

WORLD POPULATION IN 2008: HALF RURAL – HALF URBAN

Variation over Time of the Proportion of Rural-Urban Population¹

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Abstract

Industrialization in the last few decades has changed the life patterns of people not only in the developed part of the world but even in the developing countries. One of the consequences is the decreasing proportion of people employed in agriculture, together with the increasing labour force needed in industry, and the tertiary or services sector. Due to the fact that industry and services are concentrated in urban settlements, the rural population of the world has been diminishing. This paper seeks to review the deruralization process from 1950 to 2030, presenting changes in the world rural population over the last five decades, and projections for the period to 2030. The projections after 2030 are based exclusively on the past trends of deruralization. Three scenarios are presented for the

evolution of future world rural population proportion (based on data from 1950 – 2030; 1950 – 2005; and 2000 – 2030 respectively). The projection for different continents is based on data of United Nations Population Division from 1950 to 2030. Figures for the different regions of the world will be presented together, allowing a comparison of trends on different continents, ranging from the countries with the highest proportions of rural population to the most urbanized nations. The consequences of the decrease in the rural population are multiple. They include the disappearance of rural cultures, the increased risk of economic instability and deviant behaviour among rural-urban migrants, higher unemployment in urban areas, changes in fertility behaviour, and cultural tensions in urban areas.

Key words: rural, urban, population, Africa, America, Asia, Europe, Oceania

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Introduction

In 1950, less than one-third of the total world population lived in urban settings, but by the year 2030 this proportion is expected grow to sixty per cent. Over the same period, the urban population will have grown from 735 million to 5 billion. This significant decrease in both the numbers and proportion of the rural population is causing a series of economical, societal and political problems at the macro level and has a potentially negative effect on the individual level. The paper presents the changes in the proportions and numbers of the urban and rural populations over eight decades in different parts of the world, using data from the Population

Division of the United Nations. It will also outline some of the consequences of the deruralization process.

The reason for exploring the changing proportion of the rural and urban populations at this moment is that by the end of the year 2008, – the year, when the XII World Congress of Rural Sociology is taking place – the percentage of people living in cities is expected to reach 50 percent for the first time and the percentage of people living in rural settlements is dynamically lowers.

The evolution of the total world population - regional differences²

² The paper has been prepared for the XII World Congress of Rural Sociology, thus the author considered that for an audience of mainly sociological background is worth to present the evolution in the number of world population and population of different continents. It would help in understanding the demographic background of deruralisation in different regions of the world.

The world population is expected to have tripled in the eight decades from 1950 to 2030: the number of 2.5 billion inhabitants in 1950 will rise to 8.3 billion by 2030 with notable regional differences. Taking 1950 as the baseline, the rise of the population in the more developed regions will be 55 per cent (from 813 million in 1950 to 1.26 billion by 2030). However, the main population growth is concentrated in the less developed countries: their increase over the same time period will be 310 per cent (from 1.72 billion in 1950 to 7.06 billion by 2030) (Figure 1).

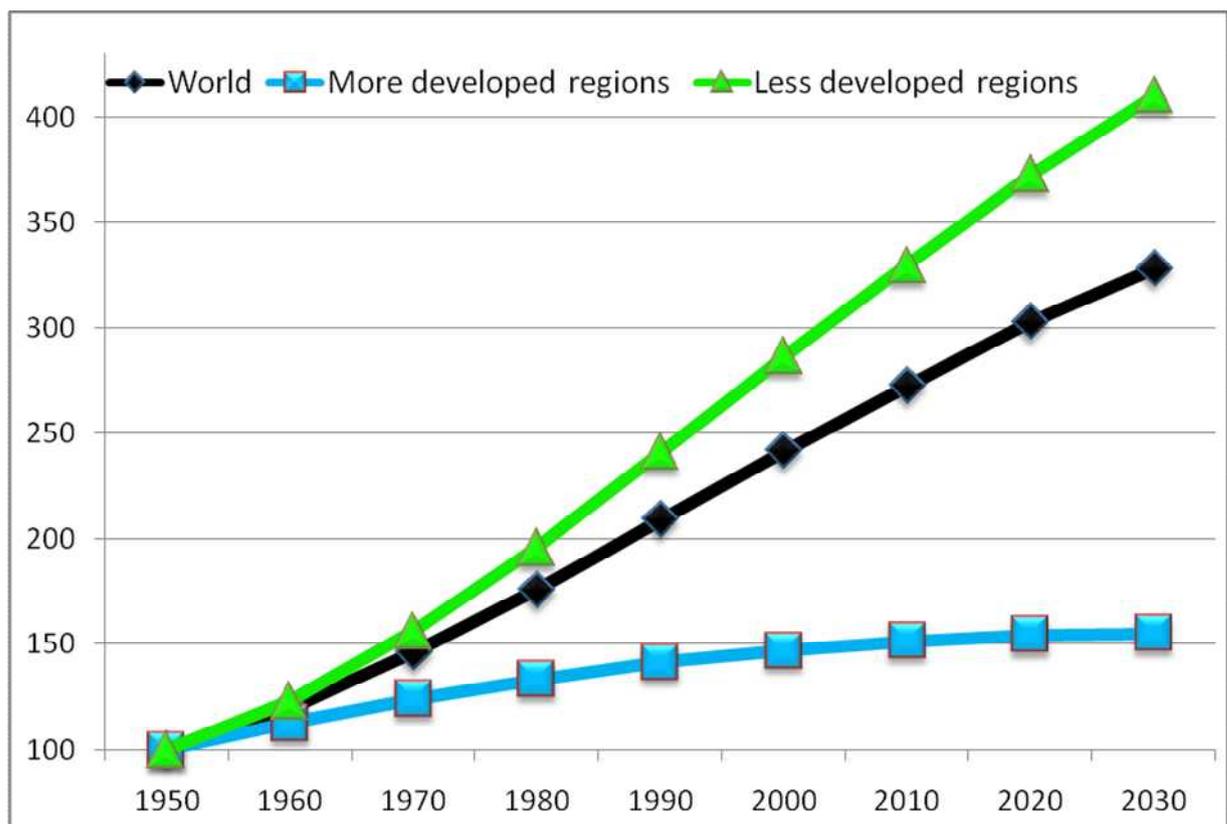


Figure 1: Percentage increase in the world population between 1950 and 2030 for developed and less developed regions (1950 = 100 %)

The population of every continent will have risen over this period of 80 years. The lowest growth will be in Europe, where by 2030 there will be around 30 per cent more people than in 1950 (548 million in 1950; 707 million in 2030). The highest increase in the total population is expected to be in Africa: the population of 224 million in 1950 is expected to rise to 1.52 billion by 2030. The growth rates in America, Asia and Oceania are similar to each other. In America, the population will rise by 330 per cent (from 339 million in 1950 to 1.12 billion in 2030); in Asia, it will rise by 350 per cent (from 1.41 billion in 1950 to 4.93 billion in 2030); and in Oceania, it will rise by 338 per cent (from 12.8 million in 1950 to 43.2 million in 2030) (Figure 2).

