

LUCAS 2015 (Land Use / Cover Area Frame Survey)

Technical reference document C2
Field Form and Ground Document (template)



Identification

A	Surveyor ID:	B	Point ID:
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Access to point

1	Date:	7	Type of observation: 1 <input type="checkbox"/> Field survey, point visible, 0-100m to pt 2 <input type="checkbox"/> Field survey, point visible, >100 m to pt 3 <input type="checkbox"/> Photo-interpretation, point not visible 4 <input type="checkbox"/> Point not observed. PI not possible 5 <input type="checkbox"/> Marine sea 6 <input type="checkbox"/> Out of national territory	12	Elevation (meters): (N.R. = 8888)
2	Start time: (HH:MM)				
3	End time: (HH:MM)	8	GPS coordinate system: 1 <input type="checkbox"/> WGS84 2 <input type="checkbox"/> Problem with signal 8 <input type="checkbox"/> N.R.	13	Precision (meters): (N.R. = 8888)
4	Car park Latitude: (N.R. = 88,888888)	9	Point Latitude: (N.R. = 88,888888)	14	Distance to the point: (N.R. = 8888)
5	Car park Longitude E/W: <input type="checkbox"/> E <input type="checkbox"/> W <input type="checkbox"/> 8	10	Point Longitude E/W: <input type="checkbox"/> E <input type="checkbox"/> W <input type="checkbox"/> 8		
6	Car park Longitude: (N.R. = 88,888888)	11	Point Longitude: (N.R. = 88,888888)		

Comments

C	Description of the way to the point (previous campaign)
15	Description of the way to the point [structured comments / other]

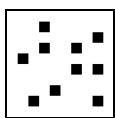
Point observation

16	Remarks about point observation [structured comments / other] <i>(why observation not at the point, ground document not clear, etc.)</i>
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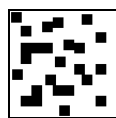
Land cover and land use

17	Direction: 1 <input type="checkbox"/> on the point 2 <input type="checkbox"/> north 3 <input type="checkbox"/> east 8 <input type="checkbox"/> N.R.	18	Radius: 1 <input type="checkbox"/> 1.5 m 2 <input type="checkbox"/> 20 m 8 <input type="checkbox"/> N.R.	19	Plot area (in ha): 1 <input type="checkbox"/> area < 0.5 2 <input type="checkbox"/> 0.5 ≤ area < 1 3 <input type="checkbox"/> 1 ≤ area < 10 4 <input type="checkbox"/> area ≥ 10 8 <input type="checkbox"/> N.R.		
20	LC1:	23	LC2:	29	LU1:	32	LU2:
21	LC1 plant species:	24	LC2 plant species:	30	LU1 land use type:	33	LU2 land use type:
22	Percentage of land coverage (%) LC1: 1 <input type="checkbox"/> %LC1 < 5 2 <input type="checkbox"/> 5 ≤ %LC1 < 10 3 <input type="checkbox"/> 10 ≤ %LC1 < 25 4 <input type="checkbox"/> 25 ≤ %LC1 < 50 5 <input type="checkbox"/> 50 ≤ %LC1 < 75 6 <input type="checkbox"/> 75 ≤ %LC1 < 90 7 <input type="checkbox"/> %LC1 ≥ 90 8 <input type="checkbox"/> N.R.	25	Percentage of land coverage (%) LC2: 1 <input type="checkbox"/> %LC2 < 5 2 <input type="checkbox"/> 5 ≤ %LC2 < 10 3 <input type="checkbox"/> 10 ≤ %LC2 < 25 4 <input type="checkbox"/> 25 ≤ %LC2 < 50 5 <input type="checkbox"/> 50 ≤ %LC2 < 75 6 <input type="checkbox"/> 75 ≤ %LC2 < 90 7 <input type="checkbox"/> %LC2 ≥ 90 8 <input type="checkbox"/> N.R.	31	Percentage of land use (%) LU1: 1 <input type="checkbox"/> %LU1 < 5 2 <input type="checkbox"/> 5 ≤ %LU1 < 10 3 <input type="checkbox"/> 10 ≤ %LU1 < 25 4 <input type="checkbox"/> 25 ≤ %LU1 < 50 5 <input type="checkbox"/> 50 ≤ %LU1 < 75 6 <input type="checkbox"/> 75 ≤ %LU1 < 90 7 <input type="checkbox"/> %LU1 ≥ 90 8 <input type="checkbox"/> N.R.	34	Percentage of land use (%) LU2: 1 <input type="checkbox"/> %LU2 < 5 2 <input type="checkbox"/> 5 ≤ %LU2 < 10 3 <input type="checkbox"/> 10 ≤ %LU2 < 25 4 <input type="checkbox"/> 25 ≤ %LU2 < 50 5 <input type="checkbox"/> 50 ≤ %LU2 < 75 6 <input type="checkbox"/> 75 ≤ %LU2 < 90 7 <input type="checkbox"/> %LU2 ≥ 90 8 <input type="checkbox"/> N.R.
If LC CXX, or D10 or E10 & area size ≥ 0.5 ha				If height of trees at maturity above 5 m			
26	Height of trees at the moment of survey 1 <input type="checkbox"/> < 5 m 2 <input type="checkbox"/> ≥ 5 m 8 <input type="checkbox"/> N.R.	27	Height of trees at maturity 1 <input type="checkbox"/> < 5 m 2 <input type="checkbox"/> ≥ 5 m 8 <input type="checkbox"/> N.R.	28	Width of feature: 1 <input type="checkbox"/> < 20 m 2 <input type="checkbox"/> ≥ 20 m 8 <input type="checkbox"/> N.R.		

