

The sustainable development model has been proposed by the author for both an urban and suburban areas (Fig. 2). The model consists of the economic aspects; social aspects; ecological aspects and land management aspects. The major aspects presented in Figure 2 include - natural resources single system management, new agricultural land-use planning and policy, financial investments for sustainable land projects, preservation, and restoration land resources allocation. This model provides a foreground for sustainable development planning framework.

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ECONOMIC MECHANISM OF SUSTAINABLE DEVELOPMENT OF RURAL AREAS

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Rural areas play a significant role in the development of Ukraine. This area accounts for a third of the total population of Ukraine and almost 90% of the territory on which the basic principles of food security are formed. A large part of the export potential consists of the products, which are produced on those areas. Despite all this, Ukraine has not yet reached the level of EU standards [1].

The necessity of sustainable development of rural areas is connected to many reasons. First is to improve the socio-economic well-being of the population. Second is to increase the degree of competitiveness of the territories at the level of the state economy and international markets. Last but not least is overcoming environmental problems. Sustainable development of territories is one of the main factors of bringing the economy to a completely new level.

Unfortunately, less attention is paid to the development of rural areas than to industry in cities. This is primarily due to the need to reduce the level of environmental issues and maintain nature for the proper, high quality and safe

development of the agro-industrial complex. However, sustainable development includes not only the environmental, but also economic and social aspects. Consequently, the countryside territories undergo a state of degradation. That is why the topic that substantiates the economic mechanisms of enduring development of rural areas is relevant.

Rural areas differ significantly from urban development opportunities, and they can be characterized by [2]:

- Low population density;
- Small number of enterprises and entrepreneurs;
- Predominant orientation of employment in agricultural production;
- Insufficient rural population mobility;
- Low scientific activity, innovations development;
- Stretched communication system.

1 January 2021, the percentage of the rural population reached 30.4%, which is 12,628 thousand people. The decrease can be seen on the figure 1. The moderate decline is caused by the increase of people out of working age, as well as young people who are expressing a desire to work in more technological areas and receive high wages tend to move to the build-up cities with the wide range of opportunities [3].

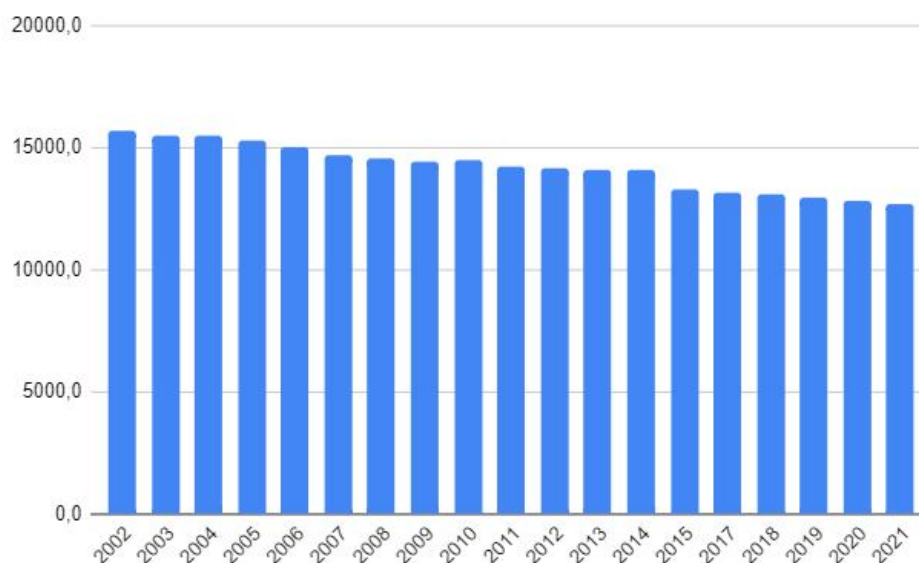


Figure 1 – The number of rural population (thousand people) of Ukraine in 2002-2021. Source: compiled by the author on the basis of the State Statistics Service of Ukraine

Substantially, Farmers suffer from obsolescence and lack of capacity for processing and product storage. To solve this problem, it is necessary to provide them with finances by introducing partial reimbursement and guarantees for loans for fixed, current assets, and increasing the effectiveness of government subsidy programs [2].

An essential task for the development of territories is to improve the conditions for doing business. For this, it is necessary to create favorable conditions

for its formation and functioning. For example: improving the investment climate requires the creation of a convenient environment for manufactures. For this reason, anti-crisis measures have been developed aimed at simplifying the receipt of administrative services, developing a unified economical assessment of agricultural land and improving legislation on the employment of seasonal workers [4].

It is important to open and expand the markets for sustainable sales of agricultural products and ensure access to them for producers. Firstly, for establishing distribution channels organizations whose main goal is to educate and enlighten entrepreneurs on the theme of production effectiveness, development prospects and sales organization must be created. Second is promoting the development of certain sectors of agriculture such as fishing, forestry and others [4].

Nowadays, territorial development is accompanied by the strengthening of scientific potential and the creation of innovative technologies. R&D sphere should be stimulated by local authorities with the help of project funding as well as by drawing attention to research and innovation [4].

In the modern world, the utilization of advanced technologies can be interpreted differently. On the one hand, it is a man-made burden on the environment and nature. On the other hand, these technologies can prevent the problem of environmental pollution, because certain indicators can determine the level of emissions into the atmosphere and their toxicity. The use of resource-saving and environmentally friendly technologies, control system improvement, prevention of ecological catastrophes, and general increase in the sphere of ecological literacy are the keys to sustainable and long-term evolution of rural areas. Thus, economic development and economic growth do not affect the state of the environment negatively if applied proper methodology of usage [5].

In conclusion, the development of rural areas is an unbiased process that occurs in the country under the influence of economic, political, social, demographic, resource and other factors which are supervised by the district, regional and national authorities. Economic growth must be accompanied by outer governmental and financial support, stabilized social transformations and contribution to solving the problem of environmental pollution.

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LONG-TERM HOUSEHOLD ELECTRICITY DEMAND FORECASTING TAKING INTO ACCOUNT AVERAGE MONTHLY TEMPERATURES

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Long-term household electricity demand forecasting is one of the tasks of the corresponding problem of forecasting the general demand for electricity in any region or country. This task is also relevant for Ukraine, which, in turn, necessitates the search for approaches to developing new more accurate forecasting methods. One such approach in the long-term forecasting of household demand for electricity may be to take into account average monthly temperatures. This study is devoted to the study of known approaches in the world to this approach.

Scopus was used to search for relevant scientific papers. No results were obtained for the query "TITLE-ABS-KEY (household AND electricity AND demand AND forecasting AND average AND monthly AND temperatures)". Only 3 works [4, 9, 18] were received for the query "TITLE-ABS-KEY (household AND electricity AND demand AND forecasting AND monthly AND temperature)". The request "TITLE-ABS-KEY (household AND electricity AND demand AND forecasting AND temperature)" received 27 publications [1-22 et al.]. Next, let's look at key points from the most relevant publications over the past three years.

The purpose of paper [4] is to investigate the impact of temperature on residential electricity demand in the city of Greater Accra, Ghana. It is believed that the increasing trend of temperatures may significantly affect people's lives and demand for electricity from the national grid. Monthly data for the temperature and residential electricity consumption for Greater Accra Region from January 2007 to December 2018. Data on monthly electricity demand and temperature are obtained from the Ghana Grid Company and GMS. The theoretical framework for residential electricity consumption, the log-linear demand equation and time series regression approaches was used for this study. To demonstrate certain desirable properties and to produce good estimators in this study, an analysis technique of ordinary least