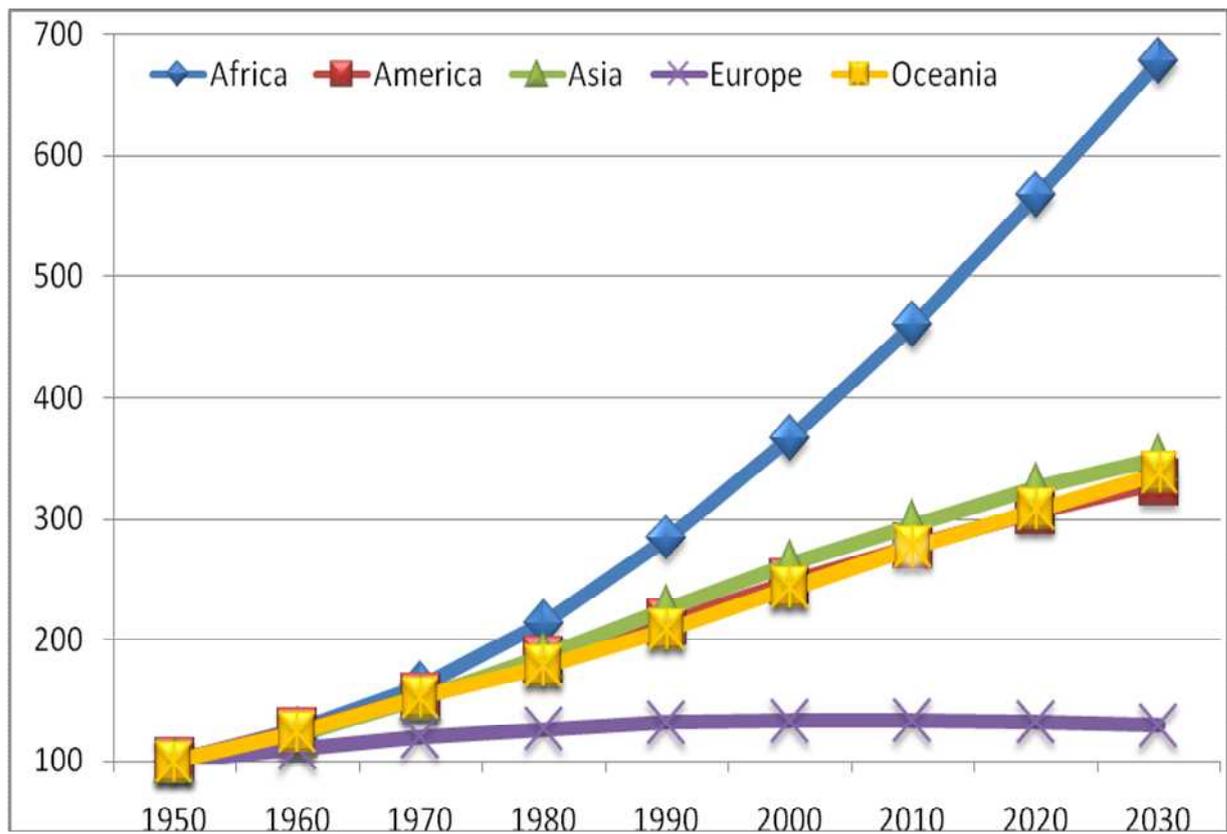


Figure 2: Percentage increase in population for the continents of the world, 1950 –2030 (1950 = 100 %)

The only continent with less inhabitants by 2030 than in 2000 will be Europe (728.5 million in 2000 and less than 707 million by 2030) (Figure 3).

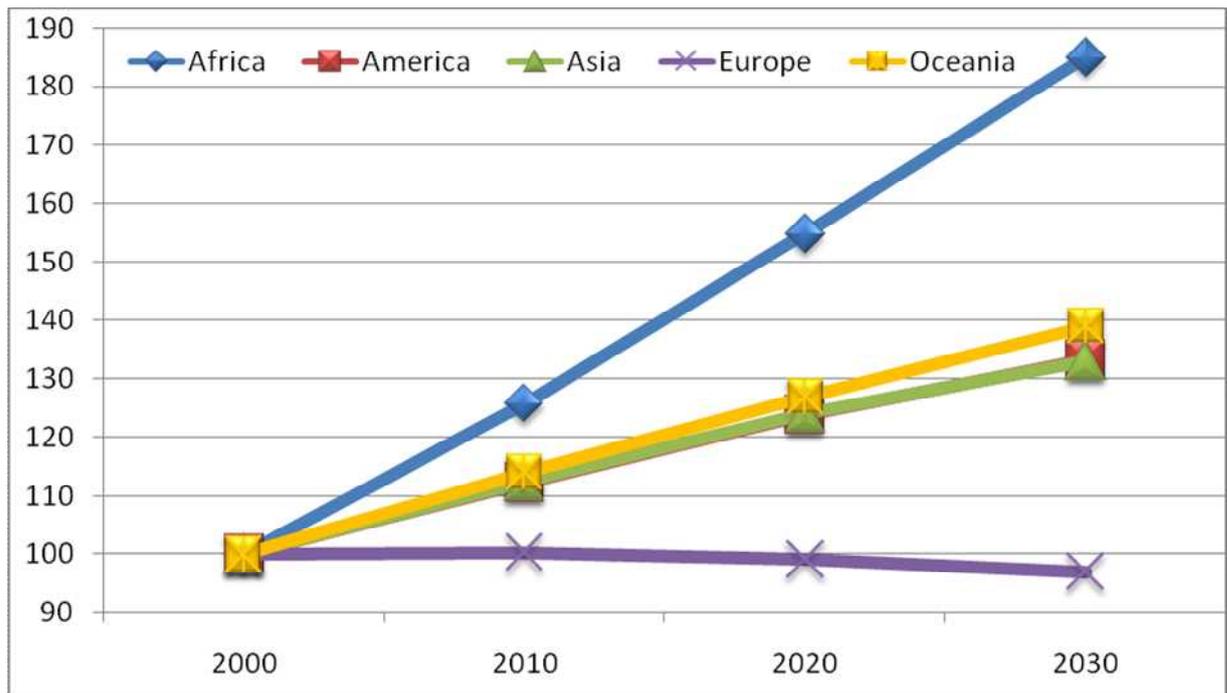


Figure 3: Projected changes in population of different continents between 2000 and 2030 (2000 = 100 %)

Urban and rural populations in the light of the statistical data

The rural population represented almost two-thirds of the total population of the world in the middle of the 20th Century. Since then, the rural population proportion has been decreasing. The rate of decrease remained roughly the same between 1950 and 2000, at around 2 per cent every 5 years, or 0.35% per annum. The projections suggest that in 2030 only 40 per cent of the world population will live in rural settlements, a more rapid rate of decrease of 0.44% per years is projected from 2000 to 2030 (Figure 4)³. The distinction between rural and urban is arbitrary and differs in many parts of the world: a settlement with the same characteristics is rural in a place and is considered urban in another place. The most common used definition regarding the number of population is at 5,000 persons borderline; however this figure is fewer in Mexico (2,500) and larger in Nigeria (settlements with 10,000 or more inhabitants are considered still rural). Other countries (Brazil, China) do not specify the population size, but various other characteristics are using to draw a distinction between rural and urban. (IFAD, 2001) The paper, consequently doesn't take into consideration these differences; the only distinction is the official classification of the settlements.

