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SOCIO-ECONOMIC CONDITIONS OF LIFE OF THE RURAL POPULATION AS AN INCENTIVE FOR THE RURAL ECONOMY DEVELOPMENT: THE CASE OF CHERNIVTSI REGION IN UKRAINE

ABSTRACT

The economic development of rural areas indirectly depends on the rural population's living standard and socio-economic life conditions. The depopulation of rural areas, the outflow of skilled labor, underdeveloped or neglected transport infrastructure, the absence or lack of information and communication infrastructure etc. not only discourage new business that could enter the region, but are also detrimental to the survival of existing business entities in the rural areas.

The paper analyzes the socio-economic life conditions of the rural population in Chernivtsi region in the following dimensions: provision of rural residents with housing equipment and utilities; dynamics of indicators of trade enterprises and consumer services activity; availability of pre-school and school education in rural areas and library network development trends; healthcare provision to the population in the permanent residence area; problems of transport and communications network; material and financial security of the rural population.

Key words: rural development, housing, infrastructure, living standard.

JEL Classification: O18, R11.

1. INTRODUCTION

The problems of socio-economic development of rural areas remain important in the world for a long period due to urbanization trends and threats of decline and depopulation of large areas outside the cities. In its turn, this puts on the agenda the issue of food security of the whole country. One of the main reasons for this situation is that the living conditions of rural population are significantly inferior to those in cities. In addition, Ukraine is characterized by a lower activity of business entities in rural areas compared to cities. This causes labor migration, both temporary and permanent. As a result, about ten villages disappear from the map of Ukraine each year. Hence the problem must be addressed immediately.

2. MATERIAL AND METHOD

The research is based on data collected from the official statistics of the State Statistics Service of Ukraine and the Main Statistics Service in Chernivtsi region. The statistical information was systematized, processed and interpreted through statistical-mathematical methods and presented under the form of tables and figures.

3. RESULTS AND DISCUSSION

One of the main problems of villages in the Carpathian region and the rural areas of Chernivtsi region in particular is the deficient social infrastructure. This leads to a number of social, economic, psychological, spiritual and other problems. The social sphere of rural settlements consists of a number of elements: residential buildings and their construction, objects of social and cultural use, healthcare, education, trade, services, communications, passenger transport network and so on.

One of the important technical infrastructure indicators is the provision of housing area for the rural population. The housing stock of rural settlements in Chernivtsi region by January 1, 2014, amounting to 199,004 residential buildings, with a total area of 13,313.3 thousand m². That is by 404.3 thousand m² more than in 2011, and by 1,262.3 thousand m² more than in 2005. In 2014, the average dwelling area per capita in the rural areas of the region accounted for 25.8 m², while the minimum standard is 21 m² (according to the direction “On approving the Methodology of providing subsidies to population for reimbursement for housing and communal services, natural gas, solid and liquid heating fuel”). This figure surpassed the corresponding figure for urban residents by 4.1 m² (Osaulenko, 2014).

Figure 1 shows a variety of average dwelling area per capita in the rural settlements of Chernivtsi region by its administrative districts and by comparison with the regional and average for Ukrainian rural areas values in 2013.

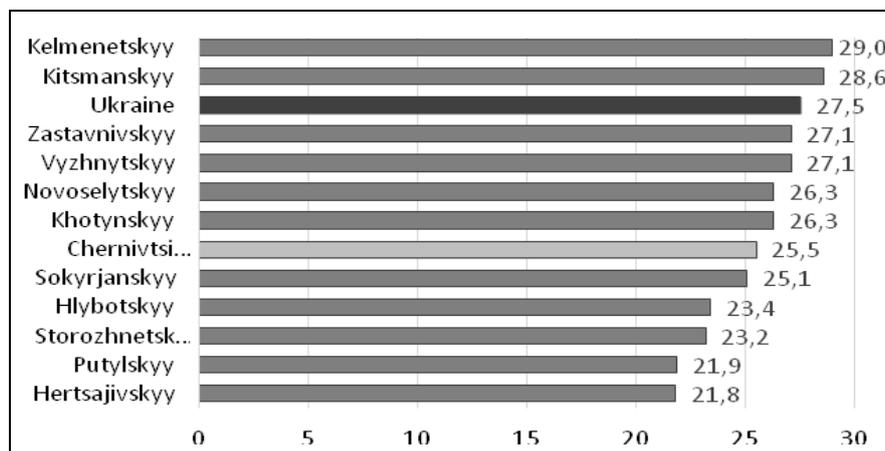
The situation is more difficult in terms of water supply and sanitation. Centralized drinking water supply in the region is provided to 10 out of 11 cities, 7 out of 8 townships, 25 out of 398 villages – more than 61.4% of the urban and township population, or 29.1% of the total population, according to the Program of economic and social development of the Chernivtsi region in 2014.

