

## REDUCING GREENHOUSE GAS EMISSIONS AND THE INFLUENCES ON ECONOMIC DEVELOPMENT

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### **Abstract**

*In the recent years, there has been observed a degradation of the environment. This has negative effects on human activities. Besides the influence of the environment on people, also the economic crisis had a negative contribution. The imbalances manifested in the environment influence the economic systems. This article presents an analysis of the greenhouse gas emissions. Also, there is a link between the greenhouse gas emissions and the economic development. In the situation in which the environmental pollution is increasingly affecting humanity, the transition to an economy with reduced greenhouse gas emissions appears to be a viable solution. This transition provides a number of opportunities, as well. Therefore, one of these opportunities is the one related to the employment. In this regard, retraining people working in polluting industries is very important.*

**Keywords:** *emissions of greenhouse gases, economic activities, renewable sources, enterprise,*

**Clasificare JEL:** *Q52, O14, P42*

### **1. Introduction**

The transition to an economy based on low emissions of greenhouse offers a number of opportunities. One of the most important issues relating to economy with low emissions of greenhouse lies in economic opportunities. Other opportunities are the social and environmental. I believe that the most important opportunity to transition to low carbon economy Greenhouse gas is the one that envisages employment.

One of the causes of the greenhouse gas emissions of greenhouse is the climate change. Thus, developing approaches on climate change and future communities must take into account the role of local and regional authorities. Supporting and encouraging local and regional authorities can be achieved through the use of development and financing schemes that address issues of climate and energy. In this respect, it is desired that climate change should not affect average temperatures rise by more than two degrees compared to pre-industrial levels.

One of the EU's objectives is to reduce emissions of greenhouse gases by 2030. Thus, it is desirable that in 2030 the percentage of gas emissions greenhouse represent about 50% of the level registered in 1990. However, it should be as energy markets evolve in such a way as to facilitate a transition to a low carbon economy greenhouse gas emissions.

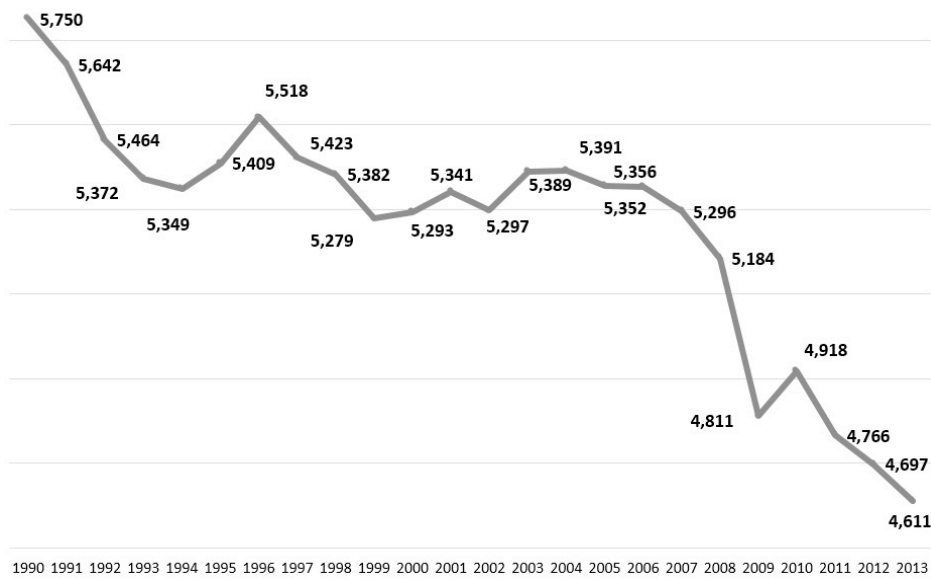
At the same time, solutions can be applied to increase the absorption natural gas emissions greenhouse. The decrease in the perimeter area led to felling forests in order to use wood or expansion of agricultural land [1]. For example, when referring to carbon emissions, can be considered the promotion of forestry and farming effective ways that can be used.

