

RESEARCH ARTICLE

The Cultural-religious Services in the Circular Economy

Popescu (Spârchez) Nicoleta*

Bucharest University of Economic Studies, Romania.

*Corresponding Author: E-mail: sparcheznicoleta@yahoo.com

Abstract

The resources are very important for the mankind, without them the human cannot exist. In this context, the society must be responsible and conscious that it has to learn to live in conditions with limited resources. Therefore, the presentation of the concept of linear economy versus the circular economy, presupposes observing the way in which the goods and services are produced and used.

In the contemporary society it is noticed a more and more intense need of ensuring a balance between the unlimited and limited resources, between the consumer specific to the linear economy and the user, specific to the circular economy. According to these desires, step by step there appeared a series of services, we can generically call human-sustainable services, capable of satisfying a varied range of needs that people have from birth until passing. The educative cultural-religious services are a new concept that can be implemented, taking into consideration the three types of services (cultural, religious and educative) and the needs and possibilities of the children and of the young persons of acquiring new knowledge in various fields of activity according to the cultural and religious values.

Having in mind the concept of circular economy and the features of the services from this point of view, the objective of this approach consists in understanding the influences of certain particularities regarding the evolution of the Romanian society in this context. For this purpose there will be presented a research based on the analysis of some indicators that reflect certain aspects regarding Romania at national level but also in the European context.

Keywords: *Circular economy, Services, Population, Resources, Culture, Religion.*

Introduction

Presently, there are can be observed more and more preoccupations specific to a new type of economy, the circular economy which presupposes: the recycling of the goods that are used physically and morally, the ways of destruction with observing certain environmental standards, the reuse, repair and update of the goods and services so that their normal useful life is prolonged. Moreover, within this economy there are caught a series of features specific to the sustainable economies that have in the center the human, the nature and the progress.

With respect to promoting and implementing this form of economy, there must be performed a series of changes and transformations which will reflect at the level of the villages of the world and within the tertiary sector. In this context, it is insisted upon a certain category of services that are meant to serve the users and not the consumers. The cultural-religious services presuppose new forms of approach within the circular economy. These services are important for the tertiary sector and, at the same time, for the developing economies. The purpose of this study is the presentation of a series of indicators

for the Romanian society, indicators that will reflect certain aspects of the circular economy. From this perspective, there were analyzed, for a period of twelve and respectively thirteen years, the GDP/inhabitant and certain events regarding the number of newborns, the deceases and marriages, having in mind the fact that an economy can develop by preoccupying about the chances of the future generations.

At the level of the European Union and in the worldwide context, these aspects are reflected by the Human Development Index and by Index of Economic Freedom, indicators that also catch aspects specific to the circular economy. In this study, in the last section, the two indicators are caught, establishing the position of Romania in relation to the other states of the European Union but also in relation to the other states of the world.

The Resources, the Linear Economy and the Circular Economy and the Sustainable Development

In this moment, we wouldn't be talking about the market/linear economy or about the circular

economy without resources and factors of production.

The Resources

The natural resources (water, air and land) are the essence of life on earth, without them the humans cannot exist. That is why, for the entire life, during the development and the accumulation of capital, the society must be responsible and conscious that it has to learn how to live in conditions with limited resources: "Many of the vital resources of the Earth are about to be exhausted, the chemical composition of the atmosphere deteriorates, and the globe's population reaches a pretty dangerous level." [7]

In opposition to the followers of the theory mentioned previously, we find the ones who state that there is an abundance of material, human, technological and cultural nature resources [14] and the fears regarding the exhaustion of the natural resources and of the technological potential are unfounded.

We must notice that the two principles developed, in time, two different approaches regarding the economy. The first concept is at the basis of the circular economy, and the second one has in mind the linear economy.

In the circular economy, the enhanced attention is directed towards the resources. At the same time, they are the most important elements of the national wealth and can be classified in [11]:

A. Primary resources

a. Natural material resources attracted and non-attracted in the activity:

- Non-renewable or exhaustible (beddings of fossil fuel and ores);
- Renewable (land, water, air);

b. Human resources;

B. Derived resources

a. Accumulated material resources (machines, equipments);

b. Financial or capital resources (money, securities);

c. Environmental resources (flora and fauna);

d. The creative potential of the nation (the science and technology stock, the education stock, the stock of public health, the culture and civilization stock).

The existence of these resources and their importance in the economical activities is presented in the Bible. In the six days in which God created: the sky and the land, the day and

night, the water and earth, the luminaries (the big luminary for the helm of the day and the small luminary for the helm of the night), the plants and the animals the water and land, the human (male and female), the resources of the land (gold and onyx stone) (The Creation: Chapter 1, 1-25) [4]. Infringing the divine interdiction, Adam and Eve, impelled by the snake, ate from the fruit of the tree of the knowledge of good and evil of Eden. Therefore, the human was banished by God from Eden in order to develop certain activities in a new economical world [14] "to work the land from which he was taken" [4] (The Creation: Chapter 3,23), to eat "to eat and live forever ..." [4] (The Creation: Chapter 3,22).

