

Dávid Karácsonyi

RURAL GEOGRAPHY OF UKRAINE

MAIN FINDINGS OF THE DOCTORAL (PhD) THESIS

SUPERVISOR:

DR. FERENC PROBÁLD

PROFESSOR EMERITUS

Eötvös Loránd University, Faculty of Sciences

Doctoral School of Earth Sciences, Head: Dr. Miklós Monostori

Geography-Meteorology Program, Head: Dr. Gyula Gábris

Budapest

2008

I. Choice of subject

Studies on Ukraine – as part of those on **Eastern Europe** – **have sunk into neglect** in the Hungarian academic research over the past twenty years or so. Geography followed the general trend; this is why taking up the topic should be considered a worthwhile venture, even if there are many representatives of the discipline who maintain that „let foreign countries be studied by foreigners”. Lately Ukraine (similar to its wider surroundings) has been upgraded by Hungary as well as by the European Union (EU). This circumstance lays responsibilities on the domestic geographical science: to deal with Ukraine has become a task of **strategic importance**. The Hungarian Academy of Sciences (HAS) has paid an increasing attention to the region and it raised East European studies to the rank of strategic surveys. Several publications were prepared in this context: a professional album *Ukraine in Maps* (the author of the present dissertation was among the contributors) published by the Geographical Research Institute HAS, a volume of studies by authors from the Russian Federation, entitled *Regional development and policy in the transforming Russia* (in Hungarian) published by the Center for Regional Studies HAS and a periodical *East European Studies* launched by the Institute of World Economics HAS.

Ukraine possesses with a high agricultural potential but this fact in itself is not sufficient to make it a competitive actor on the global market. A solid background should be provided by the socio-economic power of the country. The present thesis focuses on the demography and economic conditions of the rural population of Ukraine, sizeable even in European comparison as well as on the **spatial differentiation of the rural areas**. The direct objectives of the empirical survey were the elaboration of a **spatial typology of the rural areas at the level of raions** (statistical regions) as administrative entities and the definition of the characteristic features of these areas. The latter could be instrumental for the subsequent working out of goals and schemes of rural development, especially for a tentative scenario of the association of Ukraine with the EU.

Along with regional policy it is rural policy that provokes the hottest debates within the EU. An overwhelming portion of the budget of the Union is spent for the solution of the problems related to these two issues and this emphasizes the importance of investigations into rurality.

II. The structure of the thesis

The tentative **objectives of the studies on rural areas** were outlined by Gy. Enyedi (1975): demarcation of rural spaces, exploration of their resources, typology of rural areas and elaboration of development concepts for the different rural types. This is conceived as the theoretical

framework for an empirical survey of rural spaces. It was attempted to follow this working procedure with the reservation that shaping a development concept goes beyond the limits of the present thesis.

As far as its **topic** is concerned the thesis can be subdivided into **two fundamental parts**; with regard to its **structure** it consists of **four main chapters**:

In the **first part** the overview of international literature comprises several rural typologies and empirical surveys published in domestic and foreign academic periodicals or in the internet. Through the analysis of these case studies an attempt was made to define the differentiating characteristics of rurality both in a general and region-specific sense which were tested subsequently for the case of Ukraine.

Based on the literature an attempt was made to (re)define **rural geography** (*Csatári, B. 2006*), this (in Hungary) relatively young academic discipline and the challenges issued to it by scientific research. In my opinion rural geography is to address the issues raised by human (social and economic) geography and physical geography in an integrated context, within the framework of regional geography. The unit of research in rural geography – by the analogy of regional geography – is the rural region.

The presentation of the data available served for a linkage **between the two thematic parts** as an introduction to the empirical survey.

In the **second chapter** the factors responsible for the differentiation of rurality in Ukraine and the internal characteristics of the individual regions were revealed: in the first place in a descriptive manner (with county/oblast data also taken into account).

In the **third chapter** the tentative complex dimensions were determined by multivariate mathematical (factor) analysis. Then rural typology carried out by cluster analysis resulted in 451 raions of the country with overwhelmingly rural character.

In the **fourth chapter** the rural regions obtained through typifying were described in proportion to the extent of the dissertation.

III. Methodology

One of the innovations of the dissertation is the **level of investigation**. A great number of raions

(699) allowed an exact insight into the spatial pattern of Ukraine which had hitherto been a serious deficiency in the international literature. The papers on the country as a rule contained studies on spatial disparities at the county (oblast) level. Due to their considerable extension (comparable only to *Länder* in Germany) these oblasts are not suitable for displaying the spatial relationships in a sophisticated way on the one hand, and owing to their number the multivariate mathematical operations (factor analysis) are not applicable for them on the other hand. This is why **the raions** were rendered as the basic units of the analysis; these entities are considered to have been adequate for the elaboration of a typology of rural areas.