Centralized wastewater utilities are provided in 9 cities, 6 townships, 4 villages – more than 59.2% of the urban and township population, or 27.6% of the total population.

The drainage system is available in 2 cities and 10 villages.

There are significant losses of resources, as utilities are worn out: 4.8% heating systems (6.1 km) are in emergency condition. Only 64 of 97 boilerhouses are equipped with thermal energy meters (66%); 297.2 km (34.5%) of water supply

networks are in emergency condition, which causes significant (42.3%) water losses; 156.8 km (30%) of sewer networks are in emergency condition (according to the State and prospects of infrastructure development of regions of Ukraine).



Source: author's data processing (Osaulenko, 2014; Rotar, 2014)

Figure 1. The average housing area per capita in the rural settlements of Chernivtsi region by administrative districts and in Ukraine in the year 2013.

The total area of housing stock in rural areas is still poorly equipped with utilities, though some positive dynamics in that area can be noticed (Table 1). A number of 123 villages still have no gas supply (Rotar, 2014). Furthermore, none of the 50 rural settlements in Putylskyy district were supplied with gas. The lowest levels of gas consumption in 2013 were found in the districts Putylskyy (0 m³), Hertsajivskyy (0.5 million m³), Hlybotskyy (1.2 million m³) and Storozhynetsky (1.6 million m³). Therefore, it is no surprise that the three districts together (Hlybotskyy, Putylskyy, Storozhynetsky) account for 75.7% of the total regional firewood consumption (Rotar, 2014).

Table 1

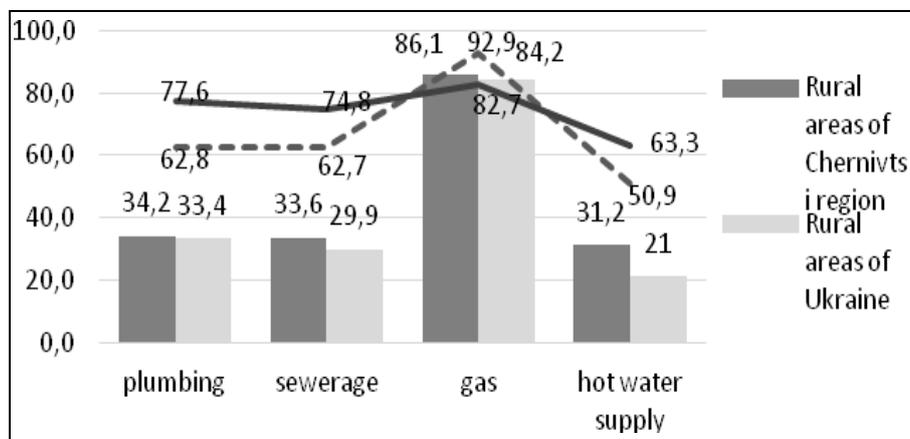
The share of the equipped area in residential buildings, non-residential premises and hostels in rural areas of Chernivtsi region, %

Years	Plumbing	Sewerage	Gas	Hot water supply
2005	5.3	5.0	79.3	2.1
2008	10.9	10.7	82.2	4.4
2009	22.8	22.4	83.2	18.9
2010	25.2	24.9	83.3	21.0
2011	27.3	27.0	84.2	22.9
2012	29.2	29.0	84.1	25.0
2013	32.6	32.3	84.4	28.9
2014	34.2	33.6	86.1	31.2

Source: Karmazina, 2015; Rotar, 2014.