In the past and in the present, the human was preoccupied to satisfying the needs, in order to live. In the mentality of the responsible human, it appears frequently the preoccupation for the day of tomorrow and for ensuring the possibilities, for the future generations, of satisfying the needs.

The Linear Economy Versus Circular Economy

With regard to the *linear model*, it can be made a brief presentation of the stages the goods and services take from their manufacturing until their consumption, through three verbs: *to take*, *to do*, *to throw away*. [19] In the model of *circular economy* the human is preoccupied to produce goods and services in a manner in which the most important things are: the technological flows used, the way in which they are exploited, the manner in which the goods/services that cannot be used (wastes) are self-renewed. By being repaired, improved/reconditioned, reused or recycled the wastes [14], which are not biodegradable, can be used as raw material in a new technological flow. For the biodegradable wastes, there will be developed activities for collecting and monitoring the manner of degradation under the action of some biological factors.

In the linear economy, which contains theories specific to the common economical system, it appears the consumer, whose role is to use and to exploit the respective good, not existing a preoccupation for the way in which the goods and services, that are used physically or morally, will be recycled, destroyed, reused, repaired, updated etc. This uses, by choice, the vertical or horizontal approach of the three economical sectors (primary or agricultural, secondary or industrial and tertiary or of the services) [14].

The *vertical* economic concept treats separately the three sectors of activity, observing, in time, the change from an agrarian society to an

industrial one and presently to the one of services [5].

The concept of *horizontal* economy presupposes the overlap of the three activity sectors: in an industrial society or in which the services dominate, the agriculture doesn't disappear because this sector of activity will contribute to satisfying the basic needs; in the three types of societies, the industry will also have a special role because it will contribute to satisfying the tangible needs, while the functions of the services will be found in all the three types of economic activities [14].

The most practical example in the field of the linear economy is the one of the disposable products: it is produced a lot, it isn't emphasized the fact that the resources are limited, the products deteriorate quickly (at their first use) becoming wastes, and the intermediary services, necessary for satisfying certain needs at the moment of the manufacture or sale of the products so that they ensure the prolongation of their useful life, are practically inexistent. Recently, more and more companies observed that this linear system increases the exposure to risks, but especially it determines the appreciation of the resources and the inefficient alimentation [19].

If the linear-horizontal model, specific to the new economy [14] will be complemented by methods and techniques that have in mind: the storage, distribution, monitoring of wastes and also of their harmful effects, then we could talk about the concept of circular economy.

The *circular economy* is an industrial system which is based on restoration and regeneration by intention and design [18]. This system must be thought as the water circuit in nature:

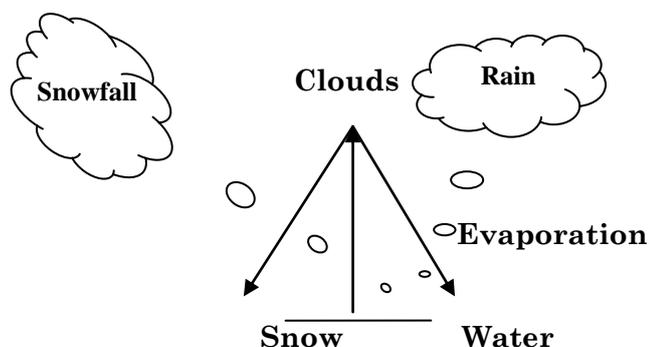


Fig. 1: Circular economy-water circuit in nature

(Source: Graphic made by the author)

During the process of manufacturing a product, there can be distinguished the following stages [14]:

- Conception and design;
- Manufacturing (Transformation of resources);

- Distribution(transportation, packaging, storage,
- Marketing, promotion);
- Useful life (usage);
- Disposal (waste collection, recycling and discharge).

In order to be more competitive, a circular system must ensure a pretty high efficiency level of productivity, which will involve [18]:

- The circular design by improving the materials used and by designing the products so that they ensure flows of pure materials that can be disassembled (services of software updating);
- Models of innovative businesses that involve modifications regarding the property right induced by new forms of payment (financial leasing);
- Performance in the reversal of the cycle in cascade, ensuring an increased efficiency from cost to effect for the collection and application of the system based on the concept “nothing is lost, everything is transformed” (by the initial producer or by third parties) (for instance: the reuse of the wastes from beer, increasing the total number of persons through fertilization, increasing the capital through investments, the money from the term and demand deposits [6] etc.);

The circular economy can have two edges that involve or not the people. Therefore, there can be:

- Circular systems perfectly robotized, specific to the secondary sector, respectively the industrial one and which represent a simple vision, belonging to a necessitarian world in which the information is perfect and the abstract confidence can lead either to a pseudo-religious system or to the elimination of any challenge regarding the stimulation of development, creativity and intelligence[14]. In the field of services, there can be noticed this tendency in the services based on equipments[16] (automatic machines that sell with coins, car washes in which the washing is performed by robotized commands by equipments driven when the coins are introduced, automatic machines that collect products that can be recycled);
- Circular systems that depend on the presence of the persons in the technological flow, which involves the existence of certain services.

In the first system, the human is replaced totally in the technological flow by the robot creating thus the premises for saving resources (energy), decreasing, at the same time, the costs with the labor force by reducing considerably the positions in the technological flow. In this system the human intervenes only in the stage

of supervision and usage of the good or service and it appears the existential problem of the individual.