### **2. Greenhouse gas emissions**

Reducing emissions of greenhouse gases can be achieved by adopting appropriate behavior by residents and businesses. At EU level have been proposed emission reduction targets by 2020. At the same time, Member States have adopted new policies regarding energy. Thus, energy consumption decreased and there is a shift towards the use of energy from renewable sources. However, given the negative aspects related to the economic crisis manifested in the first decade of the second millennium, but also due to structural changes in the industry, reducing consumption and emissions have acted to the detriment of employment. In these circumstances, measures are needed to increase public confidence in the reduction of gas emissions greenhouse. Some of these measures may also address energy efficiency and use of energy from renewable sources. Implementation of the measures may differ depending on the economy of each Member State, the dominant structure emission of measures already taken, and specific environmental conditions. Every EU member state there are different conditions for the use of renewable energy sources. These specific conditions into consideration existing factors, such as raw materials, natural environment, production systems and power transmission.

A large contribution to global warming have CO2 emissions. They represent approximately 80% of total greenhouse gas emissions in the EU greenhouse. These emissions are influenced by several factors: the climatic conditions, economic growth, demography, transport and industrial activities.

Figure 1. Greenhouse gas emissions in (million tonnes of CO2 equivalent)



Source: conducted by the author based on data available on EUROSTAT website

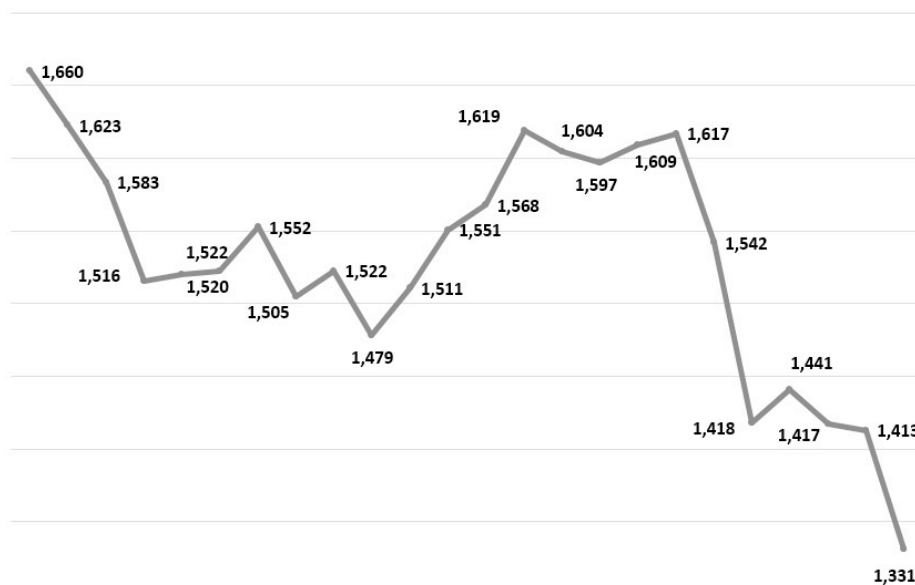
For 2013, it is observed a decrease with 20% from the 1990 values.

Values vary from country to country. Thus, EU countries for which emissions have increased: Ireland, Greece, Spain, Austria, Portugal, Cyprus and Malta. Of these, emissions in the last two mentioned countries increased by almost 50% in 2013 compared to 1990. However, the values recorded for Cyprus and Malta which positions them on the last in the EU by 9 million tonnes of CO2 equivalent or 3 million tonnes of CO2 equivalent.

There were also decreases in the levels. Among these countries, the emission reductions in 2013 compared to 1990 was recorded in: Lithuania, Latvia and Romania. In these countries, values in 2013 are below 50% of the values they had in 1990.

Also for 2013, the highest values (in million tonnes of CO2 equivalent) recorded in: Germany (976), United Kingdom (604), France (506), Italy (447) and Poland (396). In Romania, in 2013, values were 111. In the EC, of all sectors, energy industries sector was showing the highest annual values. For this sector, the change is shown below:

