

# THE STORY OF THE LAND USE MAP OF EUROPE

Ernő CSÁTI

Retired Head of the Geocartographic Research Department  
Institute of Surveying and Remote Sensing, Budapest



## EURÓPA FÖLDHASZNOSÍTÁSI TÉRKÉPE

### Összefoglalás

*„Ösztönözzük a világ összes országát arra, hogy eredményeiket tegyék összehasonlíthatóvá” írta a néhai Sir Dudley a földhasznosítási térképek nemzetközileg elismert specialistája azzal kapcsolatban, hogy majd 70 évvel ezelőtt a Nemzetközi Földhasznosítási Felmérési Bizottság egy egységes jelkulcs jövőbeli használatát javasolta.*

*A gigantikus célt sohasem sikerült elérni, ahogy például az IGU (Nemzetközi Földrajzi Unió) eredetileg 1896-ban javasolt 1 : 1 milliós méretarányú világtérkép elkészítését.*

*A nagytömegű földhasznosítási információ és az 1 : 2 500 000 méretarányú világtérkép (WM) európai szelvényei lehetővé tették az EULUSMAP elkészítését az 1969 augusztusi ECA/FAO egyezmény alapján. Svájc megkérte Magyarországot, hogy készítse el az említett térképet, Hollandia ebben a tárgyban készített jelentése mellékleteként.*

*Az IGU Földhasznosítási Bizottsága Prof. Hans Boesch (Svájc) vezetése alatt annak 1972 augusztusi montreali ülésén az EULUSMAP-et a bizottság fő projektjének tekintette. A bizottság tagja Prof. Ted Paludan ugyanebben az időben az egyik legmagasabb beosztású NASA tisztviselőként ugyanezzel a szakterülettel foglalkozott s ingyenesen felajánlotta a kutatás céljára a NASA fekete-fehér és színes űrfelvételeit. Ahogy ez később kiderült, a nagylelkű felajánlás okos, előrelátó ajánlat volt.*

## THE STORY OF THE LAND USE MAP OF EUROPE

### Summary

*„To encourage all countries of the World to make their results comparable” wrote the late Sir Dudley stamp internationally acknowledged specialist of the land use mapping. In connection with the future use of the suggested map legend, developed by the World Land Use Survey Commission nearly 70 years ago.*

*This gigantic task has never been realized, similarly to a World Map in 1 : 1 million suggested originally by the IGU (International Geographic Union) as back as 1896.*

*The vast amount of mapped land use information and the availability of the 1 : 2,5 million World map (WM) European sheets gave a chance for the realization of the EULUSMAP when the ECA/FAO convention in August 1969 at Zollikhofen, Switzerland requested Hungary to prepare the said map as supplement to Netherland's Report on the subject.*

*The IGU World Land Use Commission under the chairmanship of Prof. Hans Boesch (Switzerland) at the Montreal Meeting in August 1972 adopted the EULUSMAP as their main project. WLUS member Prof. Ted Paludan at that time one of the top NASA officials engaged on the same field of research offered to supply free of charge NASA's BW and coloured satellite images. As it later turned out, this was not only a generous but wise far-seeing offer.*

## Preceding

„To encourage all countries of the World to make their results comparable”, wrote late Sir Dudley Stamp, an internationally acknowledged specialist of the land use mapping, in connection with the future use of the suggested map legend developed by the World Land Use Survey Commission nearly 70 years ago.

This gigantic task has never been realized, similarly to the preparation of a World Map at 1 : 1 million suggested originally by the IGU (International Geographic Union) as back as 1896. The vast amount of mapped land use information and the availability of the European sheets of the 1 : 2.5 million World Map (WM) gave a chance of the realization of the EULUSMAP when the ECA/FAO convention in August 1969 at Zollikhofen, Switzerland requested Hungary to prepare the said map as supplement to the Netherlands’s Report on the subject.

The IGU World Land Use Commission under the chairmanship of Prof. Hans Boesch (Switzerland) at the Montreal Meeting in August 1972 adopted the EULUSMAP as their main project. WLUS member Prof. Ted Paludan, at that time one of the top NASA officials engaged in the same field of research, offered to supply free of charge NASA’s BW and coloured satellite images. As it later turned out, this was not only a generous but wise far-seeing offer.