However, the rural housing in Chernivtsi region is slightly better equipped than the average Ukrainian villages. Yet, the living conditions in rural areas are significantly worse as compared to cities (see Fig. 2).

Education has an important place in the social development of rural areas, the availability of preschool educational institutions in particular. According to the standards established in Ukraine, the preschool educational institutions should exist in each village with 12 or more children of preschool age (Maksymenko *et al.*, 2015). However, there are 122 villages in Chernivtsi region that do not have preschool educational institutions, including 82 villages with more than 20 children under six years old (Karmazina, 2014).



Source: authors' data processing (Karmazina, 2015)

Figure 2. The share of the equipped total area in residential buildings, non-residential premises and hostels in Chernivtsi region and the average in Ukraine in the year 2014, %.

The share of children covered by preschool educational institutions in the rural areas of Ukraine was 42% in 2013. The value of this figure for Chernivtsi region is higher than the Ukraine average by 4% (amounting to 46%). The number of preschool educational institutions in the rural settlements of Chernivtsi region increased from 160 to 282 units in the period 2000–2013, while the capacity of these institutions is overloaded with children: 128 preschool age children per every 100 places available in 2014 (Rotar, 2014).

In the last 11 years, the number of secondary schools and pupils enrolled in secondary education decreased. There are 436 secondary schools in the region, where 97.2 thou children are learning (Bruchovych, 2014). That is by 21 institutions and by 29.3 thou pupils less than at the beginning of the 2004/05 academic year. At the beginning of 2014, there were no schools in 98 rural settlements in Chernivtsi region (this figure is by 10.1% higher than in 2005), including 38 villages with 50 children aged 7–17 years (Karmazina, 2014). The number of schools in villages amounted to 326 in 2014, including 34 primary schools, 110 secondary base schools, 177 secondary complete schools and 5 high schools.

Libraries represent an important part of the educational sphere of the region. Most of them (339 units in 330 villages) are operating in rural areas (Tkach *et al.*, 2015). A gradual computerization of libraries is under way in the region. At present, 99 libraries in the region (24.6%) use computers, including 69 (20.1%) in rural areas. The e-mail service is used by 67 libraries, including 36 in the rural area of the district and 15 village library websites were set up. Yet the number of libraries and their funds constantly decreased in the last decades.

The level of healthcare development can be estimated by the availability of hospital beds per 1000 persons (in accordance with the requirements 5–8 beds per 1000 persons) and availability of out-patient and polyclinic institutions per 1000 persons (in accordance with the requirements 24 visits per shift per 1000 persons) (Maksymenko *et al.*, 2015).

We use such an index in the analysis out of the following reason: firstly, in the rural areas, feldsher-midwife units or feldsher units (hereinafter – FMU/FU) provide pre-medical care to the relevant rural settlements and they are the lower subdivisions of primary healthcare. Secondly, FMU/FU are established in settlements with population of 300 and more persons where other healthcare institutions do not exist according to the statute of feldsher-midwife/feldsher unit. So, not all villages have FMU/FU. Furthermore, in connection with limited finance, the healthcare in Ukraine is confronted with the decline of the number of FMU/FU, i.e. they are being closed down. Thirdly, rural residents should get to the hospital in the local center for receiving qualified and specialized healthcare. Thus, the rural population of a certain district use hospital services, located in district centers.

