Public welfare is the most important socio-economic category in macroeconomics. The level of social welfare of citizens is determined by the compliance of actual indicators with existing norms and standards, however, it is rarely used when comparing effective economic indicators among countries of the world. However, taking into account negative environmental externalities leads to a violation of the market situation and a decrease in the country's GDP in conditions of environmental degradation and irrational use of natural resources.

The basis for the introduction of a circular economy is the sorting and recycling of waste, minimizing negative externalities in production activities. Ukraine has a negative tendency to introduce recycling, and most industrial enterprises use outdated, environmentally hazardous technologies that negatively affect the ecosystem. The processes observed in Ukraine are cumulative in nature, and the development is due to ecosystem degradation, that is, when negative losses in cash are taken into account, most enterprises must have negative indicators of economic activity, since more than could be spent on restoring the natural environment and production costs get profit from the sale of goods.

Therefore, in the proposed monograph, sponsored by Viktor Koval, Inessa Mikhno and Mariana Petrova “Management in the field of waste management in the transition to the circular economy in Ukraine”, the problems of the formation of a circulating economy where the basis is the waste management scheme are investigated.

The monograph studies that the filtrate from landfills is enriched with toxic substances that make up the waste, or are products of their decomposition (heavy metals, organic, inorganic compounds) and negatively affects the vital activity of soil microflora and plants, the enzymatic activity of soils and their fertility, and therefore the quality of agricultural products.

The scientific results of the study indicate the solution of a number of theoretical and methodological issues of improving the sphere of household waste disposal in Ukraine, the methods of analytical accounting of losses from the functioning of landfills.

The author’s scientific novelty consists primarily in substantiating the current situation in the field of waste management from the perspective of maximizing public welfare, creating models of anthropogenic impact on the ecosystem and models for analyzing the degree of introduction of the circular economy in the country, which contribute to the introduction of new environmentally and economically sound technologies in Ukraine.

In the applied aspect, it represents the conceptual basis developed by the author for the
formation of a model for calculating the anthropogenic impact on the ecosystem and forecasting the introduction and development of a closed-loop economy in Ukraine, which is based on the scientific, technological and innovative development of resource-saving systems based on the formation of the waste processing and utilization industry. The experience of the developed countries of the world indicates the possibility of achieving significant economic, environmental and social effects through the formation of the waste management industry and turning it into an integral element of the socio-economic infrastructure of regional economies.

The monograph highlights the problem of increasing the amount of waste and the environmental impact of landfills, and evaluates macroeconomic indicators taking into account the environmental impact factor. A comprehensive theoretical analysis of the current state of the sphere of waste disposal, a justified organizational and economic basis for their disposal, and ways to solve the problem of waste accumulation are considered.

The scientific results of the study indicate the solution of a number of theoretical and methodological issues of improving the sphere of household waste disposal in Ukraine, which increases the function of the country's public welfare.

Using the models indicated in the monograph, it is possible to calculate the environmental burden from anthropogenic activities, determine the damage done and analyze the degree of introduction of the circular economy in a country or region.

Technologies and strategies for introducing a circulating economy have been developed and partially implemented in developed countries, therefore, Ukraine can adapt them to internal capabilities and needs, and will reduce risks associated with innovation. The evolution of the economies of countries is necessary for the simultaneous development of the world economy and increase the potential of Ukraine and improve the quality of life of the population.

The monograph of the authors Viktor Koval, Inessa Mikhno and Mariana Petrova “Management in the field of waste management in the transition to the circular economy in Ukraine” is a significant contribution to solving complex methodological problems associated with preserving the environment and developing a closed-loop economy in Ukraine.