35	Land management: 1 <input type="checkbox"/> Visible signs of grazing 2 <input type="checkbox"/> No signs of grazing 8 <input type="checkbox"/> N.R.	36	Special status: 1 <input type="checkbox"/> Protected 2 <input type="checkbox"/> Hunting 3 <input type="checkbox"/> Protected and Hunting 4 <input type="checkbox"/> No special status 8 <input type="checkbox"/> N.R.	37	Special remark on land cover/use: 1 <input type="checkbox"/> Tilled and/or sowed 2 <input type="checkbox"/> Harvested field 3 <input type="checkbox"/> Clear cut 4 <input type="checkbox"/> Burnt area 5 <input type="checkbox"/> Fire break 6 <input type="checkbox"/> Nursery 7 <input type="checkbox"/> No Remark 8 <input type="checkbox"/> N.R. 9 <input type="checkbox"/> Temporarily dry (river bed / lake) 10 <input type="checkbox"/> Temporarily flooded
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10%



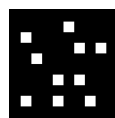
25%



50%



75%



90%

INSPIRE Pure Land Cover Classes*

	Class	Percentage (5% steps); Total = 100%
38	Coniferous forest trees	
39	Broadleaved forest trees	
40	Shrubs	
41	Herbaceous plants	
42	Lichens and mosses	
43	Consolidated (bare) surface	
44	Unconsolidated (bare) surface	
45	Other	

* Only for points with LC1=CXX, DXX, EXX or FXX

Water management*

<p>46 Presence of water management: <i>(Only if LU = U111 or U112)</i></p> <p>1 <input type="checkbox"/> Irrigation</p> <p>2 <input type="checkbox"/> Potential irrigation</p> <p>3 <input type="checkbox"/> Drainage</p> <p>4 <input type="checkbox"/> Irrigation and drainage</p> <p>5 <input type="checkbox"/> No visible water management</p> <p>8 <input type="checkbox"/> N.R.</p>	<p>48 Source of irrigation:</p> <p>1 <input type="checkbox"/> Well</p> <p>2 <input type="checkbox"/> Pond/Lake/Reservoir</p> <p>3 <input type="checkbox"/> Stream/Canal/Ditch</p> <p>4 <input type="checkbox"/> Lagoon/Wastewater</p> <p>5 <input type="checkbox"/> Other/not identifiable</p> <p>8 <input type="checkbox"/> N.R.</p>	
<p>47 Type of irrigation:</p> <p>1 <input type="checkbox"/> Gravity</p> <p>2 <input type="checkbox"/> Pressure: Sprinkler irrigation</p> <p>3 <input type="checkbox"/> Pressure: Micro-irrigation</p> <p>4 <input type="checkbox"/> Gravity/Pressure</p> <p>5 <input type="checkbox"/> Other/not identifiable</p> <p>8 <input type="checkbox"/> N.R.</p>	<p>49 Delivery System:</p> <p>1 <input type="checkbox"/> Canal</p> <p>2 <input type="checkbox"/> Ditch</p> <p>3 <input type="checkbox"/> Pipeline</p> <p>5 <input type="checkbox"/> Other/not identifiable</p> <p>8 <input type="checkbox"/> N.R.</p>	

