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CONCEPT OF "GLOBAL WARMING" AND INFLUENCE "GREEN CITY" ON IT

Gheorghe Bratucu¹, D.D. P unescu¹

¹Transilvania University of Braşov, Braşov, ROMANIA, gh.bratucu@unitbv.ro

***Abstract:** This paper provides a complex research on the emergence and evolution and the concept of global warming, how to involve various organizations and personalities in public awareness about the dangers of this the future of mankind, and to promote concrete solutions mitigation of its effects on the medium and long term. Especially considering promoting green city concept, both in traditional form and especially by building green roofs and greenhouses located on the roofs of buildings in large urban areas.*

***Keywords:** global warming, green roofs, greenhouses on rooftops*

1. INTRODUCTION

Among the motivations to develop extraordinary human civilization in recent centuries it is included relative stability and predictability of the global climate, which allowed an adequate adaptation of flora and fauna, with positive consequences for growth and diversification of food and raw materials resources necessary needs a population more numerous. This led to the neglect of negative effects of this development and when their manifestations became apparent it was found that their removal is extremely difficult or even too late for some species of plants and animals. Through mobilization, initially quite shy and more vigorous in the current period, humanity propose and implement solutions that try to eliminate the negative effects of this phenomenon and to leave future generations a planet as healthy. Of the many ways to reduce the effects of global warming, this paper insists on the concept of green city, which is promoted in several variants in large urban areas in most developed countries economically and socially.

2. MATERIALS AND METHOD

2.1. Issues on the emergence and evolution of the concept of 'global warming'

Global warming is defined as "to the increase in average temperature of the atmosphere around the ground and oceans" [23]. Global warming began to worry after 60s, following massive industrial development and increasing gas concentration greenhouse, which are considered largely responsible for climate change increasingly apparent

Global warming is the defining aspect of climate change and other phenomena manifested concern, such as: increased frequency and intensity of hurricanes or tornadoes; alternation in short periods of increasing temperatures beaches very high; The sudden transition from summer to winter or from winter to summer, with reduced sometimes to the verge of extinction seasons of autumn and spring etc.

The concept of global warming was formed and crystallized as a concept within a broader concept that sustainable development emerged in the mid twentieth century, joined quickly a lot of governmental and nongovernmental organizations and personalities of environmental scientific, cultural, economic and social worldwide. In the concept of sustainable development it should be noted that it covers all forms and methods of socio-economic development which focuses primarily on ensuring a balance between social, economic and ecological elements of natural capital [24]. Sustainable development aims and trying to find a stable framework for decisions in any situation in which it finds a man to the type - medium, whether environmental, economic or

social environment. Sustainable development was originally meant to be a solution to the ecological crisis caused by intense industrial exploitation of resources and the continuous degradation of the environment and seek, primarily, preserving environmental quality. Currently concept was expanded on quality of life in its complexity, and economically and socially. It is now the object of sustainable development and concern for justice and equity between countries, not only between generations. The concept was originally linked to the crisis of climate change and natural resources, especially energy, now 30-40 years. The term itself is very young and has established itself in the summer of 1992, after the Conference on Environment and Development, organized by the United Nations in Rio de Janeiro [8]. Sustainability starts from the idea that human activities are dependent on the environment and resources. Health, safety, social and economic stability of society are essential in defining the quality of life. Discussions that was finally decided on sustainable development started in the early 70s. In 1972, the Conference on Environment, [7] which was held in Stockholm, placed first serious questions about the environmental damage caused by human activity, jeopardizing the very future of mankind. In 1983, begins work World Commission on Environment and Development (WCED), headed by Gro Brundtland, following a resolution adopted by the United Nations General Assembly [8].