The second system takes into consideration the presence of the human in the technological flow, imposing new services that will ensure a perfectly circular integration of the human in the economical activities and processes and in nature.

Because the human is created by God on Earth, he must be given a chance to life, to a decent life. In this context, the circular economy will impose the replacement of the consumer with the user of goods and services, existing a permanent preoccupation about the way in which the goods and services physically used or morally outdated will be recycled, destroyed, reused, repaired, updated etc.

The most recent studies in the circular economy field draw the attention upon the importance of separating wealth and welfare from the consumption of resources by a series of measures that will take into account [21]:

- Replacing the GDP as main objective of the development;
- Triggering the services and the eco-systemic biodiversity;
- The quantification of the depreciation and the degradation of the bio-diversity and establishing some forms regarding the assignment of financial funds with this destination in the national budgets and in the budget of the private agents, in order to eliminate the causes and effects of some actions;

Both the concept of circular economy and the one of linear economy have an essential role in the economic development and progress, just as the famous dictum “A good farmer makes a good farm” intends to remind us continuously about the importance of the *resources* and also about the importance of the *human's behavior* in society.

The Circular Economy and the Sustainable Development

The circular economy and the sustainable development have in the center the human, the nature and the progress. The importance of establishing some correlations between certain dimensions (economical, ecological, demographic, spiritual-cultural, military etc.) and also some new strategies for the rightful distribution of the income and wealth, at the level of the world's countries, will be at the basis of the new social order imposed by the sustainable development. [6]

The strategic activities and actions regarding the sustainable development in the context in a

circular economy are found between the preoccupations of a more and more considerable number of states of the world, but especially at planetary scale. For this purpose, starting with the XIX century, there were established a series of connections that have in the center the environment, general wealth and economical development. From this aspect, there are several points of view that materialize in certain forms [6]:

- Of sustainable development between two extreme limits: stopping the economical increase (the first report of the Club from Rome) and generalization of the role of the natural environment (the vision of the green side);
- Of reconciliation between the economy and environment so that the long term human progress is sustained (the Brundtland report).
- The balancing of the two extremes (stopping the economical increase and the generalization of the role of the natural environment) in a form of reconciliation presupposes formulating some long term strategies that will take into consideration some profound changes within some systems[1] (economic, human, ambient and technologic) taking into account the action of some factors that determine the progress and the development[6] (population, natural resources, natural environment, agricultural production, industrial production, pollution).

In the context of the sustainable development, the actions from the circular economy will lead to saving resources, and the ones from the economy based on knowledge leads to the reorientation of the resources, and together with satisfying the needs there will be registered an economic progress both on general and individual level[6].

The Human and the Sustainable Development

In the economic environment of the society of today and tomorrow, the progress is an aspect that must not be neglected because it makes the difference between the rich nations and the poor ones. In this context, there must be noted that fact that the economical development depends on three factors [15]: the humans, the institutions and the resources.

In the context of the globalization, the human has two valences: he can be an unlimited resource but, at the same time, he is a big consumer or he can be a limited resource and, at the same time, consumer.

In the contemporary company, it is observed a more and more intense need of ensuring a balance

between the unlimited and limited resources, between the consumer specific to the linear economy and the user specific to the circular economy.

For the *resources'* perspective, the human must be seen as having a great capacity of reproduction and adaptation, survival so that he succeeded in spreading on the entire planet Earth, dominating other species of animals. From Adam and Eve until present, the number of inhabitants, at global level, increased from two to seven billion[15]. For surviving to the great changes and transformations, the human was seen in quality of:

- a) human resource necessary for producing goods and services, which was used in more forms:
 - Exploitation-the slaves lacked certain rights and freedoms, being used for their labor force;
 - Trade off-labor performed for obtaining other resources necessary for the existence;
 - Employment -remunerated activity;
 - Motivation-activities developed as hobby (sport, culture, gardening, travelling, dance, gastronomy), learning (practice, training courses), volunteering (religious assistance, humanitarian assistance for the disadvantaged, the sanitation of some perimeters from nature).
- b) consumer/user, carrier of the request for goods and services with a view of satisfying his needs.

The human, can be considered an *unlimited resource* if he is encouraged to develop both physically and intellectually.

Thus, his family will become more numerous and as the society evolves, he will adapt permanently to the new transformations imposed by the technical progress. If, at the beginning, food was not a problem and it could be procured by hunting and by picking up fruits from nature, once the density of the population increased these activities performed in the Bronze Age, seem to be inefficient. The economical activities were revolution by certain knowledge specific to some periods within the activities in agriculture, industry and services.

At the same time, there are discussions about the user, a concept developed by the *utilitarians*, which recommends satisfying the options that can be found at the largest part of the population and the own values are not imposed [12].

Taking into account the aspects presented previously, from the point of view of the sustainable development and of globalization, the

human is one of the resources essential for the society's progress in general and for the development of the services, in particular, contributing through his actions to the deterioration or protection of the environment and of the future generations. For this purpose, the actions taken by the society developed a series of services that reflect certain particularities, presented and developed in the next sections.

