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GLOBAL WARMING BETWEEN REALITY, APPROACH AND ACCEPTANCE

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Abstract

Impacts of climate change are already being observed and are expected to become more pronounced. Extreme weather events, including heat waves, droughts and floods are expected to become more frequent and intense. Global warming is a natural phenomenon. It is important that the alarm was pulled and the countries of the world cooperate to maintain environmental quality, given that all the people are the main beneficiary of a healthy environment. Climate change is one of the biggest threats to the environment, social and economic framework. Warming of the climate system is unequivocal. Climate change is the biggest failure and the largest scale yet. Observations show increases in global average temperature of the ocean water and an extensive melting of snow and ice and rising global average sea level. Over the past 150 years, mean temperature has increased by almost 0.8ºC on the Earth and about 1ºC in Europe. In early 2009, the European Commission presented detailed proposals on how to achieve these objectives. They include increasing the amount of money invested in the development of less carbon technologies, especially in developing countries, innovative sources of international finance, international carbon market by 2015 and measures to help countries adapt to changes climate. The European Union welcomed the outcome of the climate change conference held in Doha in 2012, laying the foundation for more ambitious international action against climate change in the short term, opening the way for a new common future on climate change to be completed in 2015 and allowed starting from 1 January 2013, a second commitment period under the Kyoto Protocol. Reference points of the international meeting are those concerning our common future, given that the peoples of the world are the ones who should benefit from the local environment, states and every citizen of planet must only through an awareness of the high intensity effort and will be able to achieve the aim of reducing emissions. 21st Century Europe must have the role of a catalyst so that the force has, through experience and its traditions lead to a convergence of efforts of all countries of the world in the fight against pollution of any kind and in particular the pollution caused by exhaust emissions.

Key words: *climate change, common future, global warming, healthy environment, international carbon market.*

INTRODUCTION

Global warming is at the moment an important problem of too much carbon dioxide (CO_2) in the atmosphere. Connected to all the daily men activities, we can appreciate that warming of the climate system is unequivocal. Climate change is the biggest failure and the largest scale yet. Observations show increases in global average temperature of the ocean water and an extensive melting of snow and ice and rising global average sea level. Over the past 150 years, mean temperature has increased by almost 0.8ºC on the Earth and about 1ºC in Europe.

Over the last century, global average temperature has increased by more than 0.7°C. Substantial scientific evidence indicates the 2001-2010 decade is or could be considered the warmest since 1880—the earliest year for which comprehensive global temperature records were available.

Actually, nine of the warmest years on record have occurred in just the last 10 years. In the same time, this warming has been accompanied by a decrease in very cold days and nights and an increase in extremely hot days and warm nights.

Generally speaking, the evidence indicates that an increase in the global average temperature of more than 2 degrees Celsius above pre-industrial levels poses severe risks to natural systems and to human health and well-being.

MATERIALS AND METHODS

In order to characterize the evolution of global warming, there is statistical evidence that

proves that global warming is causing changes to our planet, and changes that will do more harm than good. Some indicators were used show us the important modifications in period at about 100 years.

The data, collected from ministry of Environment, Environmental Status - Daily reports -Situation report-Hydro meteorological and environmental quality within 1990-2014, European Union environmental legislation, Kyoto Protocol, Doha Amendment to the Kyoto Protocol, Romanian environmental legislation.

RESULTS AND DISCUSSIONS

Global warming is a natural phenomenon. It is important that the alarm was pulled and the countries of the world cooperate to maintain environmental quality, given that all the people are the main beneficiary of a healthy environment. Climate change is one of the biggest threats to the environment, social and economic framework. Warming of the climate system is unequivocal. Climate change is the biggest failure and the largest scale yet.

These climate changes can be considered a fact. There is lots of evidence and many scientists have received a lot of similar results in tests relating to climate change and carbon dioxide. Only very few scientists are against climate change and their tests and theories may not have even been checked thoroughly. But is global warming a normal or abnormal phenomenon?

And the answer is that under the impact of greenhouse effect, the world climate knows major changes, in a fast paced, which are so critical to life on the planet. This phenomenon provided 110 years ago, studied in 1955 and which is subject to its effects management projects since 1975, acquired by global warming, a global dimension.

Even so, humans caused global warming, that means that all humans can also do something for reducing pollution and global warming as well.

To avoid this level of warming, large emitters need to greatly reduce heat-trapping gas emissions by mid century. Delay in taking such action means the prospect of much steeper cuts later if there is any hope of staying below the 2°C temperature goal. Delayed action is also likely to make it more difficult and costly to not only make these reductions, but also address the climate consequences that occur in the meantime.