Two years later, in 1985, it found the hole in the ozone layer over Antarctica and the Vienna Convention [3] trying to find solutions for reducing the use of substances that harm the protective ozone layer that surrounds the planet. In 1986, a year after the Chernobyl catastrophe occurs so-called Brundtland Report, the WCED, entitled "Our Common Future" [6], which gives the most cited definition of sustainable development or sustainable ("sustainable development) «sustainable development is aimed needs of the present without compromising the ability of future generations to meet their needs» . Also, Brundtland report admitted that economic development can not be stopped, but that strategies need to be changed so that it matches with ecological limits offered by the environment and the planet's resources. In the final report, the commission argued the need for an international conference on sustainable development. As a result of this approach, in 1992, he held in Rio de Janeiro "Earth Summit" attended by representatives of about 170 countries. After the meeting, they were adopted several conventions relating to climate change (reduction of methane and carbon dioxide), biological diversity (conservation) and stop the massive deforestation. It was also established to support a sustainable development plan, called Agenda 21. At 10 years after the Rio Conference in 2002, held in Johannesburg Summit on Sustainable Development [17] During this period in the concept sustainable development have crystallized several directions, the climate change or global warming is so important that it became, in turn, a universal concept. On 4 February 1991, the European Council authorized the Commission to participate on behalf of the European Community negotiations on the Framework Convention on Climate Change United Nations, then adopted in New York on 9 May 1992. The Framework Convention has been ratified by the Community European Commission Decision 94/69 / EC of 15 December 1993. It entered into force on 21 March 1994.

Of great importance in developing the concept of global warming is the Kyoto Protocol, an international agreement on environment, succeeding Framework Convention on Climate Change United Nations. It was negotiated in December 1997 by 160 countries [25] . The agreement provide for industrialized countries to reduce harmful emissions by 5.2% in 2008-2012 compared to 1990. To enter into force It had to be ratified by at least 55 nations, which produce 55% of global emissions of carbon dioxide. That condition was met in October 2004 by the Protocol ratification by Russia respectively. After the conference in Marrakech in November 2001, the Seventh Conference of the Parties, 40 countries have ratified the Kyoto oranges. It should also be retained European Council Decision 2002/358 / EC of 25 April 2002 on the approval, on behalf of the European Community of the Kyoto Protocol to the Convention Framework of the United Nations on Climate Change and the joint fulfillment of commitments there under thereof.

In October 2004, Russia, responsible for 17.4% of greenhouse gas emissions, ratified the agreement, which led to meeting the quorum required for the entry into force of the Protocol. In November 2004 the number of participating countries were 127 including Canada, China, India, Japan, New Zealand, Russia, the 25 members of the European Union together with Romania and Bulgaria and Moldova. Among countries that have not ratified the protocol and the United States is responsible for more than 40% of total greenhouse gas emissions (announcement in March 2001).

In December 2015 in Paris 195 countries have adopted the first universal agreement voluntary, but which contain coercive aspects in the fight against global warming [26] .The agreement covers both a transformation in the coming decades, the world economy based on fossil fuels and global warming termination rate [Reuters]. French Foreign Minister Laurent Fabius, President of COP 21 in Paris, marked the announcement with a hammer in desk, signaling the reaching of an agreement between 195 nations, after 13 days of negotiations. The document provides for limiting the global average temperature increase to less than two degrees Celsius [BBC]. This is the first agreement that obliges all countries to commit to reducing carbon emissions. Previously, key groups such as the G77, a group of developing countries, but also countries such as China and India announced that they support the proposals. Of great importance was the active participation in this conference the US and Russia, along with

block European Union countries. Text adopted accepts that the danger of climate change is more important than was previously recognized and committed signatories to reduce emissions. French President Francois Holland described the text as "unprecedented" and UN Secretary General Ban Ki-moon urged negotiators him to "end task". "Developed countries must take extra responsibility because it pollutes for a long time, and other states must not deprive them the right to develop", said Prime Minister of India. Barack Obama, US president, said in turn: "No nation, big or small, rich or poor, is immune. It lies in our power to change the situation here and now. We are the first generation that feels the impact of climate change and the last generation that can do something to fix things. "In the same context, Prince Charles of Great Britain has sent an encouraging message:" Rarely in the history of humanity, so many people throughout globe and put their hope in so few decisions. Your deliberations in the next 2 weeks will decide the fate not just those living on earth today, but generations unborn. Therefore I urge you to think about the grandchildren, as I think of my parents and the billions of people whose voice is not heard "[13].

The event in Paris, codenamed COP 21 was the largest conference dedicated to climate, the highest concentration of world leaders and the largest diplomatic gathering ever held in France [9]. The success of the meeting is to adopt a text of agreement applicable since 2020 to engage the entire international community to drop by 70% reduction in GHG. emissions by 2050 and to achieve reaching a peak of such emissions as soon as possible but also a balance between sources and sinks of greenhouse gases in the second half of this century. In addition to keeping global warming below 2 degrees Celsius and a continuation of efforts to limit it to 1.5 degrees Celsius, it was proposed to analyze and review progress every five years. Of great importance is the financing proposal with environmental funds worth 100 billion dollars a year to developing countries by 2020, and a commitment to continue funding in the future.