The Services in the Context of the Circular Economy

In the field of services, the value is determined by performance and by the actual use[14]. The statement, according to which, the economy of the services has a stronger immaterial and less material character indicates the fact that in this field is essential the concept of system[14] which will have a certain result[14]. The changes made by new forms of development imposed by the circular economy but also by the one based on services determines certain reactions at the level of the world's villages.

In these societies, there are made a series of steps regarding the reconstruction of a new image of the future by [14]:

- Moving the weight center from the "hardware" (material tools – belonging to the classical industrial revolution) to the "software" (methods and forms through which the material tools serve certain needs). This reorientation presupposes the development of the services' economy by assuming some risks that must take into consideration the real possibilities, respectively the increasing importance of the human quality which is attached to the product's quality;
- The balance between the request and offer by developing services mainly in the field of the offer, but also in the field of request.
- The changes of the socio-economic climate, as a result of the scientific progress, by creating or stimulating some conditions of non-balance with positive results that are reflected in the dimensioning of the offer in conditions of risk and incertitude. These modifications depend on the way the social and natural sciences (hard and soft) influence each other in order to obtain a result at the knowledge level, beneficial from the cultural and religious inheritance point of view.

Adapting the present economies and societies with a view to observing some specific requests of the circular economy presupposes big investments as well as the development of some specific activities that will engage, in a programmed

manner, the organizations and the individuals in some actions that have as purpose rising of the life standards for the biggest part of the population.

The Particularities of the Services in the Circular Economy

If we confront the services and the circular economy, we can say that by their immaterial character (impalpable, intangible, that cannot be seen, tried, tasted) [10], the value of the services from the circular economy is given, first of all, by the fact that the services satisfy immaterial needs (education, health, insurance, financial, protection of the environment, safety), and, second of all, it ensures certain possibilities for the reuse, repair. In this context we can find [10]:. Moreover, the services should serve the users and not the consumers because within the model of circular economy, there will be less owners of goods/services and more and more users of goods and services. [19]

In the circular economy, the services must observe the meet some requirements [14]:

- To diminish the consumption of energy;
- To save resources;
- To use the qualified workforce;

To develop activities of recycling, reconditioning, repairing, reuse, maintenance.

If we consider the human as being a product of society, among the preoccupations of the circular economy there will be found the development of some services that will ensure the increase of the life standards, will improve the standard of living but will also grow the life expectancy of each individual.

According to these desires, step by step there appeared a series of services, we can generically call human-sustainable services, capable of satisfying a varied range of needs people have from birth until passing. Thus, the services can be grouped into:

1. Services for the self-regeneration of the individual (maternity, medical services, services of family planning, religious christening services);
2. Services for satisfying the basic needs of the individual (services regarding the food, clothing, dwelling);
3. Services for the development of some skills, habits and of training the individual (educational, cultural, religious services);
4. Services for maintenance, health improvement and prolongation of the life expectancy

(sportive services, medical services, curative and recreational services, environmental services, services);

5. Services of recovery, reuse and in case of decease (blood and organs collection services, funeral services).

Within the services for the development of some abilities, skills and of training of the individual, there is observed a series of services that can be approached separately as cultural services, religious services and educative services or as a whole, respectively, educative cultural-religious services..

The Educative Cultural-Religious Services in the Circular Economy

The educative cultural-religious services presuppose a new approach of the three types of services (cultural, religious and educative) in a whole, so that the main beneficiary, the child has the possibility of acquiring new knowledge from various fields of activity according to the cultural and religious values.

In the development and implementation of this service, it must be remembered that: “The intellectual services are not only a corollary of the development but also the cause of the development.”[3]

As it can be observed in various countries, the people represent the intellectual resource of the economical structure, which contrary to the projects of the World Bank [5] must not be wasted by the commercialization as simple workforce (L) or by encouraging the migration in the more developed countries, but it must be allured for the use of the own countries (less developed) as their most important capital. [3]

In this context, both the circular and the linear economy will generate services that must ensure:

- The future generations’ right of having at least the rights of the present generations;
- The usage of the resources so that the distribution of the economical power is done equitably with a view to ensuring the vital needs;
- The stimulation of the competition and not of adversity with a view to diversify the biological and spiritual-cultural life;
- Cultivating some human attitudes that give the right to dignity but also to responsibility.

From the point of view of circular economy, the future generations must benefit from equal chances for developing in the future. That is why,

the identification of the *knowledge group (gaps)* and of the *strategic group (deficiency)* at an organizational level [13], at a national level is a preoccupation that must be approached as a long term investment in the human capital. In order to obtain an increase of the income and profit, the employers will have to hire personnel that has more and more knowledge, but, in their turn will be interested in investing in human resources [2].

For the development and progress, with a modernization anchored in the millenary tradition of a civilization, the reformism will contribute to the development of the services in general and of the educative cultural-religious ones in particular.

Evolutions of the Romanian Society in the Circular Economy

The followers of the principles that are at the basis of the *circular economy* consider that, in the

future, the main objective of the development shouldn't be considered as being the GDP, while the *capitalists* admit that this indicator has its limits but, as the economies of certain states are more powerful because of the wealth, the people can afford certain services that contribute to increasing their life's quality [17]: upper medical assistance, protection of the environment, education etc.

