



European Topic Center
Terrestrial Environment

Under contract with the

European Environment Agency



CLC2000 Serbia

Report, 4th Verification

**Institute of Geodesy, Cartography and Remote Sensing
(FÖMI)**

5 October 2006

Ref.: Verification Mission Report 6/2006

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1. Background and preparations

The report on 3rd CLC2000 verification in Serbia stated: Due to the unexpectedly poor quality of the CLC-change database, one more thematic check is proposed. Following the corrections ... a part of the database (selected later by the CLC2000 TT) has to be sent for remote verification.

The above plan have been realised in the following way:

- 10 working units (CLC2000 and CLC-change) have been requested to send to FÖMI. 7 wu have been rejected, 2 have been conditionally accepted and one accepted during the previous verification (Table 1).
- The corresponding Landsat TM images also have been requested (IMAGE90 and IMAGE2000).
- The working units have been checked in the usual way using by InterChange software. Control was focusing mainly on changes.
- As the main problem during the 3rd verification was the large number of no-change polygons (commission errors), checking mostly meant to see the validity of change polygons.

2. Contributors

From the Serbian national team, Dragutin Protic, technical manager has made the data available.

From the CLC2000 Technical Team Robert Pataki has worked on the data preparation, and George Büttner has made the verification.

3. Results

Significant improvement was found during the checking process, and all map-sheets was accepted. We can conclude, that now Serbia has not only good quality CLC2000 database, but also good quality CLC-change database.

Table 1. Summary results of 4th verification, Serbia

Working units	CLC-change database, 3rd verification	CLC-change database, 4th verification
Subotica	Rejected	Accepted
Backa Topola	Rejected	Accepted
Vrsac	Rejected	Accepted
Bijeljina	Rejected	Accepted
Beograd	Conditionally accepted	Accepted
Zvornik	Rejected	Accepted
Bor	Rejected	Accepted
Cacak	Conditionally accepted	Accepted
Kursumlija	Rejected	Accepted
Leskovac	Accepted	Accepted

Table 2 shows some quantitative data regarding the verification.

Table 2: Some quantitative data regarding the 4th verification.

Working units	Number of change polygons	Number of remarks on changes (incl. missing changes)	Number of additional remarks in CLC2000
Subotica	73	1	1
Backa Topola	21	1	3
Vrsac	36	4	2
Bijeljina	96	2	0
Beograd	87	1	2
Zvornik	12	0	4
Bor	16	2	2
Cacak	42	1	0
Kursumlija	90	2	
Leskovac	22	0	0
Total:	495	14	14

The small number of remarks relative to the total number of change polygons (3 %) confirms the improved quality of the change database (*).

4. Summary of actions to be undertaken

Remarks produced during this last verification are sent back to the National Team for correction. After that the seamless databases (CLC2000 and CLC-change) have to be produced. CLC90 is to be constructed in a GIS – by using CLC2000 and CLC-change. Polygons, getting smaller than 25 ha have to be intelligently generalised.

Deadline for sending deliverables (seamless CLC2000, CLC-Change and CLC90 for Serbia and Montenegro) to ETC-TE: 15 October 2006.

5. Annex

Shapefiles including remarks generated during the verification (sent separately)

(*) Of course this is not equal to the error rate of the change database.