## The base-map

Choosing Eastern Longitude 10 as central meridian, twelve assembled sheets of the WM serve as base maps joined into four matchable sheets with a total size of 190 cm × 125 cm. The original sheet size of 100 cm × 70 cm ensured enough room to place the vast thematical Legend (17 cm × 125 cm) at the bottoms.

To assist placing the thematic element as precisely as possible, the WM hydrographic and settlement network (with 1<sup>st</sup> grade administrative boundaries) were copied together and were used as base-maps.

The EULUSMAP covers Europe from Nordkapp to Crete in the North-South direction and from Iceland to the Aegean shores of Turkey in the East-West direction.

## The legend

Applied languages: Hungarian, English, French and Spanish. Number of land use categories: Permanent crops (8), Forests (6), Temporary crops (arable land) (1), Built up areas (2), Waste lands and zones of extra low productivity (8), Grass lands (5), Inland waters (4) and 14 tree types with different symbols, FAO categories with letters (only in legend) (9)

The texts in all categories of the foreign languages were directly supplied, corrected or rewritten with the explanatory texts as well by foreign specialists of the relevant languages.

## Contributions

Complete map manuscripts were received from Austria, Belgium, Bulgaria, Czechoslovakia, Denmark, Germany (FRG, GDR), Great Britain, Ireland, Poland and Spain.

Let me mention with gratitude the courtesy of Institut Géographique National, Paris for lending the 1 : 1 million positive paper copies of ERTS images for the total area of France, for Kongsberg KV (Kongsberg, Norway) for images covering parts of Norway, for the National Board of Surveys (Helsinki, Finland) for the 1 : 1 million images covering the

Gulf of Bothnia coastal areas and Lapland, and for NASA (Huntsville, USA) using dozens and dozens colour images of various parts of Europe, and ERTS colour images published by Georg Westermann Verlag and Data-Umwelt GmbH (both from the Federal Republic of Germany).

The author in other capacity had the chance to visit the central parts of Norway and Sweden, several parts of Finland including territories far beyond the Arctic Circle. Partly due to these travels, the presentation of the colour proof print of the EULUSMAP Fennoscandinavia was possible with Prof. Paludan's participation at the ICA's Simferopol (Crimea) Conference, Autumn 1976.

Altogether 35 European specialists and five Hungarian colleagues from my Department participated. All the names appear on the EULUSMAP.

Despite several efforts, connections could not be established with Albania and Greece and a faint one with Turkey. We used all our materials collected a piled up since 1972 and much benefited from the Map Room of Cartographia Enterprise. One sample only: the arable lands (size and form) were completely derived from the satellite images of Fennoscandinavia. Ultimately, no European territories remained blank. Choosing colours, we tried to present waste, barren areas with „cool” colours, and all Southern Europe with „warm” ones.

I am bound to mention with gratitude the Cartographic Department of the Ministry of Food and Agriculture for ensuring and allocating time and financial funds. EULUSMAP final prints on four sheets were presented with general recognition at the International Cartographic Exhibition of the ICA, Warsaw, July 1982.

## References

- PALUDAN T. – CSÁTI E.: *Accomplishments of the Commission on World Land Use Survey*. in: Y. Himiyama et al., Hokkaido University of Education Asahikawa, Japan, 2005, 5-13. p.
- PALUDAN T. – CSÁTI E.: *ELUSMAP an International Land Resource Map Utilizing Satellite Imagery*. NASA Technical Paper, USA Washington DC 1978.
- PALUDAN T. – CSÁTI E.: *Fennoscandinavia of the EULUSMAP*. Scientific Symposium, IGU World Land Use Survey Commission, Simferopol, SSSR, 1976, 15-17. p.
- CSÁTI E.: *EULUSMAP – An Example of Intereuropean Scientific Cooperation*. Geographica Helvetica No. 1, Kümmerley Frey, Bern, 1976, 25-26. p.
- CSÁTI E.: *Geographic Methods of Data Evaluation of Land Use Maps in WLUS occasional papers 9*, Geographical Publications Ltd., Berkhamsted, 1970, 85-91. p.