³ The decrease of the proportion of rural population is alarming, even that the absolute number of rural settlers in some parts of the world is increasing (Table A1 annexed to the paper contains the absolute number of rural population in different continents of the world, between 1950 and 2030).

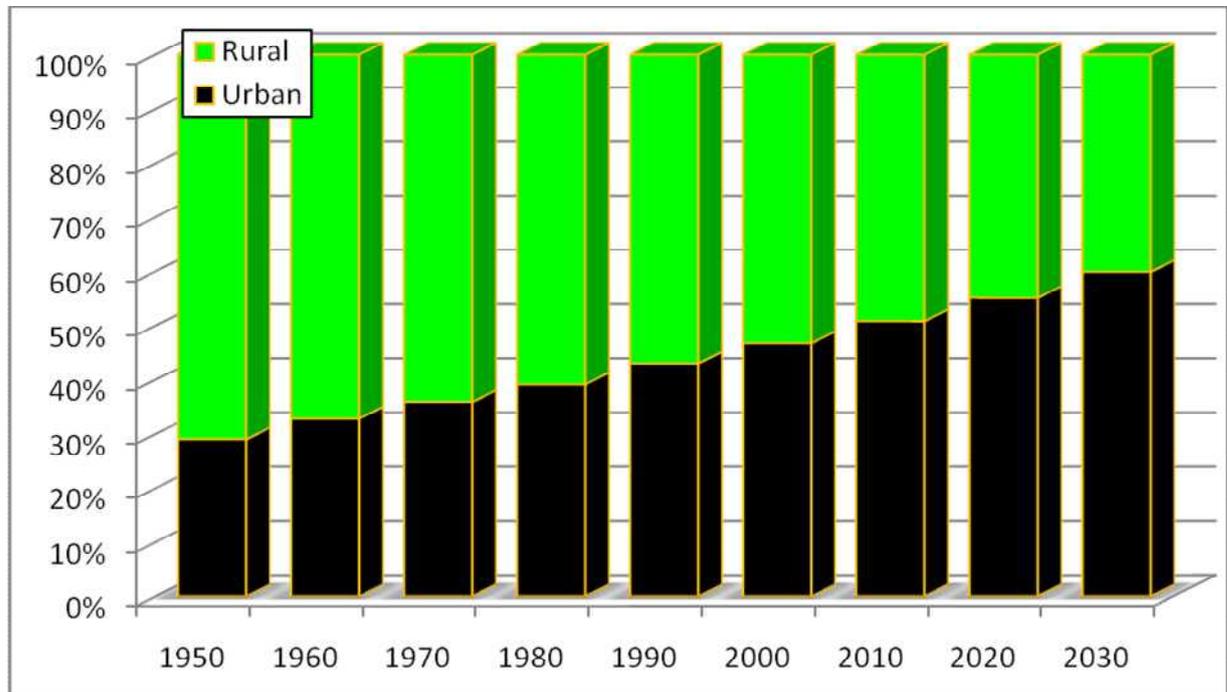


Figure 4: Changes in the proportion of world rural and urban populations between 1950 and 2030

Different continents have different patterns of deruralization (Figure 5). More than 85 per cent of the population of Africa was rural in 1950 and now 60 per cent of the population is still rural. By 2030 in Africa, it is expected that the proportion of rural population will be equal to those living in urban settlements.

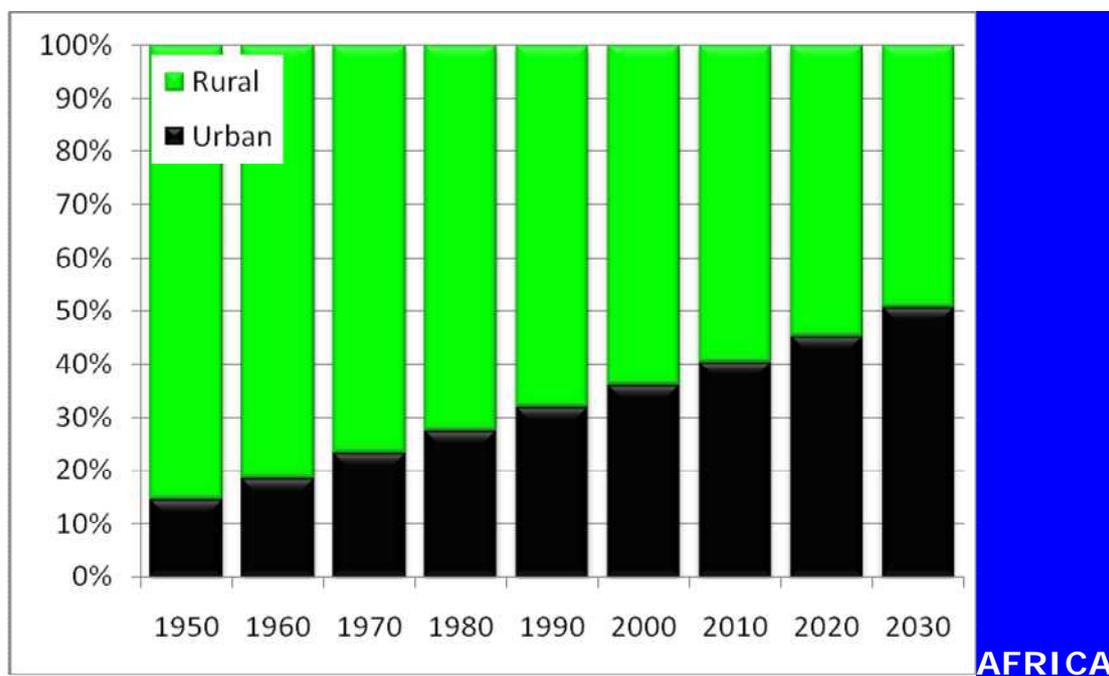
In the second part of the 20th century, Asia experienced approximately the same urbanization pattern as Africa: the proportion of people living in rural settlements which was 83 per cent in 1950 had fallen to below 63 per cent by 2000. However, by 2030 Asia will experience a more dynamic urbanization process and the proportion of the rural population is expected to fall below 46 per cent.