A failure of the agreement is not yet ruled out as not all participating countries accept the legal form of the final text. White House rejects binding version of the treaty, whose adoption in Congress would be impossible.

In recent decades, the concept of global warming has taken on huge proportions in all spheres of the political world, turning into a ideological movement, whose political parties have come to power in some countries, influencing policies of development in all fields contemporary life. Also, the same theme has spawned a vast literature, which argue for and against the concept of global warming and how it is managed, still presenting some titles such works and ideas supported in them .

One of the works that have laid the foundations for ideological protecting and preserving the environment was "Spring Quiet ", published in 1962, in which author Rachel Carson pull a serious warning about the dangers that were to deviate on environment entire Earth [5]. Former US vice president Al Gore, turn a fan of this movement, he declared that "without this book, ideological environmental movement, left behind or not develop at all" .Other work that influenced the ideological environmental movement, was a Club of Rome report, "the limits of Development" [21]. This paper promoted the sharp drop in natural resources due to increased world population and pollution that it causes. These works were very popular in their time, and continue to influence the thinking of many even in the twenty-first century, although some of their predictions proved inaccurate. In turn, Lester R. Brown created in 1974 "World watch Institute" [18] and is the promoter of a series of studies, evidenced by the annual reports on progress towards structuring a sustainable society "state of the world" or "Signs vital. In book "Plan B 2.0" it draws attention to the conflict between industrial civilization and the environment and mentions related issues as: - the trend of depletion of natural energy resources, raw materials and food - consuming renewable resources at a pace their regeneration capacity higher; physical damage and contamination of vital environmental factors such as water, air and soil. Highlights the importance of recycling, showing that "a sustainable society is a society that shapes its economic and social system so that global natural resources and life support systems are maintained". [16].

Valuable ideas and works are found in thousands of scientific debate or citizen, that occur annually throughout the planet on global warming.

A significant moment for the credibility of data on developments in all aspects of climate change is the formation in 1988 of the IPCC (Groupe d'experts de l'évolution du sur intergouvernemental climate), whose reports are highly documented, often leaving readers draw their own conclusions. [15] The IPCC came concerns in recent years and monitoring of ocean water temperatures, reduced ice surfaces polar caps, massive deforestation of equatorial etc. This monitoring is performed by an impressive number of researchers with the highest skill level, using the most contemporary research advanced equipment (satellites, ships equipped for complex oceanic investigations etc.) [11].

Meanwhile formed and crystallized a number of bodies and organizations dedicated to sustainable development and ongoing concerns related to climate change: World Business Council for Sustainable Development; World Commission on Environment and Development; Department of Sustainable Development of the UN [22] etc. In Romania was set up the National Centre for Sustainable Development, which drafted the National Sustainable Development Strategy 2013-2020-2030 and in each county operates one agency for sustainable development

[10]. It highlights the work done by the global organization Greenpeace, which tracks and expose unfair practices of major environmental pollutants, which discharge hazardous waste in areas from surveillance possibilities of organizations promoting sustainable development [14].

2.2. The emergence and development of 'green city' concept

The concept of green city is increasingly circulated in the context of increased greenhouse effect and pollution continued growth over the planet. In a green city can be found features that make urban life healthier, more enjoyable and eco-friendly green surrounding. The cities widely used renewable energies, hosting companies using clean technologies, promotes sustainable living and adopted both environmental regulations and innovative strategies to promote new environmental concerns [1].

Urbanization less controlled achieved in recent decades, especially in countries developing, but also in Eastern Europe and the developing region of the world, made often by infringement of the urban core, such as on the provision of water and green areas, capable of reducing the negative effects that they cause environmental conurbations. All organizations worldwide, continental, regional or state adopted recommendations, guidelines or laws allowing city dwellers to enjoy decent living conditions, in terms of the environment.