The data which had served for the basis of quantitative analyses were not available in Hungary, only in Ukraine, therefore the search for the data and bringing them together i.e. **field work** on the spot formed an organic part of the preparation of the thesis. A lot of literature was purchased during these study tours in Ukraine. These activities and personal experience have greatly contributed to a closer acquaintance with the country.

Prior to and during the construction of a data matrix at the raion level several problems emerged. They had stemmed from the data supply which differed by oblast and from the heterogeneity of the spatial units they referred to. The resulting **data matrix** contain relatively only few „hard” data (average wages and salaries, natural population change, ratio of rural population etc.) that were available for all the raions of the country. They were completed with figures calculated from other sources and „soft” data (distances, ecological conditions, tourist attractions etc.). Spatial heterogeneity was counterbalanced through aggregating areal entities. This procedure ended up at 501 unit of survey of raion category.

Raions of urban character had to be selected and left out from the further investigation. For the **separation of rural raions** the density of population and the share of rural population were the decisive figures. Demarcation resulted from simple statistical analysis.

In respect with the ultimate purposes of the dissertation it was the achievement of the typology that required a more sophisticated quantitative methodological apparatus. Based on the domestic and international examples the most frequented **cluster analysis** was chosen for typification. To achieve a maximum characterization of the rural types by the clusters it was reasonable to use **complex variables** which however did not correlate with each other and were produced by **factor analysis**. The latter resulted in 7 factors from 19 variables on the raion level. A hierarchic cluster analysis performed with the 7 factors has led to 7 clusters.

Based on the spatial distribution of the clusters the rural regions were demarcated using **cartographic methods**.

IV. Results

(1) Using the results of the empirical survey an attempt was made to define and summarize both the general and region-specific **differentiating characteristics of rurality**. In my opinion these characteristics can be traced along four principal dimensions as follows: distance and accessibility; urban effects; demography conditions; economic diversity and monofunctionality. A summary was given on the definition of **rural geography** and research problems related to the discipline.

(2) A **detailed regional pattern** of Ukraine was revealed in proportion to the possibilities, to an extent heretofore unprecedented in literature. Data sets from the different sources were standardized and organized into a uniform database (spatial data matrix, table of metadata, vectorized base map)

(3) An attempt was made to **determine the factors fundamentally differentiating** the rurality in **Ukraine**. Demography pattern (natural decrease), labour market and economic conditions and population density are considered the most relevant social factors. Besides, natural environment also plays an important part in differentiating rural spaces. Urban effects, however, are not separated from the economic factors over the agricultural monofunctional zones (with the exception of some tourism-oriented coastal areas. Location is resultant of two forces: the distance from the urban settlements and natural zonality and also has an affect upon population density. Outmigration, ecological situation and entrepreneurial activity are dominant only in some minor areas; at a national level these dimensions do not explain a lot of the spatial patterns.

(4) As a result of typifying, **5 main types and 7 subtypes** of rural areas were identified in Ukraine (*Fig. 1 and Table 1*). In them the classic characteristics can be revealed from the urban fringe to the zones dominated by the farming sector, and from the areas of demographic depression to the peripheral zones and mountain regions. Rurality in Ukraine shows several similarities with its European counterpart. Nevertheless, some specific features could be identified. Considerable differences in population density, strong spatial disparities in the degree of urbanization within the rural network of small towns derive partly from the East European historical evolution (settlement along the steppe frontier) and partly from the hasty industrialization of the Soviet era.

(5) Based on the spatial types the **spatial differentiation of the rural Ukraine** (with the exception of the „azonal” mountain regions and the urban fringe) is closely related to the regional divisions as

a result of long historical evolution of the country (West, Midwest, East, South and the dividing them Uman'–Kharkiv line). The western areas are limited by the Chernivtsi–Rivne line. The boundary of the highly industrialized eastern region which had detached from the southern steppe of a distinct development, however, cannot be drawn exactly, because urban centres are dispersed in an irregular pattern, they are „floating” on the inner peripheral steppe.

(6) The research work eventually resulted in a version of rural divisions based on the spatial distribution of the types. In the course of this **geographical „raionization”** the four macroregions (West, Midwest, East, South) could be further subdivided into **23 rural (sub)regions**. The description of internal socio-economic conditions and cultural landscapes were carried out in proportion to the extent of the thesis. These regions can be regarded almost uniform and continuous in space; they are the outcome of organic systems of relationship and historical evolution. They bear all general criteria of regions and might become the basic units (target areas) of a tentative policy of regional and rural development in the future.