Even if the GDP/inhabitant doesn't catch totally the aspects of the circular economy, it is a very important indication we should take into consideration when we are talking about progress.

Therefore, with a negative evolution of the inhabitants number, in Romania, for the period 2000-2012 the GDP/inhabitant has the following values:

Table 1: Gross Domestic Product/inhabitant for Romania for the period 2000-2012

Year	GDP/Inhabitant- nominal	GDP/Inhabitant (Real)	Fix index	Chain Index
An 2000	3.582,60	3.582,60		
An 2001	5.210,90	3.786,81	105,70	105,70
An 2002	6.950,10	4.098,49	114,40	108,23
An 2003	9.090,30	4.324,20	120,70	105,51
An 2004	11.413,50	4.703,95	131,30	108,78
An 2005	13.362,80	4.911,74	137,10	104,42
An 2006	15.967,60	5.309,41	148,20	108,10
An 2007	19.315,40	5.655,85	157,87	106,52
An 2008	23.934,60	6.082,18	169,77	107,54
An 2009	23.341,40	5.692,75	158,90	93,60
An 2010	24.435,90	5.635,79	157,31	99,00
An 2011	26.070,00	5.776,58	161,24	102,50
An 2012	29.197,40	5.822,80	162,53	100,80

Source: National Institute of Statistics, Directory 2006-2012

The bigger the value of this indicator is, the higher the welfare of the individuals for which this indicator is calculated is.

For Romania, as it can be observed in the Chart 1.3: Gross Domestic Product/inhabitant for Romania for the period 2000-2012 and in the Chart 1.1: Gross Domestic Product/inhabitant, in the interval (2000-2012), this indicator registered an oscillating

evolution. Thus, between 2000-2008 it was registered an increase to 169,77%, the most significant for this period. After 2008, in 2009 and 2010 we can notice a decrease of 6,40% in 2009 compared to 2008 and of 1% in 2010 compared to 2009. After 2010 we can notice a minor increase. Therefore, in 2011 the increase is of 1,250% compared to 2010, and in 2012 the increase is of 0,80% compared to the previous year.

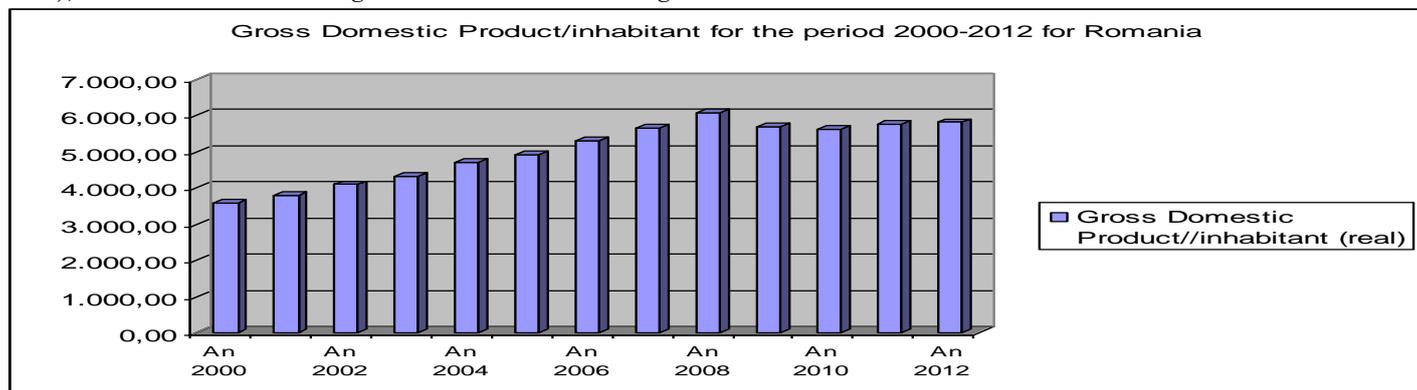


Fig. 2: Gross Domestic Product/inhabitant for Romania for the period 2000-2012

The aspects regarding people, from the perspective of the limited resources, can be caught with some indicators that reflect the natural movement of the population (the number of newborns and deceased).

These indicators should be observed from the perspective of the circular economy. For Romania, the number of newborns, deceases and marriages of the Romanian population, registered for the period 2000-2012, according to the data published by the National Institute of Statistics, is as follows:

Table 2: Number of newborns, deceases and marriages of the Romanian population for 2000-2020.

