

C1-Dep-22(SI) action

Daniel Žlindra



13th Expert Panel Meeting on Deposition



Gozdarski inštitut Slovenije
Slovenian Forestry Institute

Tampere, Finland, February 19th 2010

Milestones:

- 9. 3. 2009: e-mail of invitation to join the action
-> answeres from all (24) countries until 6. 5. 2009.
- 31. 3. 2009: sent “Guidelines” to contact persons by e-mail.
- 11. 5. 2009: sent “Harmonized sampler” to contact persons by e-mail.
- 9. 6. 2009: the questionnaire about set-up of the samplers was sent via e-mail
-> answeres from 13 associated beneficiaries + 1
- dec. 2009: asking the contact persons to send the field set-up of the samplers -> 5 responses (2 with photo only)



	Beneficiary no.	Responsible person	Contact person	Institute	Country	Order
1	2	Dr. M. Neumann	Stefan Smidt	Bundesforschungszentrum für Wald, Naturgefahren und Landschaft	Austria	Yes
2	3	Peter Roskams	Arne Verstraeten	Research Institute for Nature and Forest	Belgium	Yes
3	5	Dimitar Vergiev	Genoveva Popova	ExEA at the Ministry of environment and water	Bulgaria	No
4	8	Lars Vesterdal	Karin Hansen	University of Copenhagen, Forest & Landscape Denmark	Denmark	Yes
5	9	Endla Asi	Endla Asi	Centre of Forest Protection and Silviculture	Estonia	Yes
6	10	John Derome	Antti-Jussi Lindroos	Finnish Forest Research Institute	Finland	Yes
7	11	Erwin ULRICH	Erwin ULRICH, Manuel NICOLAS	Office National des Forêts	France	Yes
8	14	Fiona Harrington	Fiona Harrington	Coillte	Ireland	No
9	18	Paweł Lech	Anna Kowalska	Forest Research Institute	Poland	Yes
10	20	Barbu Ion	Barbu Ion	Forest Research and Management Institute	Romania	No
11	23	Gerardo Sanchez	Paloma García	Direccion General de Medio Natural y Politica Forestal	Spain	Yes
12	30	Dr. Henning Meesenburg	Mascha Albrecht	Northwest German Forest Research Station	Germany	Yes
13	38	Andis Lazdiņš	Andis Bārdulis	Latvian State Forestry Research Institute "Silava"	Latvia	No
14	40	Aldo Marchetto	Aldo Marchetto	CNR ISE	Italy	Yes
15	7	Bohumír Lomský	Zora Lachmanová	Forestry and Game Management Research Institute	Czech Republic	Yes
16	26	Sue Benham	Sue Benham	Forest Research	GB	Yes
17	6	Aristarchou Aristarchos	Aristarchou Aristarchos	Department of Forests	Cyprus	No
18	13	Dr.Sitkey Judit	Dr.Sitkey Judit	Forest Research Institute	Hungary	Yes
19	22	Daniel Žlindra	Daniel Žlindra	Slovenian Forestry Institute	Slovenia	Yes
20	16	Andrius Kuliešis	Ricardas Beniusis	State Forest Survey Service	Lithuania	No
21	21	Pavel Pavlenda	Slavka Tothova	National Forest Centre Slovakia	Slovakia	Yes
22	12	Panagiotis Mixopoulos	Panagiotis Mixopoulos	Hellenic Ministry of Rural Development and Foods, General Directorate for Development and Protection of Forests and Natural Environment,	Greece	Yes
23	17	A. Bleeker	A. Bleeker	ECN	The Netherlands	No
24	25	Gunilla Pihl-Karlsson	Gunilla Pihl-Karlsson	Sveriges lantbruksuniversitet	Sweden	No
						16



Problems (I):

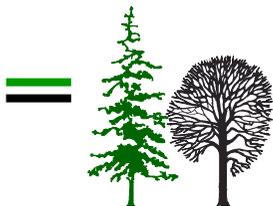
- adjustment (harmonizing) of the opinions about harmonized sampler was not finished in the EPD Hamburg or
- harmonizing was too enthusiastic (e. g. sampling model in the field)
 - therefore a lot of details has to be made on our own (Slovenia) and a consequence was sometimes stormy discussion about them.

e.g.: bird ring



Problems (II):

- the plot design and sampling design differs from country to country,
 - therefore we proposed a national design (Guidelines, 31.3.2009) with fitting the number of 30 samplers to the national number of samplers (In Slovenia we use 10 gutters for throughfall, that means 3 funnels per gutter will be installed in their near.