In Romania, the Constitution stipulates in Article 35 "right of everyone to a healthy and ecologically balanced environment." In this context, Law no. 24/2007 [12] regarding the regulation and management of green spaces in urban areas states that "The State recognizes the right of every individual to a healthy environment, free access green spaces for recreation in public ownership, the right to contribute to the Lawns at creating alignments of trees and shrubs, in compliance with legal provisions "(art. 6). In the same law, urban green areas are defined as a network mosaic or a system of ecosystems semi, whose characteristics is determined by vegetation (wood, tree, shrub and flower and herbaceous) and includes parks, squares, planted alignments or free land, unproductive plot (art. 6). The most important are parks, thanks surface and facilities available, and the functions they perform. Once the nature of ownership, green spaces can be public (parks, squares, indoor space with dominant plant and areas with spontaneous vegetation falling into the public domain) or private (privately owned green spaces that are not used in the public interest). This law "governing the management of green spaces, public interest objectives, to ensure the quality of the environment and the health of the population" (art. 1) .de great importance are the state agencies must apply the laws relating to insurance legislation or verify and report situations where citizens' rights are violated. Highlighted in this Quality of Life Research Institute and some NGOs with environmental concerns, which bring to public attention many cases incorrect.

In the 319 urban settlements in Romania, where 55.2% of the population lives, due to the trend of permanent expansion of built space, especially in the last two decades has seen, most often, a reduction of green spaces . Thus, if the years 1980-1990 in Romania urban green areas increased from 169.62 to 220.81 km² respectively 30%, after it registered a downward trend until 2006, when it produced a slightly revival reaching 202, 69 km². Because of this situation, it was enough that the average area of urban green space in Romania is today only 18 m² / capita, while in Europe it is frequently 25 m² / capita. Given that Rule the World Health Organization is 50 m² / capita and EU standards are 26 m² / capita, that the population of cities in Romania lacks in many cases, the minimum required for spares (Bucharest has only an average area of 9.67 m² / capita).

The great issues facing most cities of the world, such as increased traffic, air pollution, housing crisis, the accumulation of waste etc. is added and reduced, sometimes dramatic, green spaces by converting them into areas occupied by construction [19]. Tightening green spaces emphasize massive urban environmental risks, having an immediate negative impact on their viability and sustainability, quality of life and health of the population. For decades, increasing population density in urban areas produce a "hunger" growing space. In parallel with the development of territorial tentacular cities, we have changed the structure, architecture and urban design, most often at the expense of green areas. Therefore, lately, many social agents involved in the offensive growth through various means of urban green areas in many countries. It is about the so-called guerrilla green, which is very active and aims to create green spaces as wide and as many, especially in urban areas busiest in Japan, the US, Britain, Germany, Canada, Australia Libya etc. Guerrilla green concept (guerrilla gardening) was launched by Liz Christy Green Guerrilla with his group in 1973 through the initiative to turn into a real garden, a large area of Bowery Houston - New York. The group managed to make a huge unrecognizable wasteland in the city, transforming it into a beautiful garden, on a voluntary basis [20].

The indicators used in assessing urban green spaces are organized into several groups (Practical Evaluation Tools for Urban Sustainability - Green Blue), such as [8]:

- indicators of the availability of green space/blue areas: total surface green/blue, green and share surface water in the city, the area of green space/inhabitant etc. In some cases use more detailed indicators that provide information about form, function types of green space etc .;

- indicators on availability of spaces green/blue or their proximity, measured by the percentage of the population is less than 15 minutes walk from the green areas or in other cases, 150 m from the house;
- quality indicators and maintaining biodiversity habitat fragmentation and isolation of its green space, quality of urban wildlife, measured in number of bird species, threatened species and protected etc.

Probably the first challenge in sustainable development is to make the city to breathe life and not to consume more than she needs. Plants are a element of basis, whether or not inside city boundaries because they are a vital part of the city metabolism. Greening a city can reduce the environmental footprint of its residents, while improving their health. Currently, urban green space is defined varied, depending on "the ways in which influence various aspects of human life and of the urban system as a whole". [2]

Some studies show that the main value of green spaces derives from their ability to restore the "wellbeing" of persons attending them [27]. They provide the urban population quiet places to relax and reduce stress, to escape from the built environment and traffic. The green areas are responsible, therefore, mainly human needs for recreation and leisure.