Years	Events regarding:			Indicator with fix basis			Indicators with chain basis		
	Born alive infants	Deceases	Marriages	Born alive infants	Deceases	Marriages	Born alive infants	Deceases	Marriages
Year 2000	234.521	255.820	135.808	100	100	100	100	100	100
Year 2001	220.368	259.603	129.930	93,97	101,48	95,67	93,97	101,48	95,67
Year 2002	210.529	269.666	129.018	89,77	105,41	95,00	95,54	103,88	99,30
Year 2003	212.459	266.575	133.953	90,59	104,20	98,63	100,92	98,85	103,83
Year 2004	216.261	258.890	143.304	92,21	101,20	105,52	101,79	97,12	106,98
Year 2005	221.020	262.101	141.832	94,24	102,46	104,44	102,20	101,24	98,97
Year 2006	219.483	258.094	146.637	93,59	100,89	107,97	99,30	98,47	103,39
Year 2007	214.728	251.965	189.240	91,56	98,49	139,34	97,83	97,63	129,05
Year 2008	221.900	253.202	149.439	94,62	98,98	110,04	103,34	100,49	78,97
Year 2009	222.388	257.213	134.275	94,83	100,54	98,87	100,22	101,58	89,85
Year 2010	212.199	259.723	115.778	90,48	101,53	85,25	95,42	100,98	86,22
Year 2011	196.242	251.439	105.599	83,68	98,29	77,76	92,48	96,81	91,21
Year 2012	180.714	253.716	107.760	77,06	99,18	79,35	92,09	100,91	102,05
Year 2013	194.363	267.673	121.393	82,88	104,63	89,39	107,55	105,50	112,65
Year 2014	190.458	267.170	118.760	81,21	104,44	87,45	97,99	99,81	97,83
Year 2015	186.554	266.667	116.127	79,55	104,24	85,51	97,95	99,81	97,78
Year 2016	182.650	266.164	113.494	77,88	104,04	83,57	97,91	99,81	97,73
Year 2017	178.745	265.661	110.861	76,22	103,85	81,63	97,86	99,81	97,68
Year 2018	174.841	265.158	108.228	74,55	103,65	79,69	97,82	99,81	97,62
Year 2019	170.936	264.655	105.595	72,89	103,45	77,75	97,77	99,81	97,57
Year 2020	167.032	264.152	102.962	71,22	103,26	75,81	97,72	99,81	97,51

Source: National Institute of Statistics, Directory 2006-2012

Both the Chart 1.3.: Number of newborns, deceases and marriages of the Romanian population for 2000-2020 and the Chart 1.2.: The variance of number of born children, deceases and marriages of the Romanian population during 2000-2012 it can be noticed [8]:

1. a considerable decrease of the number of born children, respectively by 53.807 children, meaning approximately by 23% in 2012 compared to 2000. This negative trend will be accentuated and, in 2020, a decrease of almost 0,29% compared to 2000 will be reached;

2. a considerable decrease of the number of marriages, respectively by 28.048 events, meaning approximately by 21% in 2012 compared to 2000. This negative trend will be accentuated and, in 2020, a decrease of almost 25% compared to 2000 will be reached;

3. a decrease of the number of deceases, respectively by 2.104 persons, meaning a decrease of 1% in 2012 compared to 2000. This trend will oscillate and in 2020 it is estimated an increase of the deceases by approximately 3% compared to 2000.

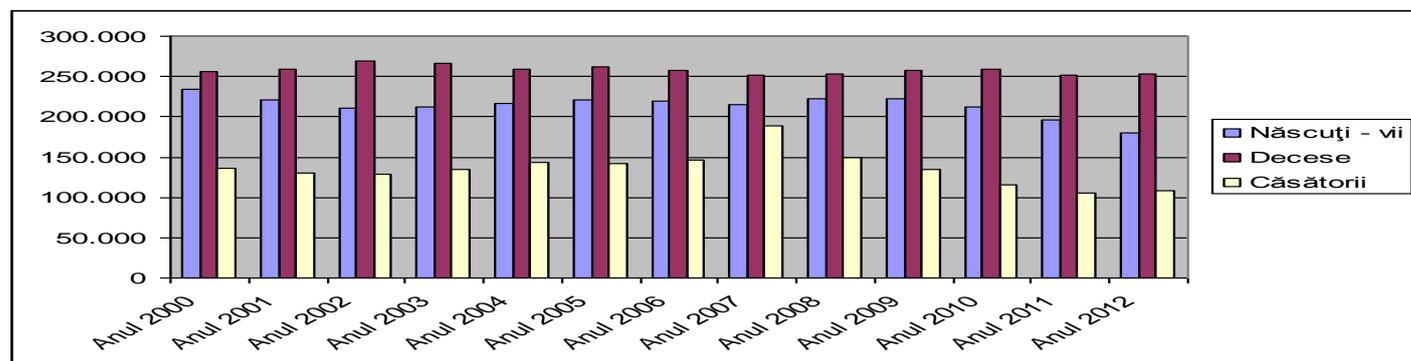


Fig. 3: The variance of number of born children, deceases and marriages of the Romanian population during 2000-2012.

(Source: NISINS, adaptation by the author)

Regarding the aspects analyzed and observed in the previous chart about the number of newborns, deceases and marriages and presented by the series of data from the Chart 1.3, we can draw the conclusion that in the future there will be registered certain tendencies that presuppose the decrease and ageing of the Romanian population.

In other words, these aspects reflect certain principles of the circular economy, but, at the same time, being aware about the fact that there are certain limits regarding the resources, including the human ones will involve new preoccupations regarding the human's behavior and the global human-sustainable development.

It is very easy to quantify the economic progress if we take into consideration only economic indicators, but through such measurements there are lost from sight certain costs and debts that society has towards the natural environment [6].