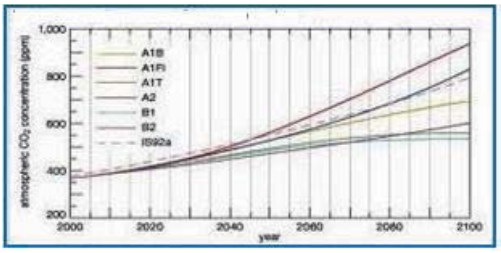

Figure 1. Atmospheric CO_2 emissions

This global warming is a reality. It is confirmed by the consensus of scientific elite world and in the same time, public opinion is becoming more aware and more worried about climate change. Why? Because CO_2 survives in the atmosphere for a long time—few centuries—so its heat-trapping effects are compounded over time. CO_2 puts us at the greatest risk because of irreversible changes and accumulation in the atmosphere.

In fact, there are two different elements that we can associate. One of them is temperature and the other one humidity. When both, temperature and humidity are high, humans can experience considerable heat stress extreme heat may have greater impact on human health. This time we are talking about the combined effects of temperature and humidity which cannot be directly measured but can be assessed by calculation of an "apparent temperature".

On the timescale of centuries to millennia, the magnitude of global warming will be determined primarily by anthropogenic CO_2 emissions.

Stabilizing global average temperature would require reductions in anthropogenic CO_2 emissions. Reductions in emissions of non-CO_2 anthropogenic greenhouse gases (GHGs) (methane and nitrous oxide) would also be necessary. For CO_2, anthropogenic emissions would need to be reduced by more than 80% relative to their peak level. Even if this were to be achieved, global average temperatures

would remain close to their highest level for many centuries.

According to the principle of sustainable development, it is interesting to appreciate that the carbon we put in the atmosphere today will literally determine not only our climate future but that of future generations as well.

Reference points of the international meeting are those concerning our common future, given that the peoples of the world are the ones who should benefit from the local environment, states and every citizen of planet must only through an awareness of the high intensity effort and will be able to achieve the aim of reducing emissions.

21st Century Europe must have the role of a catalyst so that the force has, through experience and its traditions lead to a convergence of efforts of all countries of the world in the fight against pollution of any kind and in particular the pollution caused by exhaust emissions.

Global warming has a lot of causes: carbon dioxide emissions from fossil fuel burning, carbon dioxide emissions from burning gasoline for transportation, methane emissions from animals, agriculture such as rice paddies, and from Arctic sea beds, deforestation, especially tropical forests for wood, pulp, and farmland, increase in usage of chemical fertilizers on croplands.

Because of these different causes, there are a lot of global warming effects: Rise in sea levels worldwide. As the matter of fact, scientists predict an increase in sea levels worldwide due to the melting of two massive ice sheets in Antarctica and Greenland. More killer storms-global warming will significantly increase the intensity of the most extreme storms worldwide. Massive crop failures-generally speaking, there is a 90% chance that 3 billion people worldwide will have to choose between moving their families to milder climes and going hungry due to climate change within 100 years. One of the main causes of this will be the spread of desertification, and all the secondary effects. Widespread extinction of species-by 2050, rising temperatures could lead to the extinction of more than a million species.

Global warming is already having significant and harmful effects on our life. So, we have to take immediate action to address global warming.

That's why 3C members called leaders G8 + 5 countries (Canada, France, Germany, Italy, Japan, Russia, USA, UK, Brazil, China, India, Mexico and South Africa) and national governments around the world to work together to develop policy to combat global climate changes and of course, global warming. In this context, 3C offers the following:

- Reduce Greenhouse Emissions Scientists from the IPCC (Intergovernmental Panel on Climate Change) announces that, to avoid a severe impact on the environment and human, by the end of this century have not recorded a temperature rise of more than 2 degrees Celsius.
- Designation companies and economic markets as leaders transform the economy into one weak issuing greenhouse gas. Methods for reducing greenhouse gases are multiple and accessible to all, without requiring substantial investment. Dynamism and corporate involvement are easier transition to a weak economy issuing greenhouse gas emissions.
- Develop 4 types of policies like strengthen international market transactions carbon emissions. The price for carbon emissions must be set globally and be stable over time, establish some minimum requirements for energy efficient use of resources (here the focus is on transport and construction), accelerate the development of alternative energy technologies.
- Sharing fairly responsibility in the protection of the environment, taking into account the global nature of the problem. Combat Climate Change warns that some climate change is inevitable. In the future, the most affected by the consequences of global warming will be developing countries, which are unable to fight climate change. Therefore, other countries must be willing to accept a fair sharing of efforts.
- Encourage the G8 + 5 to take over the initiative to transform the economy into one weak issuing greenhouse gas G8 + 5, must assume the role of leadership and act as role models in terms of reducing emissions.