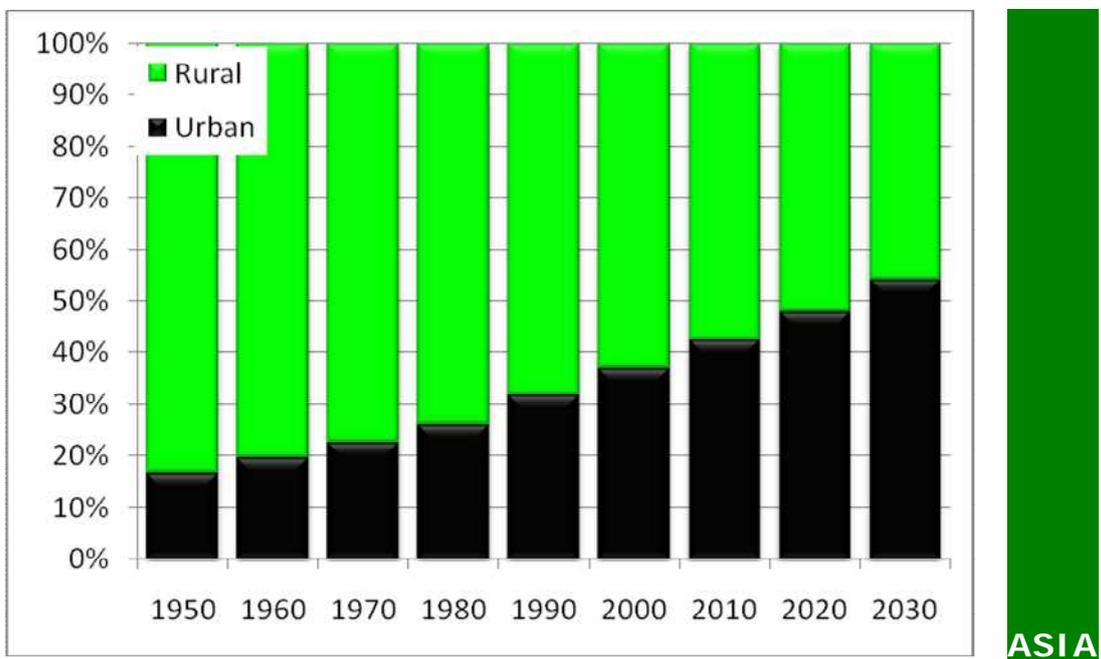
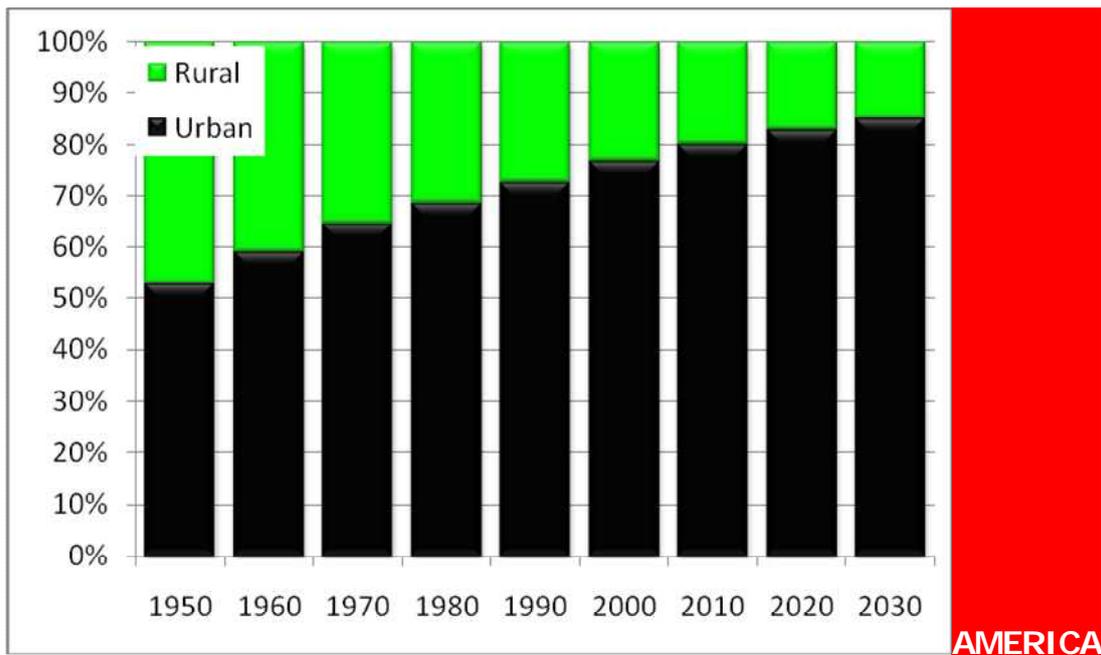
Europe has the same proportion of rural population in 1950 as Africa will have in 2030. Nonetheless, by 1977 the proportion of the rural population had already fallen to one-third, and by 2030 only around 20% will live in rural settlements.

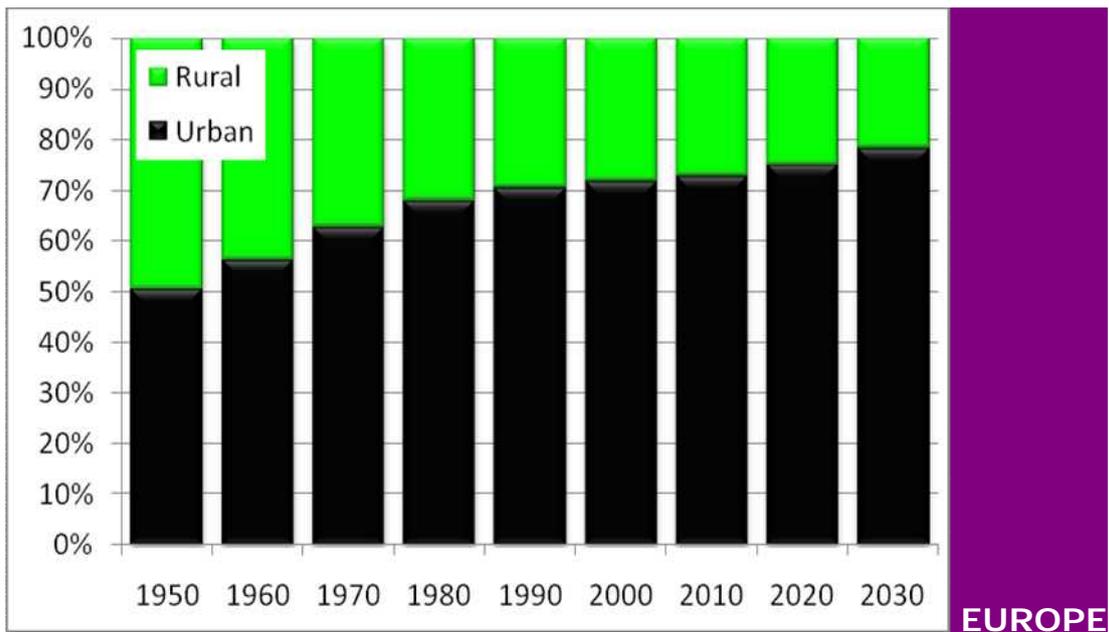
Oceania had the lowest proportion of rural inhabitants in 1950, 38 per cent of total population. The rate of decrease over the eighty years analysed is also the lowest. By 2030, 26 per cent of the population of Oceania will be rural. Oceania however has a particular situation: the majority of population of Australia have had a high rate of urbanization from the beginning of last century. The pattern of deruralization of Australia and New Zealand is similar to Europe or English America; the Pacific Islands however have an accentuated tendency to maintain their rural characteristics.