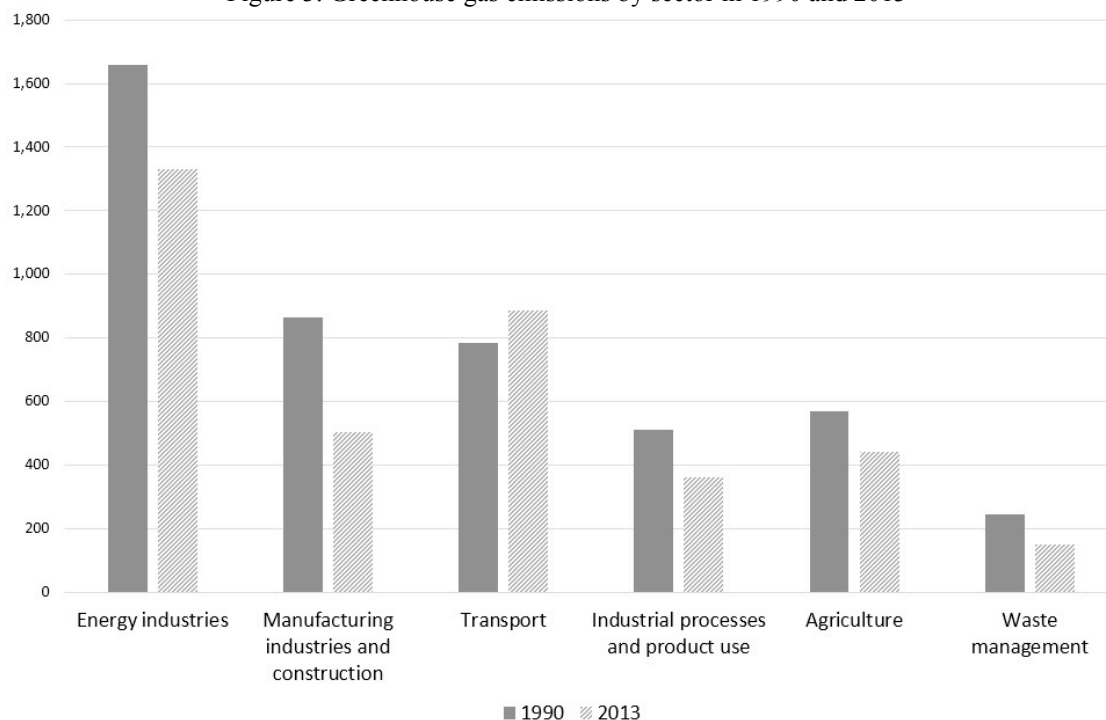
Figure 2. Variation in greenhouse gas emissions in Energy industries (million tonnes of CO2 equivalent)



Source: conducted by the author based on data available on EUROSTAT website

Values gas emissions for sectors, in comparison for 1990 and 2013, are presented below:

Figure 3. Greenhouse gas emissions by sector in 1990 and 2013



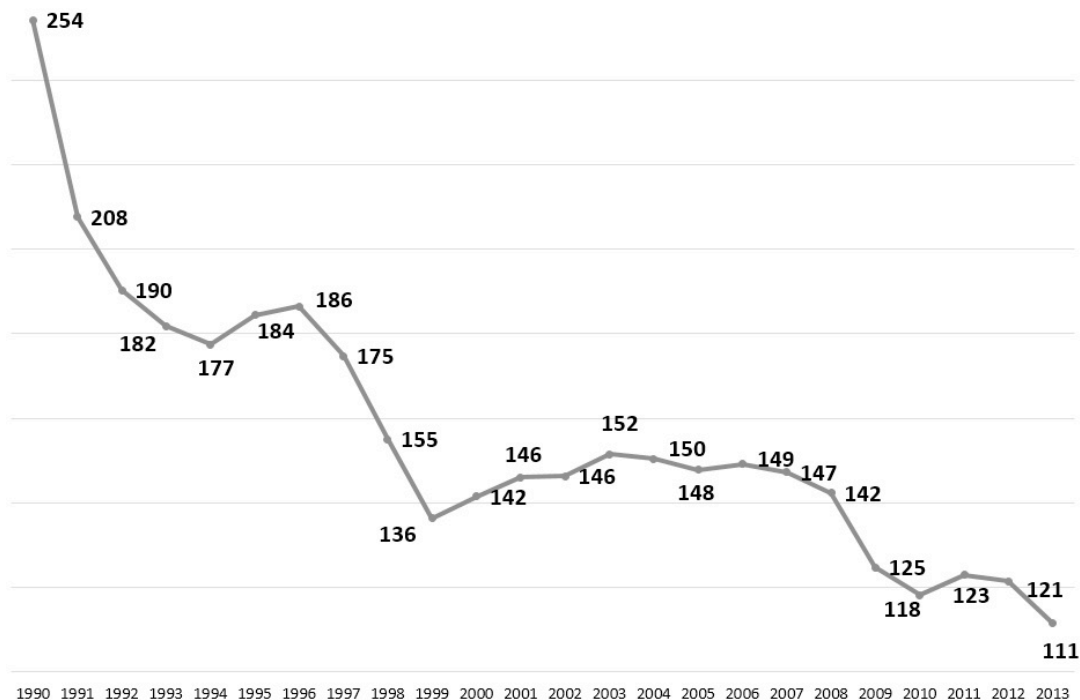
Source: conducted by the author based on data available on EUROSTAT website