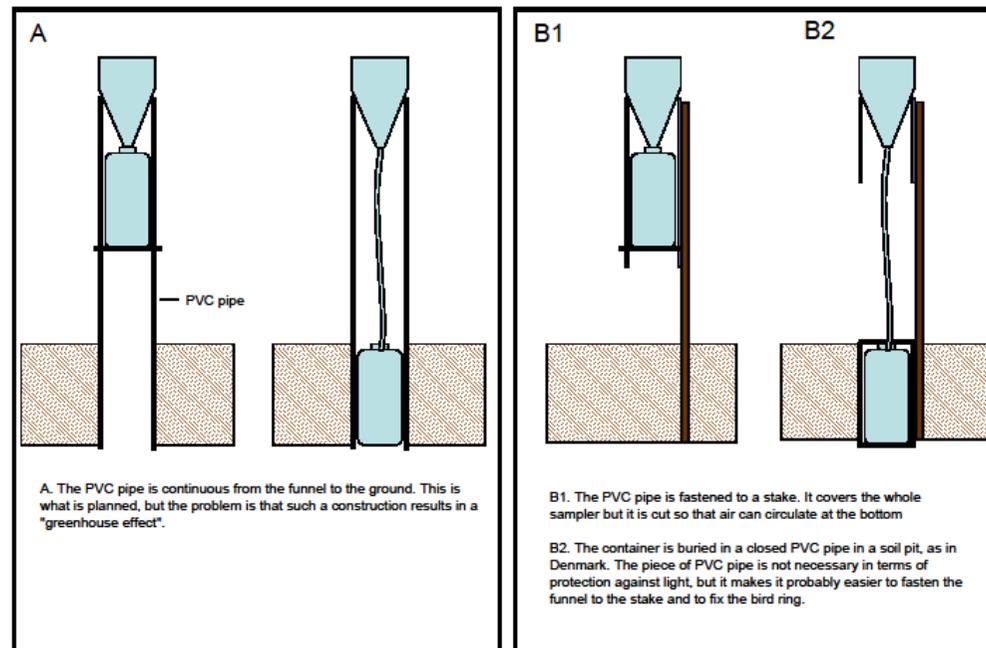


Problems (III):

- Options of the position of the container:
 - directly connected to the funnel, protected by sunlight with the PVC pipe, serving as the support,
 - directly connected to the funnel, protected by sunlight by PVC pipe, all together fixed in the air with the stick,
 - silicone tube connects funnel and container, which is held in the ground. PVC pipe serving as support,
 - silicone tube connects funnel and container, which is held in the ground. Funnel is supported by stick.
 - silicone tube connects funnel and container, which is held in the ground. PVC pipe serving as support is in the middle cut of to a middle, serving as support for the funnel and protection for direct sunlight to the tube as long as the uncut part of the pipe is oriented to the south.

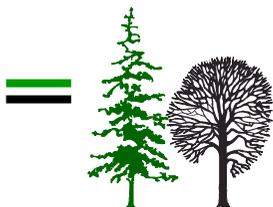


Additional problem in the case of unprotected silicone tube: it could be very likely eaten by wild animals (mice etc.), where present.



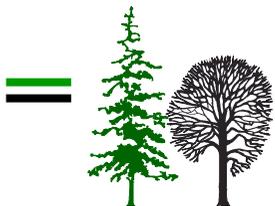
AT, 19.05.2009

Figure by A. Thimonier



Field protocols (I):

- the harmonized samplers (HS) should cover the same reference area as already installed national samplers (NS) do:
if the NS are installed in the buffer zone of the plot, HS should be installed there too and if NS are installed in the plot the same should be valid for HS.
- the arrangement of the standardized samplers should follow the arrangement of the national samplers (judgment design, systematic-random, subplots, etc.):
Just because of the first topic, this one is logical consequence since the samplers should cover the same reference area.



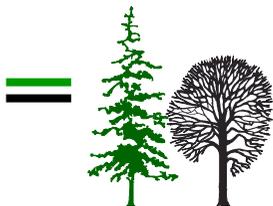
Field protocols (II):

- the volumes should be measured separately for each collector,
- From the minutes of the EPD Hamburg: the number of samples for chemical analysis is one for throughfall and one for bulk, **but:**
we recommend that the number of subsamples for chemical analysis should be the same as it is in national system (e.g.: in Slovenia we have 2 throughfall and 2 bulk samples for chemical analysis. We should pure 15 and 15 TF samples together respectively. For bulk two of three bulk samples will be used for analysis – the same procedure as now;
- collectors should be numbered and the same collectors should contribute to the same subsample in all sampling periods;



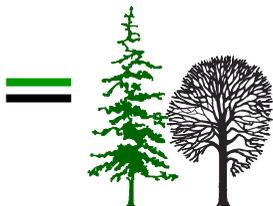
Obligations of the participants (I):

- after the installation of the samplers we ask all the associated beneficiaries to send us the scheme of positioning of the national and harmonized samplers on the plot with the details of sampling design,
- recommendation: the plot, chosen for the installation of the standardized samplers should be homogenous, typical and representative for the country, if possible: we have in mind that the reduction of the costs is also at great meaning – very accessible plots have priorities. The forest stand should be preserved and undisturbed as much as possible.



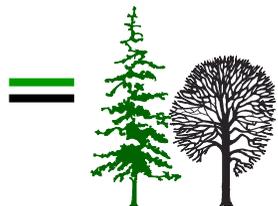
Obligations of the participants (II):

- data from the time period, when parallel sampling of standardized and national samplers was performed, shall be submitted beside to the coordinating beneficiary also to the associated beneficiary 22 (Slovenia),
- every feedback about harmonized sampler (or connected topics) is very much desired.



Reporting:

- special need to distinguish between these two types of data in all three deposition files (PLD, DEM and DEO) which were prepared by FutMon database managers.
- reporting should be done by the end of October 2010.
- evaluation and reporting to the coordinating beneficiary by the end of the year 2010.



Future work:

- meetings for harmonizing further (field methods, field protocols, and first of all plot design – is it really feasible?)
- discussing about the results of this demonstration action when C1-Dep-22(SI) report will be done,
- ring test with water samples is very important for this group (QA in Laboratory)
- at the final end: summary meeting; is it reasonable (is there a common will) to continue in this direction?