The two parts of the American continent showed a divergent pattern of deruralization. The Latin-American part of the continent had 58

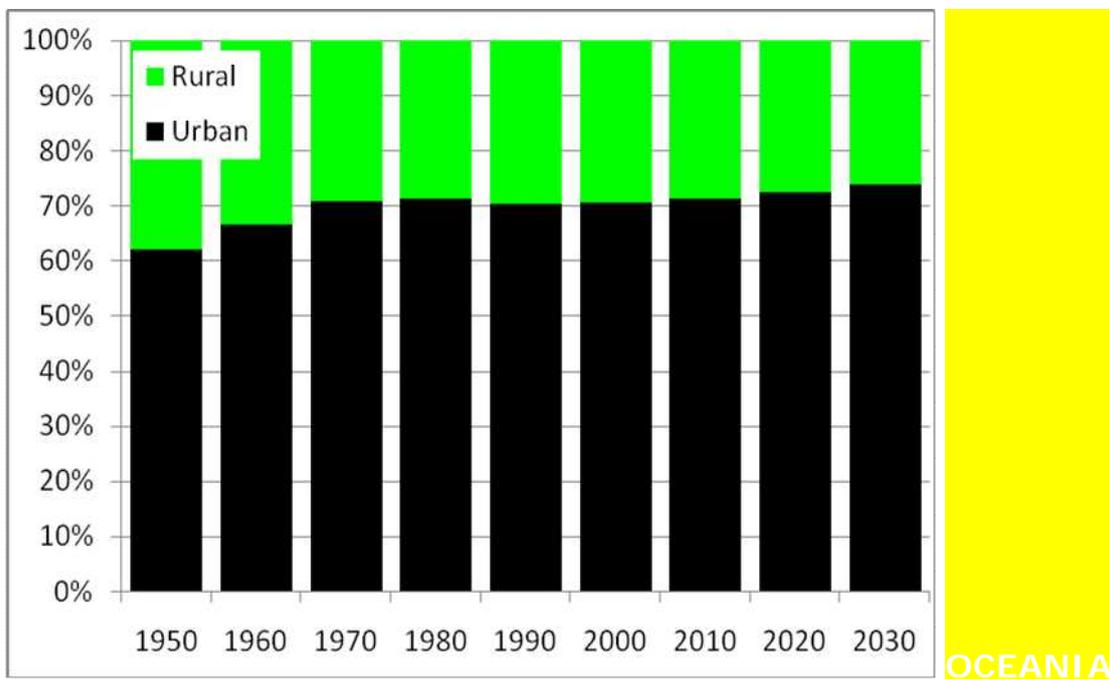
per cent of the population living in rural areas in the middle of last century, compared with only 36 percent for Canada and the United States of America. Latin America experienced a rapid process of urbanization between 1950 and 1980. Even though the process then slowed, deruralization has continued, and by 2030 less than 16 per cent of the inhabitants will live in rural settlements. The proportion of the rural population of Canada and the United States of America has also fallen steadily after a more rapid period of urbanization during the 1950s. By 2030, it will be the region of the world with the lowest proportion of rural population proportion, 13 per cent.







EUROPE



OCEANIA

Figure 5: Changes in the proportion of rural and urban populations in each continent between 1950 and 2030

In 1950 the countries with the highest proportions of rural population⁴ were Lesotho (98.7 %), Burundi, Swaziland, Papua New Guinea (98.3 %), Rwanda (98.2 %), and Bhutan (97.9 %). In 2000, the most rural countries⁵ were Burundi (91.4 %), Bhutan (90.4 %), Trinidad and Tobago (89.2 %), Uganda (87.9 %), Papua New Guinea (86.8 %), and Nepal (86.6 %). By 2030 the countries with the highest proportions of rural population⁶ are projected to include Liechtenstein (80.6 %), Uganda (79.3 %), Burundi (79.2 %), Sri Lanka, Papua New Guinea (78.6 %), and Bhutan (77.6 %).

In contrast, the countries with the lowest proportions of rural population⁷ in 1950 were Belgium (8.5 %), Malta (11.1 %), Qatar (20.8 %), the United Kingdom (21 %), Uruguay (22.1 %), and Australia (23 %). By 2000 the most urbanized countries were Kuwait (1.8 % rural), Martinique (2.2 % rural), Belgium (2.9 % rural), Qatar (5.1 % rural), Bahrain and Puerto Rico (5.4 % rural).

⁴ Pitcairn, Wallis and Futuna, Tokelau have only rural populations.

⁵ Montserrat – with a total population of less than 10,000 – has had 89 per cent of its population in rural settlements.

⁶ Montserrat is projected to have a 78.4 per cent rural population by 2030; Pitcairn, Wallis and Futuna, Tokelau, according to the projections of the United Nations, will have only rural populations.

⁷ Some countries have only urban population (e.g. Singapore, Monaco, Anguilla, the Cayman Islands, Bermuda, and Nauru), however, it is strongly influenced by rural-urban classification.

By 2030 the lowest proportion of rural population is expected to be in San Marino (0.3 %), Puerto Rico (0.4 %), Bahrain (1.2 %), Kuwait (1.3 %), Martinique (1.6 %), and Malta (1.9 %).

Projection of deruralization

The striking and continuous shrinkage in the proportion of the rural population suggests the imperative need for projections of the population across the rural-urban division.

First, we must take into consideration the deruralization patterns and rates during period of eighty years presented in the previous part of the paper. We can calculate when the rural population will disappear presuming that these trends of deruralization continue in

the coming years⁸. The eighty years, from 1950 to 2030 – are a sufficiently long interval of time over which to consider secular movements and calculate a trend line. Since cyclic variations or seasonal movements were not apparent in the figures, the least-squares approximation method is suitable to find the appropriate trend line. The data are presented both for the total world population and for the five continents separately.

The data used until 2030 are based on the United Nations projections.

⁸ The paper presumes only the past trends of deruralization as well as it takes into account the projections made by Population Division of United Nations. The future differences in fertility or mortality between the two types of settlements or the slowing or fastening of rural-to-urban migration processes may affect substantially the pace of deruralization. However, these factors cannot be precisely forecasted and substantial fluctuations may occur. The deruralization is influenced also by several non-demographical factors: rural and urban employment opportunities, housing facilities, institutional availabilities (e.g. schooling, medical care) and many socio- and individual-psychological factors. These factors are complex, highly differ on each part of the world and consequently are incalculable for the present and especially for the future. To take into account such non-quantifiable aspects of the societies might lead to a subjective, distorted projection.