There is a decrease in emissions for most sectors. The only sector which in 2013 compared to 1990, recorded increases in emissions is the transport sector. Also, the biggest decreases were recorded for manufacturing industries and waste management, for which values were recorded nearly 60% of those in 1990.

It is expected that Member States should exploit the opportunities of the transition to a low-carbon economy can offer for the innovation and modernisation of European industry and boosting employment [2].

For Romania, the comparative situation, for the period 1990-2013, is as follows:

Figure 4. Greenhouse Gas Emissions comparative situation, for the period 1990-2013



Source: conducted by the author based on data available on EUROSTAT website

In 2013, a decrease about 44% of the amount taken in 1990. For Romania in 2013 compared with 1990, increases were recorded for two sectors: transport and waste management. For other sectors, values nearly halved. For the manufacturing industries sector, the figures for 2013 is less than a quarter of the 1990 values.

Reduction of gas emissions greenhouse can help improve public health and the state of the environment by reducing local air pollution and creating jobs.

### 3. Economic development

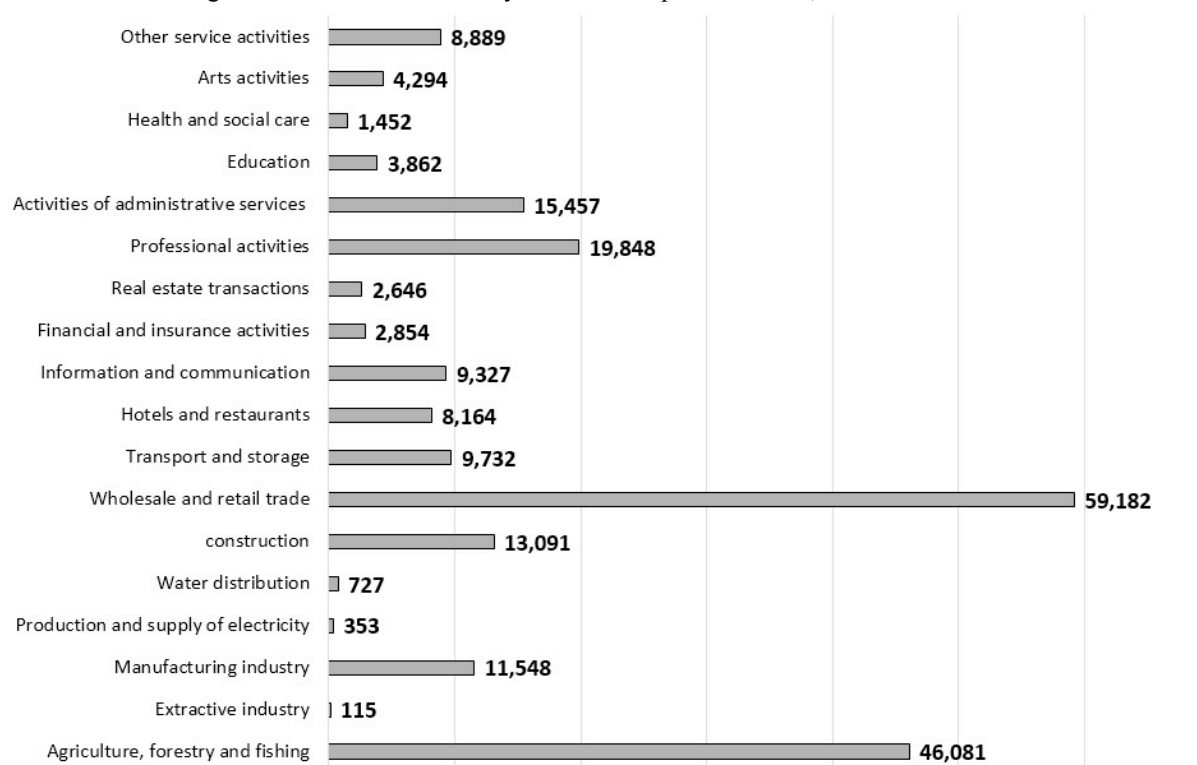
Inclusive economic growth and a stable market, together with improved welfare and employment and smart economic liberalisation, must play a key role in the development of transition societies [3].