Next to the Index of Sustainable Economic Welfare (ISEW) and the Index of Economic Freedom (IEF), the Human Development Index (HDI) has the capacity of measuring both the economic development and the aspects regarding the human development and the environment. Through its values, HDI expresses the human and economic progress, but it doesn't

send information regarding the costs society has for the environment.

The values of the *Human Development Index* are calculated taking into consideration four indicators: life expectancy at birth, the average education period, the estimated education period, the gross income per inhabitant. Observing the classification from the chart presented previously, in the 28 countries of the European Union, Romania occupies the 25th position.

The principles of the economic freedom that fed the society's progress are measured by the Index of Economic Freedom and have at the basis 10 freedoms grouped as it follows [20]:

- Rules of right (the property right, the freedom from corruption);
- Governmental dimension (fiscal freedom, governmental expenses);
- Regulations regarding the efficiency (the business freedom, the labor freedom, the monetary freedom);
- Free market (the trade freedom, the investments freedom, the financial freedom).

For the countries of the European Union, the two indicators present as follows:

Table 3: The countries of the European Union - The Human Development Index and the Index of Economic Freedom

No.	EU countries	HDI			IEF
		2010	2011	2012	
1	Austria	0,883	0,885	0,895	72,4
2	Belgium	0,885	0,886	0,897	69,9
3	Bulgaria	0,768	0,771	0,782	65,7
4	Czech Republic	0,863	0,865	0,873	72,2
5	Cyprus	0,839	0,84	0,848	67,6
6	Croatia	0,794	0,796	0,805	60,4
7	Denmark	0,893	0,895	0,901	76,1
8	Estonia	0,832	0,835	0,846	75,9
9	Finland	0,88	0,882	0,892	73,4
10	France	0,883	0,884	0,893	63,5
11	Germany	0,903	0,905	0,92	73,4
12	Greece	0,862	0,861	0,86	55,7
13	Ireland	0,907	0,908	0,916	76,2
14	Italy	0,873	0,874	0,881	60,9
15	Latvia	0,802	0,805	0,814	68,7
16	Lithuania	0,805	0,81	0,818	73
17	Luxembourg	0,865	0,867	0,875	74,2
18	Malta	0,83	0,832	0,847	66,4
19	Great Britain	0,862	0,863	0,875	74,9
20	Holland	0,909	0,91	0,921	74,2

21	Poland	0,811	0,813	0,821	67
22	Portugal	0,808	0,809	0,816	63,5
23	Romania	0,779	0,781	0,786	65,5
24	Slovakia	0,832	0,834	0,84	66,4
25	Slovenia	0,882	0,884	0,892	62,7
26	Spain	0,876	0,878	0,885	67,2
27	Sweden	0,901	0,903	0,916	73,1
28	Hungary	0,814	0,816	0,831	67

Source: <http://www.undp.org/content/undp/en/home/librarypage/hdr/human-development-report-2013/>, visited on 10.03.2014, h: 01:07,
http://www.undp.org/content/undp/fr/home/librarypage/hdr/human_developmentreport2011/, visited on 11.03.2014, h: 01:10,
<http://www.heritage.org/index/ranking> visited on 02.04.2014, h: 10.08, adaptation by the author;