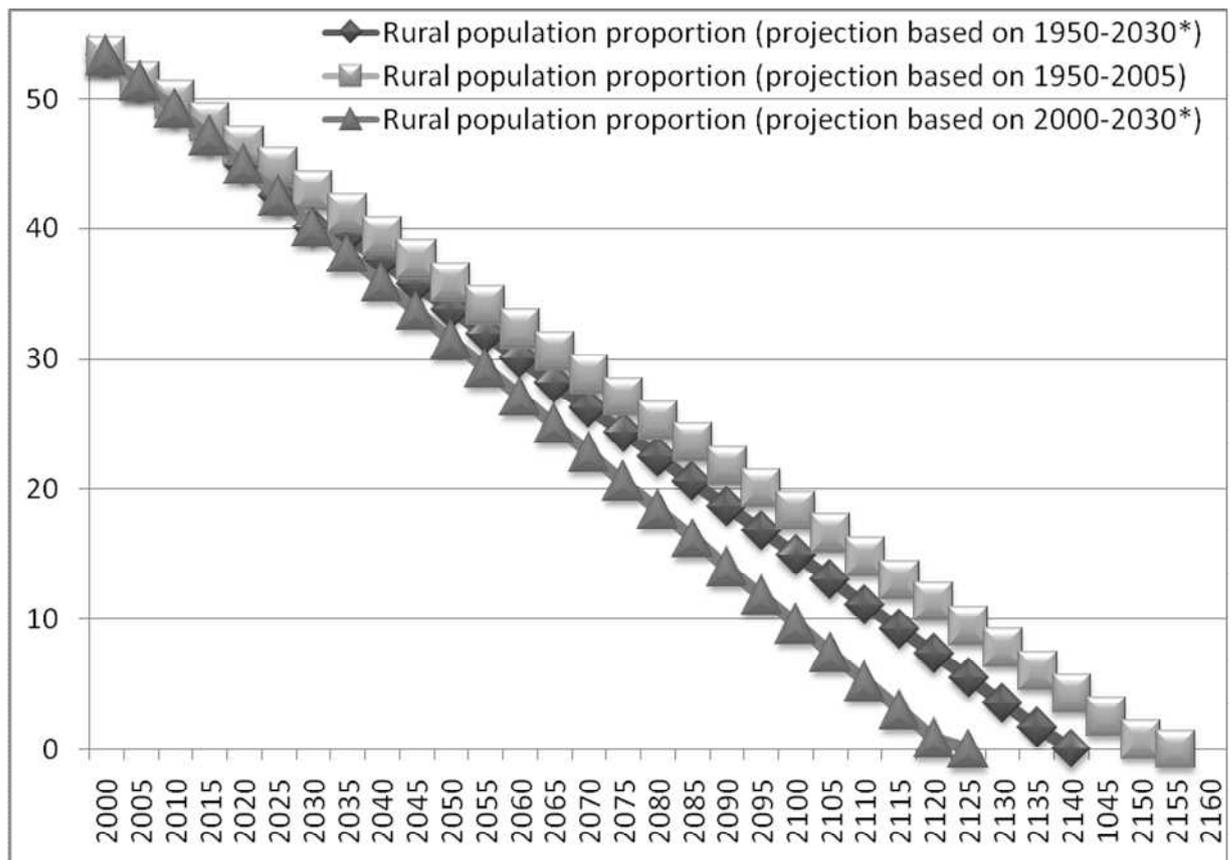


Figure 6: World rural population proportion projections, 2000-2160
 (scenarios are based on data for 1950-2030, 1950-2005,
 and 2000-2030 respectively)

* The projection until 2030 is that of the Population Division of the United Nations.

Assuming the trends from 1950 until 2030 continues, the world rural population decrease is described by the equation:

$$Y = 71,62 - 1,89 * X$$

The rural population would disappear by 2139. This is the medium variant, taking into account the real trends from 1950 by 2005 and the projected acceleration of deruralization estimated by the Population Division of United Nations.

The factual trend between 1950 and 2005 shows a lower speed of deruralization. Based on these data, the equation describing the trend after 2005 is:

$$Y = 71,02 - 1,76 * X$$

In this scenario, by 2152 the total world population would live in urban settlements.

Assuming that the estimation of Population Division of United Nations for the period 2005 – 2030 will continue, the normal equation related to deruralization will be:

$$Y = 53,5 - 2,2 * X$$

Presuming the acceleration estimated by Population Division of United Nations until 2030 would continue after this period, the

deruralization process is the fastest of the three scenarios presented, and the rural population will disappear around 2121.

The five continents have a divergent pattern of deruralization. Each continent is experiencing an urbanization process which is slower in some cases and faster in others. Underlying continuous trends can be observed. Based on observations of trends for the eighty years from 1950-2030, projections have been made assuming that these processes continue.

This suggests that the most rapid deruralization will be experienced by the American continent, where the trend-line can be described by the equation:

$$Y = 44,2823 - 1,9889 * X$$

If these trends will continue, the rural population will disappear in America by 2061, in spite of the fact that the continent had the second lowest proportion of rural population in 1950, after Oceania.

Africa and Asia will experience a similar pattern of a decreasing proportion of rural population. However Asia will have a more rapid rate of deruralization. The normal equations describing the decrease for Africa and Asia respectively are:

$$Y = 85,6647 - 2,2162 * X$$

$$Y = 85,9294 - 2,3787 * X$$

Both continents had a population over 80% rural in 1950. Continued urbanization will lead to equal rural and urban populations by 2022 in Asia and by 2028 in Africa. If the trends continue, the rural population will fade away by 2144 in Africa and by 2131 in Asia.

Europe had a rural population proportion in 1950 close to that of America, slightly less than fifty per cent. The rate of European deruralization between 1950 and 1980 was similar to that of America, but after that the European rate slackened off. The normal equation for Europe is:

$$Y = 44,9471 - 1,5654 * X$$

By 2093 Europe, would have no rural population.

Oceania had the lowest proportion of rural population in 1950. Nevertheless, it also has the lowest speed of deruralization. The trend can be approximated by the equation

$$Y = 33,9823 - 0,4948 * X$$

The rural population of Oceania would only disappear around 2293 (Figure 7).