To initiate and grow a business, it takes an entrepreneurial spirit. Applying an entrepreneurial management lead to setting up a business. It can be considered that the undertaking is the most important component of the economy. The purpose of the activities of an enterprise is the profit motive.

In human evolution, recent years have represented a technical breakthrough. Have been patented new inventions and innovations have made the transition to a market economy, private property, there have been demographic changes. These changes have led to the initiation of new business and develop existing ones.

Thus, in 2013, per total national economic activities, 217.622 businesses have been set up with an average number of 282.626 employees. The distribution of newly created enterprises in 2013 for national economic activities is shown in Figure 5.

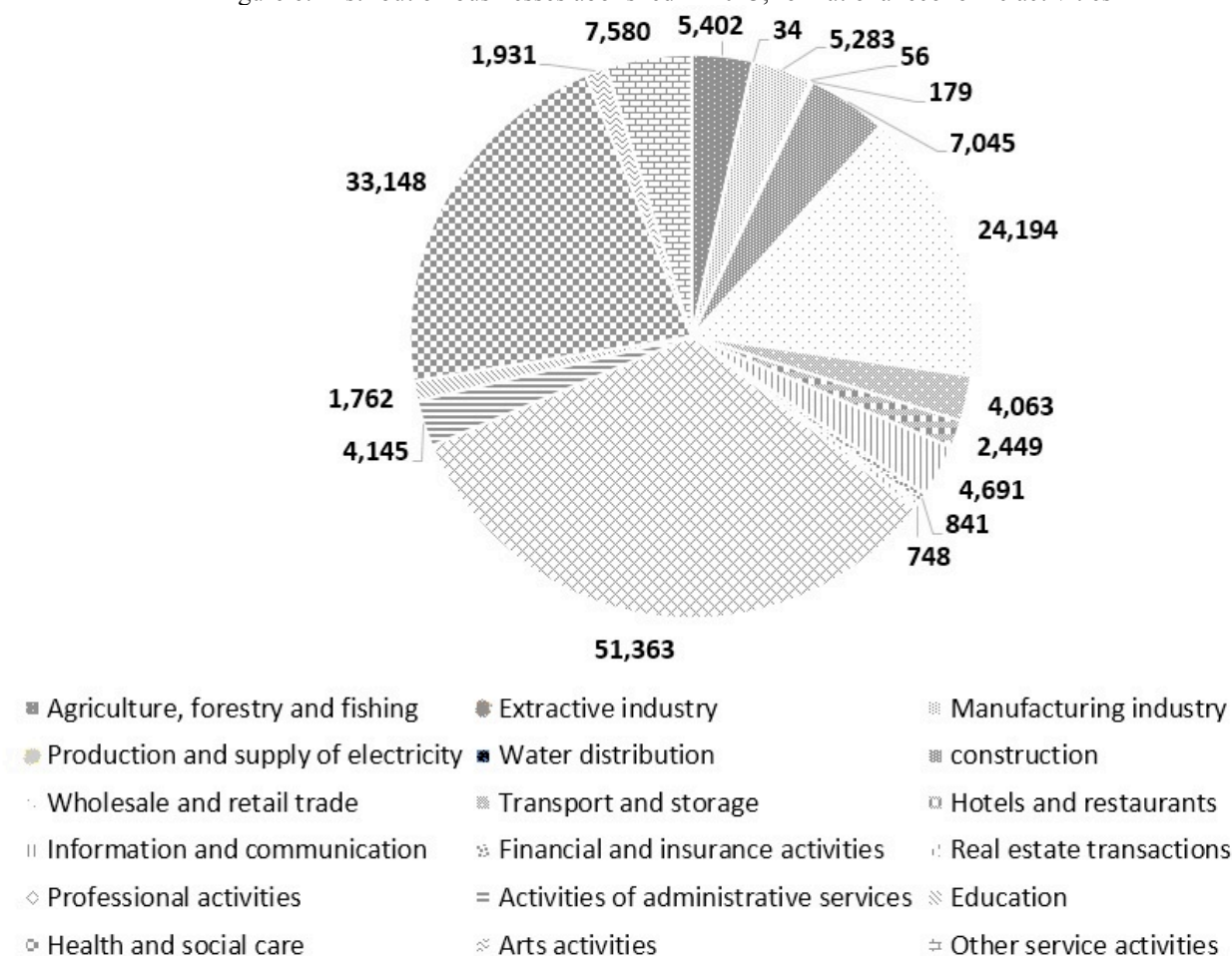
Figure 5. Distribution of newly created enterprises in 2013, for national economic activities