(7) The thesis has yielded a contribution to the **geographical studies on foreign countries**. The related emerging problems and the necessity of their solution were referred several times in the dissertation (lack of data, preliminaries, databases, base maps) and might (in principle) promote the theoretical foundations and practical solutions of the tasks of regional geographical investigations of foreign countries. The present thesis is to be regarded as the first step in this direction.

V. Conclusions

The ultimate objective of the thesis has been the preparation of a complex regional rural typology which might be a support in determining the specific demands of the development strategies for the individual regions. The comparison with the problems of the European rural areas provided a good opportunity for the study of the characteristic features of Ukraine. A wealth of information was obtained for a perspective regional and rural development within the EU in the case of a future integration of the country.

A most important step forward should be the dissemination of the thesis, its discussion in Hungary and Ukraine. Another goal is the continuation of the research work and its extension towards the regional geography of the wider surroundings and towards the general issues of rural geography.

It should be emphasized that the dissertation is an experiment (solution) and with the acquisition of new information (data) the results could be rectified and refined.

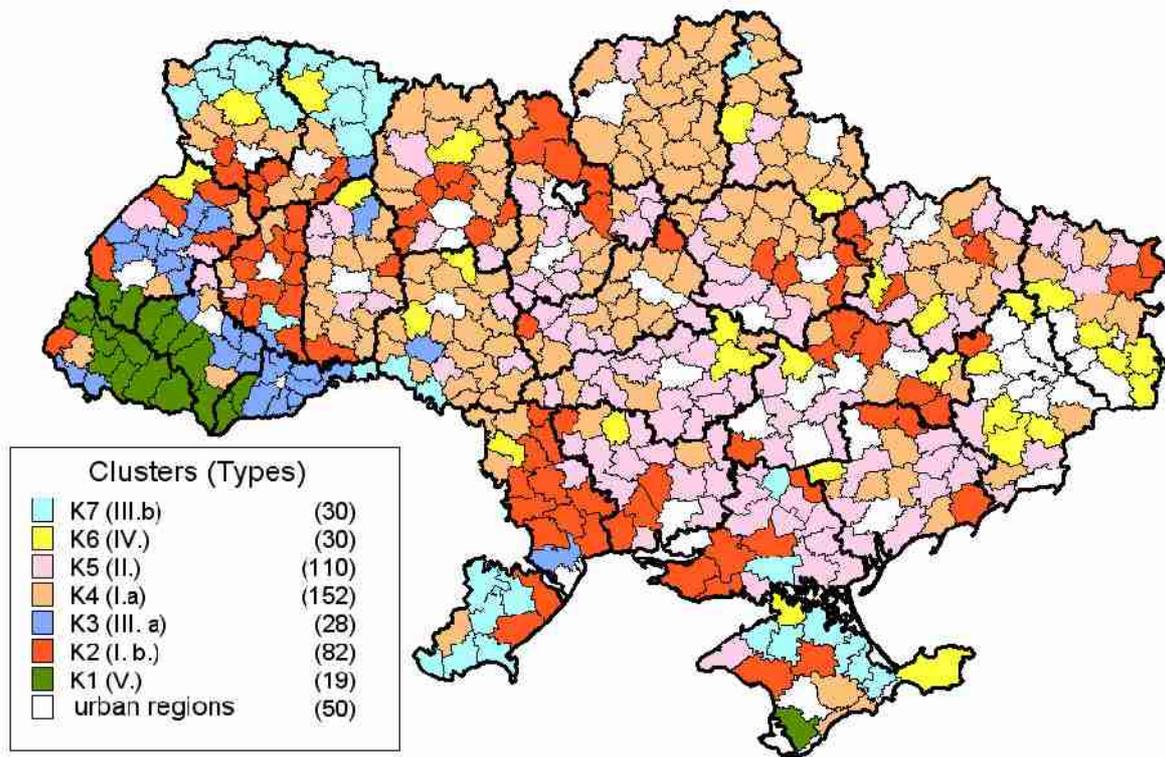


Fig. 1. Rural types of raions in Ukraine

Type	Subtype		Clusters	Number of elements
I		Classic agricultural Ukraine		
	I.a	Agricultural areas of high fertility but low socio-economic intensity in crisis situation, with the highest population loss and aging society, a broken socio-economic structure and interrupted development in the 20th century	K4	152
	I.b	Classic agricultural areas of relatively favourable demographic pattern with very depressive economic conditions but high entrepreneurial activity	K2	82
II		Inner peripheral steppe Ukraine Overwhelmingly very sparsely populated peripheries struck by outmigration but with less unfavourable natural population change and economic conditions	K5	110
III		Areas of giant villages with favourable demographic pattern and unfavourable economic conditions		
	III.a	The poorest agricultural areas with the highest population density and relatively favourable conditions for farming	K3	28
	III.b	Sparsely populated peripheral areas of overwhelmingly recent agricultural colonization, with unfavourable natural conditions	K7	30
IV		Areas with a higher degree of urbanization, urban zones of gravity Areas with favourable demographic pattern and economic conditions with a sizeable rural population	K6	30
V		Rural areas in mountain regions Areas with environmental conditions unfavourable for farming, thus radically differing from those typical of Ukraine and adversely affecting settlement pattern and economic conditions	K1	19

Table 1. Rural types of raions in Ukraine (the result of cluster analysis)