We have elaborated an index to verify if the provision of hospital beds is kept up to standard (from 5 to 8 beds per 1000 persons) (Maksymenko, A. O., Tsybalista, N. A., Bas-Yurchyshyn, M. A., 2015):

$$I_{LR} = \frac{R}{N} \quad (1)$$

R – amount of hospital beds at a district per 1000 persons;

N – standard amount of beds at a district per 1000 persons

If I_{LR} ranges:

$$\begin{cases} I_{LR_min} \geq 1 \\ I_{LR_max} \leq 1 \end{cases} \quad (2)$$

$$I_{LR_min} = \frac{R_i}{N_{min}} \quad (3)$$

$$I_{LR_max} = \frac{R_i}{N_{max}} \quad (4)$$

Where i – index of district ($i = \overline{1, n}$); n – number of districts; R_i – amount of hospital beds at the district per 1000 persons; N_{min} – the minimum value of the standard availability of hospital beds per 1000 persons (5 beds); N_{max} – the maximum value of the standard availability of hospital beds per 1000 persons (8 beds).

Table 2

Availability of hospital beds per 1000 persons in Chernivtsi region in 2013

District	Availability of beds per 10 000 persons	Index		Estimation of lack/surplus compared to standards, %
		$I_{LR_{min}}$	$I_{LR_{max}}$	
Vyzhnytskyy	43.1	0.86	0.54	-13.8
Hertsayivskyy	38	0.76	0.48	-24.0
Hlybotskyy	38.7	0.77	0.48	-22.6
Zastavniivskyy	40.7	0.81	0.51	-18.6
Kelmenetskyy	40.5	0.81	0.51	-19.0
Kitsmanskyy	42.7	0.85	0.53	-14.6
Novoselytskyy	42.8	0.86	0.54	-14.4
Putylskyy	45.9	0.92	0.57	-8.2
Sokyryanskyy	50.1	1.00	0.63	-
Storozhynetskyy	39.4	0.79	0.49	-21.2
Khotynskyy	41.7	0.83	0.52	-16.6
Chernivtsi region	79.9	1.60	1.00	-

Source: authors' calculations based on Rotar, 2014.

As illustrated by Table 2, the average availability of hospital beds in the region goes in absolute compliance with minimal and maximal standards. But the composition by districts shows that the rural population is undersupplied with medical care. The scarcity of hospital beds is the highest in the districts Hertsayivskyy (24.0%), Hlybotskyy (22.6%) and Storozhynetskyy (21.2%) districts. The availability of out-patient and polyclinic institutions per 1000 persons is also below standard.

Trade and consumer services in rural areas can be assessed by changes in the volume of retail turnover of enterprises and growth rate of retail outlets number (Table 3). The trading volume as a factor of social development is taken into account due to the fact that the rural dwellers' needs in commodities should be satisfied at their places of residence (Maksymenko *et al.*, 2015).

In the period 2005–2013, the number of shops significantly declined, while the amount of semi-permanent outlets increased. However, the total number of trading outlets decreased by 44.3% in the same period.

Chernivtsi region has an ambiguous position in the transport system of Ukraine. On one hand, border location makes the area potentially attractive as transport corridor, and now it has well-established transport connections with Poland, Romania and Moldova. On the other hand, the area is situated at the periphery of the national traffic.

Table 3

Retail enterprises activity in the rural areas of Chernivtsi region in the period 2005–2013

Indices	2005	2009	2010	2011	2012	2013
Number of retail outlets, units, <i>out of which</i> :	449	352	338	324	307	250
– shops	406	287	269	252	234	178
– semi-permanent outlets (pharmacies, booths, kiosks, petrol-filling stations etc.)	43	65	69	72	73	72
Number of restaurants, units	159	131	180	178	175	155
Trading area of shops, thou m ²	23.5	15.7	14.8	14.1	12.6	9.6
Retail turnover of enterprises, million UAH:	203.3	686.0	812.9	1023.9	1007.3	1009.7
– retail trade	191.5	664.5	789.7	995.5	979.2	980.0
– restaurants	11.8	21.5	23.2	28.4	28.1	29.7

Source: authors' processing of data (Rotar, A. V., 2014)

The roads of the region are not technically equipped at a high level. Only 0.4% of all roads (namely 10.3 km) are equipped with street lighting, which can be found only on the roads of national importance. Sidewalks and walkways are present only on 18.5% of roads. Total length of road markings is only 1261 km, that is 43.7% of the total length of highways. Besides this, the roads of both public and local importance are in a poor condition in Chernivtsi region, with a larger amount of potholes compared to neighboring regions, and the need of major repairs is relatively higher (according to “State and prospects of infrastructure development of regions of Ukraine”). This fact significantly complicates traffic throughout the area. Many problems are also concerned with bridges that connect the settlements. There are still bridges in a dangerous condition (even after the floods of 2008, 2010) or that are damaged at any slight raising of the water level.