In parallel with chemical and physical treatment of the atmosphere, vegetation, and performed a bacteriological purification thereof, destroying a large part of microorganisms through the process of evolution of oxygen and ozone, particularly by conifers, and more. Vegetation plays a vital role in moderating climate areas. In cities, buildings and paved surfaces or concrete creates a specific urban environment with higher temperatures and air circulation restriction, which leads to the production of so-called greenhouse "heat island". In contrast to this, the vegetation through shading and increasing humidity helps to create a more comfortable environment. Hence the use of the word "park - the cool island" in contrast to "heat island" Urban [2]. Climatological studies claim that, near the forest, the average air temperature in summer days, is 2-3, 5⁰ C lower than the unplanted free zones in cities, and 12-14⁰C lower than the temperature of asphalt concrete buildings and areas. The rich vegetation contributes to increase RH 7-14% in parks and forests, with beneficial effects on surrounding areas. Another benefit brought by vegetation is the attenuation of noise. A green space, especially compact is true for noise barriers, contributing significantly to reducing their level, during the growing season.

In central and eastern European countries, land restitution to former owners and construction development in recent years, have resulted in the reduction in size of urban green areas by occupying areas under their new construction. In addition, urban green space is subject to a large and permanent pressure coming from potential investors who are interested in this construction. A growing pressure on urban green space is the parking, which became a big problem, especially in countries of Central and Eastern Europe, including Romania. This is mainly a consequence of planning standards applied during the communist regime before 1989.

Romania's urban population can not indefinitely ignore the fact that their cities can be found in numerous places within city limits, different sizes, abandoned (the property in dispute or not known to whom), often acting as a repository for junk. In other countries, in the same spirit, the growth of green areas in cities, there are other examples to follow, even if they seem less radical. In 2008, the city of Tokyo has taken the initiative for planting green curtains of the highest in the world (29 m), the main building occupied by offices downtown. This has reduced the effects of carbon dioxide emissions in the area of energy consumption decreased noticeably during the summer (the air conditioner) and, not least, proved Japan's new green technology. Because of this, in summer the temperature in offices fell by 4 ° C, which resulted in the expansion of this initiative throughout several buildings Japanese. Plants are planted in several small containers with soil and placed on the roofs of buildings are supplied with water by sensor systems that are highly efficient process.

From previous presentation shows that "green city" is more DECA reported the existence of a minimum green area per capita. To this must be added a multitude of issues in urban areas which are more friendly to its residents. Must start from a proper legislation, to be observed by all citizens, to continue with public education in respect for the environment (including enforcement action against the guilty) to solve the problem of cleanliness and management waste, find the right solutions for urban transport, domestic heating etc. Green city represents a significant contribution to reducing global warming process by absorbing or filtering by growing greenhouse gas emissions and reducing the temperature in excess they emit modern city.

European initiatives, North American, Japanese, etc. on "greening" cities are diverse and interesting. Unfortunately the competition in Romania on this issue based solely on some of the larger cities who strive to provide separate collection and waste management, to promote local policies to increase and improve the quality of green areas, to provide speakers conditions as friendly life. Some of these cities, such as Philadelphia-USA have already declared "green cities", thereby trying to mobilize a growing number of citizens in activities for the benefit of the entire community.

3. CONCLUSIONS

1. Global warming (global warming) is defined as "to the increase in average temperature of the atmosphere around the ground and oceans". Global warming began to worry after 60s, following massive industrial development and increasing gas concentration greenhouse, which are considered largely responsible for climate change increasingly apparent.
2. The concept of global warming was formed and crystallized as a concept within a broader concept that sustainable development emerged in the mid twentieth century, quickly joined by a lot of governmental and nongovernmental organizations and personalities scientific outstanding environmental, cultural, economic and social worldwide. Sustainable development covers all forms and methods of socio-economic development which focuses primarily on ensuring a balance between social, economic and ecological elements of natural capital.
3. Trees have a vital role in the balance of nature as they absorb much of the carbon dioxide in the atmosphere. It follows that by reducing forested areas increases the amount of CO₂ in the air. In numbers, it's hard to make a clear estimate, but it is believed that deforestation between 2000-2010 have increased by more than 10% of the CO₂ from the atmosphere. Massive deforestation, especially in tropical areas of South America accelerates this process. The phenomenon is happening in other areas of the planet, and in Romania already is one of the hottest topics of the moment.
6. The concept of green city is increasingly circulated in the context of increased greenhouse effect and the continuous increase of pollution on the planet. In a green city can be found features that make urban life healthier, more enjoyable and eco-friendly green surrounding. Cities widely used renewable energies, hosting companies using clean technologies, promotes sustainable living and adopted both environmental regulations and innovative strategies to promote new environmental concerns

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