VI. Other publications in the topic

- Karácsonyi Dávid (2008): *A kelet-európai sztyepp és a magyar Alföld mint frontier területek* (The East-European steppe and the Great Hungarian Plain - as frontier territories) – Földrajzi Értesítő LVII./1–2. pp. 185–211.
- Dövényi Zoltán – Karácsonyi Dávid (2008): *A munkanélküliség és a jövedelmek területi különbségei Ukrajnában* (Spatial Disparities of Unemployment and Average Nominal Wages in Ukraine) – Tér és Társadalom 4. (under publication)
- Karácsonyi Dávid (2008): *Vidéki térségek és a vidékföldrajz* (Rural Areas and the Rural Geography) – In: Society and Economy International Conference, conference book. Baja. (under publication)
- Bochkovs'ka, Alla – Karácsonyi Dávid – Kovács Zoltán (2008): *Settlement System* – In: Kocsis Károly – Rudenko, Leonid – Schweitzer Ferenc (ed.): Ukraine in Maps. MTA FKI, NAS of Ukraine Institute of Geography Kyiv–Budapest. pp. 81–90.
- Karácsonyi Dávid – Kozachenko, Tamara – Rudenko, Leonid (2008): *Agriculture* – In: Kocsis Károly – Rudenko, Leonid – Schweitzer Ferenc (ed.): Ukraine in Maps. MTA FKI, NAS of Ukraine Institute of Geography Kyiv–Budapest. pp. 117–124.
- Karácsonyi Dávid (2007): *Ukrajna régióinak települési arculata és a településfejlődés eltérő vonásai* (Different characteristic and development of settlements in regions of Ukraine) – Földrajzi Közlemények CXXXI. (LV.) /1–2. pp. 21–38.
- Karácsonyi Dávid (2007): *A FÁK európai tagállamai* (The European member countries of CIS) – In: Probáld Ferenc – Szabó Pál (ed.): Európa regionális földrajza (Regional Geography of Europe). ELTE Eötvös Kiadó. Budapest. pp. 474–521.
- Karácsonyi Dávid (2007): *A vidéki térségek lehatárolásának problémaköre Ukrajnában* (Delimiting of rural areas in Ukraine) – In: Gulyás László (ed.): IV. European Challenges Conference, conference book. Szeged. pp. 483–488.
- Karácsonyi Dávid (2007): *Az ukrán agrárszektor regionális vonatkozásai* (Regional structure of Ukrainian agrarsector) – In: Gulyás László (ed.): „Regions in and out of Carpathian Basin” international scientific conference, conference book. Baja. pp. 80–84.
- Karácsonyi Dávid (2007): *Ukrajna regionális tagoltságának történelmi háttere* (Historical background of regional structure in Ukraine) – In: Gulyás László (ed.): „Regions in and out of Carpathian Basin” international scientific conference, conference book. Baja. pp. 461–465.
- Karácsonyi Dávid (2006): *A társadalmi tagoltság és a régiók eredete, arculata Ukrajnában* (Origin and Face of Social Space Structure and Regions in Ukraine) – Földrajzi Értesítő LV. évf. 3–4. füzet. pp. 375–391.
- Karácsonyi Dávid (2006): *A társadalmi-gazdasági választóvonalak és régiók Ukrajnában* (Social and Economic Borders and Regions in Ukraine) – III. Magyar Földrajzi Konferencia, conference CD. MTA, FKI. Budapest. 12 p.
- Bodnár Dénes – Karácsonyi Dávid (2005): *Ukrajna az átmenet tükrében* (Ukraine in transition) – In: Perczel György – Szabó Szabolcs (ed.): Studies in Social and Economic Geography. Trefort Kiadó. Budapest. pp. 217–231.