Regular transport connections cover 380 of 417 settlements. However, 61 of all rural settlements in the region with a population of 21.8 thousand people still do not have a public transport bus stop and 34 of them are situated more than 5 km far from the nearest bus stop (Karmazina, 2014).

The level of material and financial security of the rural population can be estimated by the number of households with the average total income below the minimum subsistence threshold (Tsymbalista, 2014). Another important indicator is the ratio of total income and expenditures of rural households. The average value of total income and expenditures of rural households in Ukraine can be taken as a basis of comparison. The share of rural households with average total income below the minimum subsistence threshold in Chernivtsi region in 2011–2012 reached 21.8–22.5%. This is much higher than the value of this indicator for urban settlements (10.4–11.7%) and higher by 2.1% than in the rural areas of Ukraine as a whole (19.7%) (Rotar, 2014).

Despite the fact that the level of total income of rural households in Chernivtsi region in 2013 is slightly higher than the average in Ukraine, most of these revenues are still spent on current consumption. The ratio of rural household incomes and expenditures in Chernivtsi region to the average in Ukraine amounted to 83.1%. There can be different reasons for this situation: either the level of

consumer needs of the rural population in the region is higher than the average in rural Ukraine, or the consumer goods prices are relatively higher here, or there are some statistically unaccounted incomes of the rural population that come from other economic activities, including those related to the cross-border activities.

The above-mentioned problems are vital for Chernivtsi region as far as it ranks first by the density and ranks second by the share of rural population in the country. In addition to the natural decrease of the rural population, the outflow due to migration processes ranged from 500 to 1000 inhabitants per year; however, a decreasing trend of the rural population outflows in the region could be noted for the last 5 years.

Another striking problem concerns the gradual aging of the rural population: the share of children under 14 years decreased by 3.6% since 2000 (from 21.7% in 2000 to 18.1% in 2014); the share of young people aged 15–24 years declined from 14.9% to 13.8% in the last 5 years. A significant increase can be noticed in the groups of rural population at the middle and at the end of their active working period (aged 35–54 years) – by 3.8%. These trends are detrimental to the labor renewal capacity and affect the future situation on the labor market of the rural areas.

In parallel, not only the demographic but also the economic development trends of the rural areas indirectly depend on the rural population's living standard and socio-economic conditions of life (see Fig. 3).

4. CONCLUSIONS

Despite the fact that the share of rural settlements where business entities are registered and operating is higher in Chernivtsi region than in Ukraine on the average, there is still a considerable number of people who are not officially employed and are working only on their rural private household farms. This figure amounts to 35% of the rural population in the region. Therefore, it is important to provide an incentive for business development in the rural areas. Depopulation of rural areas, outflow of skilled labor, underdeveloped or neglected transport infrastructure, absence or lack of information and communication infrastructure etc., not only discourage the new business, which could enter the region, but are also detrimental to the survival of existing business entities in the rural areas.

Our study of the socio-economic conditions of life in the rural areas of Chernivtsi region revealed a number of problems regarding the housing services, healthcare and educational system, transport infrastructure, etc. Thus, for the newly elected local government of Chernivtsi region, the development of engineering infrastructure of rural areas, improvement of roads quality, availability of healthcare and educational institutions for the rural population in the nearest future will remain a priority. Solving these problems will require the involvement of communities, cooperation with the central authorities, domestic and foreign investments and technical assistance projects.