Source: conducted by the author based on data available on National Institute of Statistics website

It observes that national economic activities for which there was a greater interest for setting up businesses were wholesale and retail trade; agriculture, forestry and fishing; professional activities. Distribution businesses abolished on national economic activity in 2013 is shown in Figure 6.

Figure 6. Distribution businesses abolished in 2013, for national economic activities



Source: conducted by the author based on data available on National Institute of Statistics website

Most businesses closed down in 2013, were the following activities of the national economy: professional activities; Health and Social Care; wholesale and retail trade.

Wholesale and retail trade sector is observed that the number is double the number of established businesses abolished. The professional activities of enterprises number of deaths exceeds the established enterprises. Instead, there is a big difference between the number of deaths and the number of enterprises established businesses for Health and Social Care sector.

Many technological changes and the development of science led to the development of the labor market. Thus, better use of human potential requires new methods.

#### 4. Conclusions

It was found that transport is a sector in which emissions of greenhouse increased. The European Parliament have adopted Directive 2014/94 / EU on the deployment of alternative fuels infrastructure. Implementation of the directive involves stimulating energy efficiency and introducing alternative propulsion systems. Thus, it creates conditions for a wide range of fuels for road transport to become available. In these circumstances, local and regional authorities have the necessary levers to use fuels with low emission public transport.

The economic crisis has had a negative impact on the pace of clean energy deployment and on carbon markets. It is estimated that global energy-related greenhouse gas emissions in 2020 are projected to be nearly 4 Gt CO<sub>2</sub>-equivalent higher than a level consistent with attaining the 2°C target. Four basic and achievable policies set out in the report are: improving energy efficiency in buildings, industry and transport; cutting construction and use of least-efficient coal plants; minimising methane emissions from oil and natural gas production and accelerating phase-out of some fossil-fuel consumption subsidies [4].

Another important consideration is given to sustainable regional planning. Quality of life is very important community members. Thus, measures relating to urbanization territories can contribute to the revaluation of the use of public transport through the use of low-emission fuels or alternative propulsion systems.

Given the mobility of labor and based on changes related to emissions of greenhouse, new tools are needed transparency and recognition of competences and qualifications. Thus, people with multiple skills have the ability to handle the job safer and better paid. For them, the emergence of new technologies, skills upgrading is done much easier. In this way, employees update their skills or acquire new skills facilitate business development organization in which they work. Also, they are able to develop their own businesses. In this way, they go from being a worker in a position to organize their own business alone.

## **6. Bibliography**

- [1] **Ildiko, I., Bran, F., Rădulescu, C.V.**, Dimensiunea managerială a conservării naturii, Editura Universitară, București, 2009;
- [2] Opinion of the Section for Agriculture, Rural Development and the Environment on the Market-based instruments towards a resource efficient and low carbon economy in the EU (2014);
- [3] Opinion of the European Economic and Social Committee on Sustainable change in transition societies (2014);
- [4] Opinion of the European Economic and Social Committee on the Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions on the 2015 International Climate Change Agreement: Shaping international climate policy beyond 2020 (2014)