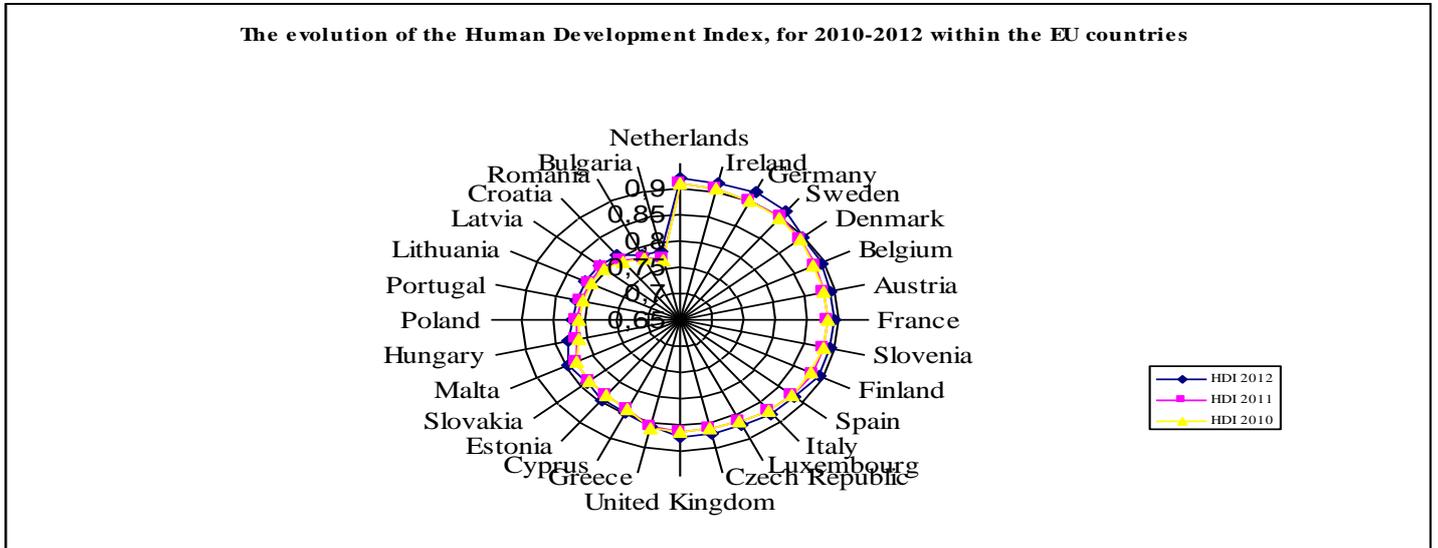


Fig. 4: The evolution of the Human Development Index, for 2010-2012 within the EU countries
 (Source: adaptation by the author)

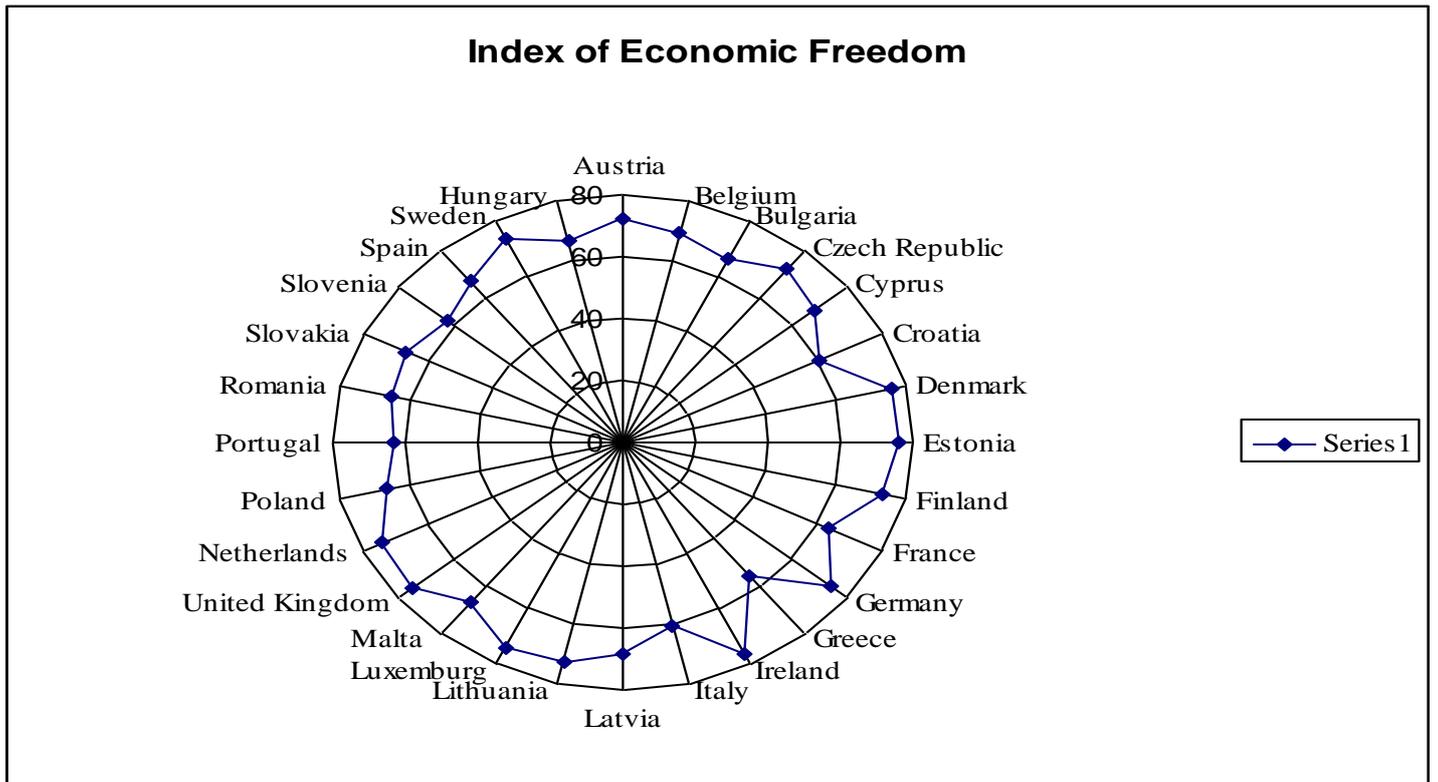


Fig. 5: Index of economic freedom
 (Source: adaptation by the author)

By studying the previous charts and also the chart 1.4: The countries of the European Union - The Human Development Index and the Index of Economic Freedom, it can be noticed that

Romania, during 2010-2012 registered an increase of the Human Development Index's value. In European context, Romania is in the inferior part of the classification on the HDI classification (ranking 27) and on the IEF

ranking (position 23). We can't say the same thing about the worldwide context of the analyzed countries. Therefore, with respect to the HDI for 2012, Romania occupies the 56th position from a number of 186 countries analyzed, while with respect to the IEF it ranks on the position 62 from a number of 182 analyzed countries.

Conclusion

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