places (rocks, tree stumps, tracks and paths, dead wood, etc.)?

- yes  
 no

If yes, how?



**Project FutMon (Reg. EC n. 614/2007 LIFE+)**

*Action C1-GV-15(IT): Quality and expertise within ground vegetation assessments*

**38) Were all teams trained?**

- yes  
 no

If yes, how often?

**39) How many hours a team meanly spend to complete a Level II plot GV survey?**

to    hrs.

**40) Were some field-control plots used during the assessment period?**

- yes  
 no

If yes, how often?

**41) How were the control plots chosen in the field?**

And, how many?

Which visual estimate do you check in this case?

- species presence-absence assessment  
 Braun-Blanquet  
 Barkman et al.  
 Schmidt  
 Londo  
 % scale  
 other (please specify)

**42) How were the data recorded in the field?**

- field computer  
 on paper using standards forms  
 other:

**43) If data were recorded on paper, how was the information entered in the computer?**

	By (part of) the field crew	By other staff
Within 24 hours	<input type="checkbox"/>	<input type="checkbox"/>
Within a week	<input type="checkbox"/>	<input type="checkbox"/>
Within a month	<input type="checkbox"/>	<input type="checkbox"/>
Later	<input type="checkbox"/>	<input type="checkbox"/>

**44) What checks were made during or after the data entry?**

	Yes/no	P/M*	Check of/with
Valid species name	Yes/no	P/M	
Valid species code	Yes/no	P/M	
Valid height for layer	Yes/no	P/M	

\*Check built in the Programme (P) or carried out Manually (M)

**45) How are the Flora Europaea codes entered/added?**

- not needed, right codes were entered in the field  
 conversion programme using the (inter)national codes of the assessment  
 conversion programme using the (inter)national Latin names of the assessment  
 conversion programme using the local name of the assessment  
 conversion programme using the local codes of the assessment  
 other:



## **ata storage and submission**

**46)** Are the final data set stored in a permanent way?

- yes  
 no

If yes, how:

- hard copy (paper)  
 CD-ROM  
 hard disk  
 data-base  
 Other:

**47)** Data storage of final data includes remarks on:

- training/calibration  
 data quality control  
 plausibility check  
 permanent markings of sampling units  
 other:

**48)** Which Institution or Body is charged of keeping the stored final GV data? (on each case of the question n. 46)

**49)** Are the field/original data stored in permanent way?

- yes  
 no

If yes, how:

- hard copy (paper)  
 CD-ROM  
 hard disk  
 data-base  
 Other:

**50)** Which Institution or Body is charged of keeping the stored field/original GV data? (on each case of the question n. 49)

**51)** Are the final data transmitted to the National Focal Centre ready for the submission (say, PLV and VEM formatted)?

- yes  
 no

If yes,

are the VEM and PLV forms produced directly by your data-base (if any)?

- yes  
 no

**52)** In case of errors after submission checks, is there any feedback by National Focal Centre to the responsible of GV?

- yes  
 no