* Assessed on the whole parcel

Soil lucas-soil@jrc.ec.europa.eu

<p>D Is this a soil point?</p> <p>1 <input type="checkbox"/> Yes</p> <p>2 <input type="checkbox"/> No</p>	<p>50 Is the soil sample taken?</p> <p>1 <input type="checkbox"/> Yes</p> <p>2 <input type="checkbox"/> Not possible</p> <p>3 <input type="checkbox"/> No, already taken</p> <p>4 <input type="checkbox"/> No sample required</p> <p>8 <input type="checkbox"/> N.R.</p>	<p>51 Soil label (if sample taken) (N.R. = 88888)</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="border: 1px solid black; width: 20px; height: 20px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px;"></div> </div>
<p>52 Can you see any sign of ploughing in the plot?</p> <p>1 <input type="checkbox"/> Yes</p> <p>2 <input type="checkbox"/> No</p> <p>8 <input type="checkbox"/> N.R.</p>	<p>53 Percentage of residual vegetation on the surface:</p> <p>1 <input type="checkbox"/> %RC < 10</p> <p>2 <input type="checkbox"/> 10 ≤ %RC < 25</p> <p>3 <input type="checkbox"/> 25 ≤ %RC < 50</p> <p>4 <input type="checkbox"/> %RC ≥ 50</p> <p>8 <input type="checkbox"/> N.R.</p>	<p>54 Percentage of stones on the surface:</p> <p>1 <input type="checkbox"/> %S < 10</p> <p>2 <input type="checkbox"/> 10 ≤ %S < 25</p> <p>3 <input type="checkbox"/> 25 ≤ %S < 50</p> <p>4 <input type="checkbox"/> %S ≥ 50</p> <p>8 <input type="checkbox"/> N.R.</p>

55	Remarks about the soil sample [structured comments / other]
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Transect

E	Transect (previous campaign)
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56	Transect	01	02	03	04	05	06	07	08	09	10	11	12
	O → → : LC codes												
	Transect	13	14	15	16	17	19	19	20	21	22	23	24
	O → → : LC codes												
	Transect	25	26	27	28	29	30	31	32	33	34	35	36
	O → → : LC codes												

57	Remarks about the transect [structured comments / other] <i>(e.g. reasons for premature end of transect interpretation, PI)</i>
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Photos

	Type	Taken	Not taken	Not relevant	Photo ID	To be anonymised
58	Point	1 <input type="checkbox"/>	2 <input type="checkbox"/>	8 <input type="checkbox"/>		<input type="checkbox"/>
59	Crop – Cover	1 <input type="checkbox"/>	2 <input type="checkbox"/>	8 <input type="checkbox"/>		<input type="checkbox"/>
60	North	1 <input type="checkbox"/>	2 <input type="checkbox"/>	8 <input type="checkbox"/>		<input type="checkbox"/>
61	East	1 <input type="checkbox"/>	2 <input type="checkbox"/>	8 <input type="checkbox"/>		<input type="checkbox"/>
62	South	1 <input type="checkbox"/>	2 <input type="checkbox"/>	8 <input type="checkbox"/>		<input type="checkbox"/>
63	West	1 <input type="checkbox"/>	2 <input type="checkbox"/>	8 <input type="checkbox"/>		<input type="checkbox"/>
64	Irrigation	1 <input type="checkbox"/>	2 <input type="checkbox"/>	8 <input type="checkbox"/>		<input type="checkbox"/>
65	Transect	1 <input type="checkbox"/>	2 <input type="checkbox"/>	8 <input type="checkbox"/>		<input type="checkbox"/>
66	Soil	1 <input type="checkbox"/>	2 <input type="checkbox"/>	8 <input type="checkbox"/>		<input type="checkbox"/>

Do not forget to take the soil, irrigation and transect end pictures!

Additional photo(s)

67	Type	Photo ID	To be anonymised
			<input type="checkbox"/>
			<input type="checkbox"/>
			<input type="checkbox"/>
			<input type="checkbox"/>
			<input type="checkbox"/>

68 **Remarks about the photos [structured comments / other]**

Do not forget to note End time of the survey!

Ground Document

Location map (incl. point marker + point id + numerical and graphical scale + north arrow + different marker for points belonging to soil triplets). © if applicable		Point ID [Point ID triplet 2] [Point ID triplet 3] Latitude (WGS84) Longitude (WGS84) PC Date PC Distance PC X PC Y PC Observation type PC Direction PC Special Remark PC LC1 PC LC2 PC LU1 PC LU2	
		PC Point Photo	
PC North Photo	PC East Photo	PC South Photo	PC West Photo
Orthophoto (overview) (incl. point marker + numerical and graphical scale + 1ha reference + 10 ha reference + north arrow + year + projection + previous GPS track). © if applicable			
Recomended scale of 1:5.000 and coverage of 700x700m (49ha)			
Transect + Orthophoto detail (including regular and extended window circles + transect line + 50m distance intervals)			