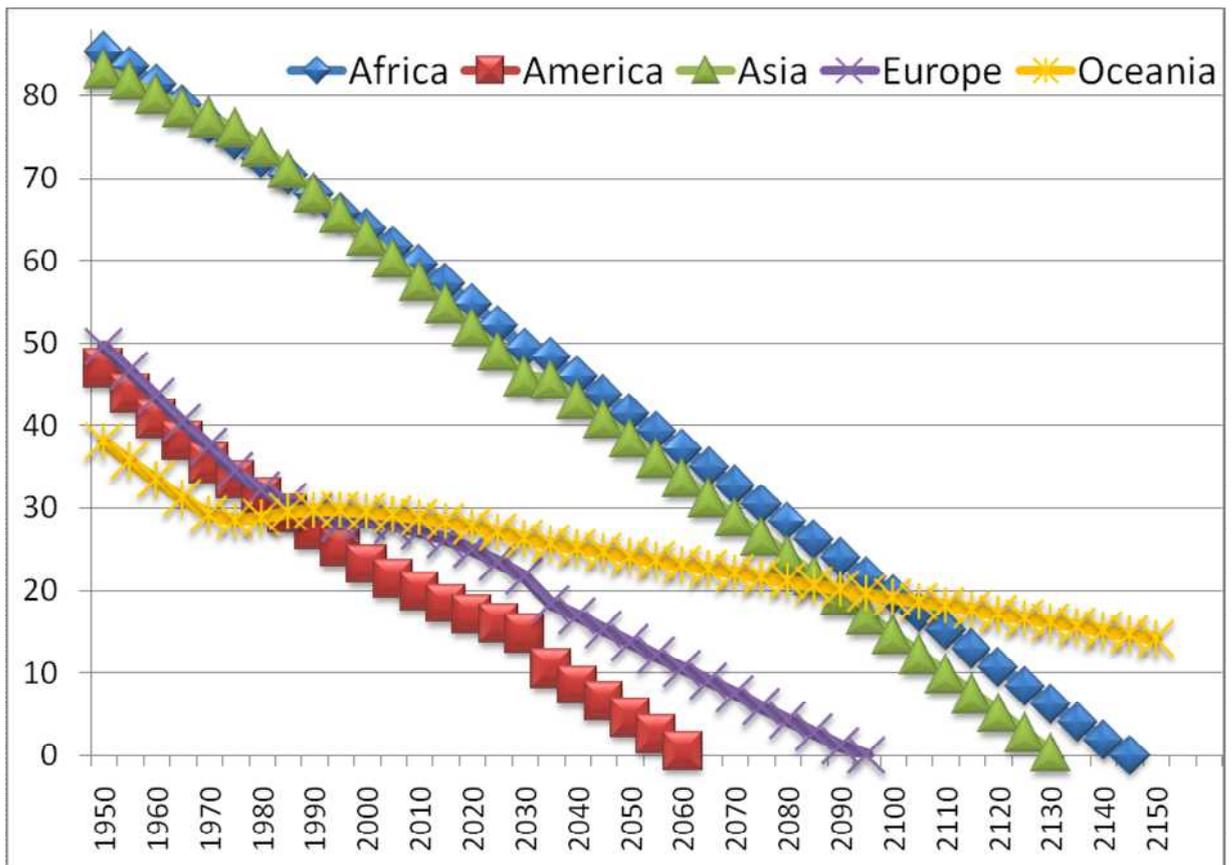


Figure 7: Rural population proportion projections for Africa, America, Asia, Europe and Oceania (projections are based on data from 1950-2030)

Types and consequences of deruralization

Two processes of deruralization can be identified: demographic and the administrative. The principal factor explaining deruralization is the rural-to-urban migration taking place due to industrialization and the lack of income in rural areas. A secondary demographic factor is village depopulation due to the lower life expectancy in rural settlements and, in some places, the lower fertility⁹. Administrative deruralization is less significant than demographic deruralization. It takes place mainly in the developed parts of the world by grouping together a number of smaller towns or villages as urban settlements¹⁰. These quasi-urban settlements however may, preserve their rural character.

The possible consequences are multiple, both at the macro and individual levels, though there will be considerable differences between different regions of the world. Industrialization and the development of the tertiary sector require the concentration of the

⁹ Generally, younger people tend to migrate; in consequence, the lower rural fertility is an indirect outcome of migration.

¹⁰ The counter urbanization process, described as the movement of people away from urban areas to smaller towns and villages in rural locations, characteristic to some parts of developed world (e.g. Champion, 1989; Halfacree, 1994) finally would conduct to deruralization, because of the increase of number of population in countryside, and industrialization of these settlements.

labour force in urban settlements; however the supplementary, indispensably necessary infrastructure is not always available.¹¹

Deruralization through rural-to-urban migration may lead to problems resulting from individual behaviour, above all in the field of health. The migrants are more likely to be at risk from the use of marijuana, crack, cocaine or other drugs as well as excessive alcohol consumption are higher. The prevalence of drug abuse and excessive alcohol use also appears to be higher among international migrants (Borges et al., 2007; Hjern – Allebeck, 2004; Hjern, 2004) and among rural-to-urban migrants (Jirapramukpitak et al., 2008)

The rapid urbanization and the massive influx of migrants from rural areas cause housing problems especially in Africa, Latin America and Asia. A considerable proportion of migrant people are living in shanty towns not supported by water, electricity and transportation.

There is strong evidence that in the developed parts of the world, the rural population has better health conditions than urbanites, even though higher suicide rates have been observed in some remote rural areas (Levin – Leyland, 2005). The fact of better health conditions are reflected also in the higher life expectancy among rural inhabitants (Geronimus et al., 2001). The less

¹¹ There is often a lack of decent housing, medical and old-age care, and schooling facilities for the children of migrants.

developed regions of the world however, experience a higher mortality rate in rural areas and worse health conditions due to the lack of medical facilities and a lower level of health-consciousness than among their urban counterparts. Migrants from these rural settlements will potentially experience deterioration in their health, for the reason that they face an acculturative stress in their new environment. Coping mechanisms might include excessive alcohol consumption, drug use and engaging in unprotected and promiscuous sexual relations. The violence and crime committed by rural-to-urban migrants' remains a considerable problem especially in Latin America, leading to the overcrowded prisons without the minimal conditions for the decent human life.

Another negative effect of the depopulation of rural settlements is the demoralization of remaining population, which is clearly reflected in some parts of the world in high suicide rate among rural aged people (Knight, 2003).

The rural sector's development is decisive in reducing poverty, for the reason that the majority of poor in most of the developing countries live in rural areas. Obvious examples are Southeast Asian countries, where the success of reducing poverty was the growth and development in agriculture. The poverty reduction in these countries is only on relative terms, in comparison with other

developing regions; however, the smallholders in the agricultural sector of these countries together with the efforts in developing the sector led to success (Akiyama, 2004).

In the three largest countries¹² of the world a considerable deruralization is taking place. In China, 87 per cent of population were classified as rural in 1950, but this proportion will fall to 40 per cent by 2030. The 47 per cent decrease is one of the largest in the world in the period under consideration. A massive rural-to-urban migration began from the 1980s, providing the work force necessary for the most rapidly developing economy. The main reason for the migration is the persistent rural-urban income gap. The authorities control the internal migration via household registration system (*hukou*) and as a consequence, most peasants who move to the cities will remain only temporary migrants (Fan, 2002). The rising number of inhabitants of the cities might lead to increasing urban unemployment and criminality which could create major social problems rather than a stimulus for the growth (Seeborg et al., 2000). The rural-to-urban migration in the nineties has become a survival strategy for a part of rural people (Cai,

¹² The three countries with the largest populations in 1950 will remain the largest in 2030: China, India and the United States of America. By 2030 India will have the largest population overtaking China).

1997); the role of return migration in rural transformation is also noted (Liang, 2001).