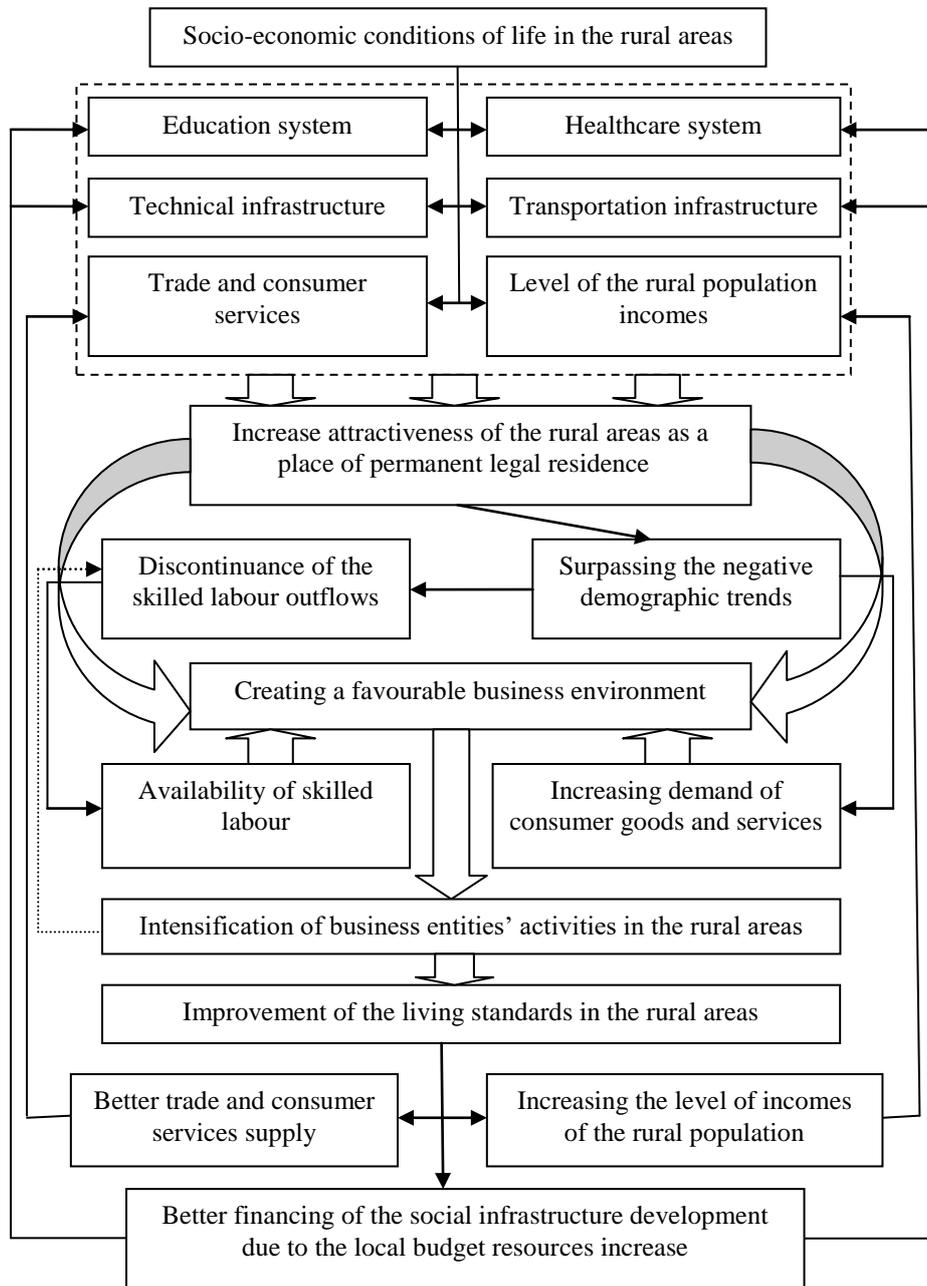


Figure 3. Interrelation between the socio-economic conditions of life in the rural areas and rural economy development.

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