India had a lower rural population proportion than China in 1950 but the rate of decrease has so far been lower than in China. The population of India of around a billion by 2030 will still be 60 per cent rural by 2030. In India, however, urbanization is a challenge. The urban infrastructure has collapsed in many parts of the larger cities, and all the big cities have large slum areas. Bose (2001) enumerates the following three major problems caused by urbanization: deepening urban poverty, urban unemployment among educated people, and the lack of infrastructure. He states also that there is no need for continuing rural-urban migration.

United States of America is experiencing a 22 per cent-points decrease in the proportion of rural population by 2030, compared with 1950. Presently in the United States of America, less than 20 per cent of the total population is residing in rural areas. Rural dwellers have generally worse living conditions, with fewer services available. In particular, elderly people in rural areas have lower incomes than their urban counterparts (Glasgow – Brown, 1998),

and older people not working in agriculture suffer from economic disadvantages compared with urban residents and rural farm people (Dorfman, 1998). Americans, however, generally accord a value to rural people that exceeds their contribution to the country's well-being, even though rural people have a higher probability of being poor than urban residents (Brown – Swanson, 2005).

Conclusion

The paper has tried to describe the deruralization processes in the past, both for the world and for the five continents separately in the light of the data. Presently fifty per cent of world total population lives in rural settlements, but the deruralization process continues. The projections¹³ presented in the paper show that the rural population could disappear over the coming decades first on the American continent, followed by Europe. Asia and Africa which having the highest rural population proportions will have still rural populations for the next 120-150 years, assuming that the trends of the last few decades continue and do not accelerate. Oceania, with the smallest proportion of rural population, is experiencing the slowest pace of deruralization and is projected to maintain its rural population for the next two centuries.

The population decrease in rural settlements due to out-migration to the cities is growing as a result of the inflow of urban migrants exceeding outflows. The increasing population of cities and uncontrolled, inordinate development is leading to severe

¹³ The projection was based on assumption that the deruralization process experienced in the last decades and forecasted for the next years will continue. Several factors may intervene and change the direction or the pace of this phenomenon.

problems¹⁴. The out-migration processes from the rural settlements is continuous, although it might slower or even turn back, if more rural people will have a critical attitude – as Leonard (2002, p.92) emphasized – toward “... modern values that put profit above human relations ...”

Policies to stem deruralization in the less developed regions of the world might include in the first instance assuring access to improved sanitation as well as an improved and sustainable water source. In both the developing and developed countries the promotion of non-farming activities, means of sustaining the household economy, and diversifying lifestyles in rural areas, as well as reducing the inequalities between rural and urban incomes might slow down or prevent deruralization. Improving the quality of rural life might lead to avoidance of the twisted modernist mentality, whereby the peasant is viewed as a doomed figure, who is not able to face the present and future challenges of the society, therefore his destiny is historical disappearance (Kearney, 1996).

The deruralization process might lead to the disappearance of cultural traditions such as rituals related to marriages, births, and

¹⁴ The slums constitutes one of the main challenges of the developed world. There is an indirect relation between the growing number of people living in slums and the rural-to-urban migration flows. Excessive urban in-migration is creating a surplus of population with limited funds for housing. The influx to the low cost housing market is leading to the increase in slum areas as well an increase in urban areas, diminishing the availability of farmland and forest adjacent to the cities.

deaths), songs, traditional methods food preparation, and traditional costumes, which would result in a poorer, colourless, more uniform world. Losing the traditions of the rural world might be a fatal error, diminishing a substantial part of the (still) living world cultural heritage.

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Annex tables:

| 2030 | 1950 | 1960 | 1970 | 1980 | 1990 | 2000 | 2010 | 2020 | 2030 |
|------|----------|--------|--------|--------|--------|--------|--------|--------|--------|
| 40.1 | 1,7999.9 | 2,037. | 2,370. | 2,710. | 3,018. | 3,264. | 3,398 | 3,442. | 3,335. |
| 49.3 | 191.2 | 229.5 | 278.9 | 347.4 | 433.5 | 523.8 | 614 | 694.9 | 748.5 |
| 14.8 | 159.1 | 173.1 | 183.9 | 194 | 198.8 | 194.6 | 186.6 | 177.6 | 165.5 |
| 45.9 | 1,173.7 | 1,365. | 1,653. | 1,942. | 2,166. | 2,330. | 2,395. | 2,385. | 2,263. |
| 21.7 | 271.4 | 263.3 | 245.6 | 222.5 | 212.1 | 206.2 | 198 | 179.8 | 153.4 |
| 26.2 | 4.8 | 5.3 | 5.7 | 6.6 | 7.9 | 9.2 | 10.2 | 10.9 | 11.3 |

Table A1: Absolute number of rural population in different continents between 1950 and 2030

A2:

| | 1950 | 1960 | 1970 | 1980 | 1990 | 2000 | 2010 | 2020 |
|---------|------|------|------|------|------|------|------|------|
| World | 71 | 67.2 | 64.1 | 60.9 | 57 | 53.3 | 49.2 | 44.9 |
| Africa | 85.3 | 81.3 | 76.6 | 72.4 | 68 | 63.8 | 59.5 | 54.7 |
| America | 49.6 | 40.8 | 35.4 | 31.3 | 27.3 | 23.2 | 19.8 | 17.1 |
| Asia | 83.2 | 80.1 | 77.3 | 73.7 | 68.1 | 62.9 | 57.5 | 51.9 |
| Europe | 49.5 | 43.5 | 37.4 | 32.1 | 29.4 | 28.3 | 27.1 | 24.9 |
| Oceania | 38 | 33.4 | 29.2 | 28.8 | 29.7 | 29.5 | 28.8 | 27.7 |

| | 2040 | 2050 | 2060 | 2070 | 2080 | 2090 |
|---------|------|------|------|------|------|------|
| World | 37.6 | 33.8 | 30 | 26.3 | 22.5 | 18.7 |
| Africa | 46 | 41.5 | 37.1 | 32.7 | 28.3 | 23.9 |
| America | 8.5 | 4.5 | 0.5 | | | |
| Asia | 43.1 | 38.4 | 33.6 | 28.8 | 24.1 | 19.3 |
| Europe | 16.8 | 13.6 | 10.5 | 7.4 | 4.2 | 1.1 |
| Oceania | 25.1 | 24.1 | 23.1 | 22.1 | 21.1 | 20.1 |

| | 2100 | 2110 | 2120 | 2130 | 2140 | 2150 |
|---------|------|------|------|------|------|------|
| World | 14.9 | 11.1 | 7.4 | 3.6 | | |
| Africa | 19.5 | 15.1 | 10.7 | 6.2 | 1.8 | |
| America | | | | | | |
| Asia | 14.6 | 9.8 | 5.1 | 0.3 | | |
| Europe | | | | | | |
| Oceania | 19.1 | 18.1 | 17.1 | 16.1 | 15.1 | 14.1 |

Table A3: Projection of the proportion of rural population in the world and in different continents between 2040 and 2150 (%)