• Drafting reports by 3C to help national governments to implement and adapt measures to reduce emissions. Companies 3C promise:

- will share information we hold about their sector to identify measures needed to combat climate warming;
- will be models for other companies in its sectors, in terms of volume decreased emissions;
- will be transparent in their actions and they will refer clients to make the best decisions that comply with the conditions for a sustainable economy.

Thus, between 1910 and 2000 when the average temperature at the Earth's surface has increased by about 0.7°C by 2100 growth will be between 1.4°C and 5.8°C; accepting an average of 4°C (the forecast offered by different scenarios) only within a century there will be a genuine heat shock, the magnitude of warming that ended the last ice age and has radically changed the world map, but its occurrence during some thousands of years!

Meanwhile, if the average level of seas and oceans has increased in the twentieth century, 10-20 cm, a projection until 2100 varies between 20 and 88 cm.

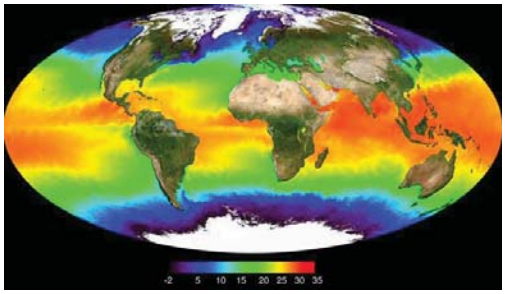

Figure 2. Surface Reflectance and Ocean Temperature by NASA

CONCLUSIONS

We are often talking about global warming.

The planet's temperature is rising and the trend is clear and unmistakable. Every one of the past 37 years has been warmer than the 20th century average. The 12 warmest years on record have all occurred since 1998. The hottest year ever recorded for the contiguous United States occurred in 2012. Globally, the average surface temperature has increased more than one degree Celsius since the late 1800s. Most of that increase has occurred over just the past three decades. So, year 2014 was officially the warmest in history, two separate analyses of NASA and the National Oceanic and Atmospheric Administration determined that temperatures across the globe were, in 2014, the highest level since 1880.

Table 1. Top 10 Warmest Years (1880–2014) - land and ocean annually-averaged temperature rank and anomaly for each of the 10 warmest years on record.

RANK 1 = WARMEST PERIOD OF RECORD: 1880–2014	YEAR	ANOMALY °C	ANOMALY °F
1	2014	0.69	1.24
2 (tie)	2010	0.65	1.17
2 (tie)	2005	0.65	1.17
4	1998	0.63	1.13
5 (tie)	2013	0.62	1.12
5 (tie)	2003	0.62	1.12
7	2002	0.61	1.10
8	2006	0.60	1.08
9 (tie)	2009	0.59	1.06
9 (tie)	2007	0.59	1.06

Temperatures were warmer than average across land surfaces as well. The global land temperature for 2014 was 1.00°C (1.80°F) above the 20th century average, the fourth highest annually-averaged value on record.

Because land surfaces generally have low heat capacity relative to oceans, temperature anomalies can vary greatly between months. In 2014, the average monthly land temperature anomaly rose from +0.31°C (+0.56°F) in February to +1.32°C (+2.38°F) in March, a difference of 1.01°C (1.94°F). These anomalies also represent the lowest and highest monthly anomalies observed during 2014. The ocean has a much higher heat capacity than land and thus anomalies tend to vary less over monthly timescales. During the year, the global monthly ocean temperature anomaly ranged from +0.46°C (+0.83°F; January, February) to +0.66°C (+1.19°F; September), a difference of 0.20°C (0.36°F)

Governments and individuals need to pay close attention to these statistics in order to figure out

ways to reverse the disturbing trends that are now occurring. The sooner we take heed of these statistics and implement changes that address global warming, the quicker we can reverse the disturbing trends and the less damage will occur to our planet.

Climate and warming process are defined as long-term averages and variations in weather measured over a period of several decades. The Earth's climate system includes the land surface, atmosphere, oceans, and ice. Many aspects of the global climate are changing rapidly, and the primary drivers of that change are human in origin. Evidence for changes in the climate system abounds, from the top of the atmosphere to the depths of the oceans.

Many indicators are being developed to provide public and private sector analysts with up-to-date quantitative information on the effect of weather and climate on vital sectors of states economy and society.

Greenhouse gases have a large effect on the environment and have for millions of years. It is nothing new but the green house concentration became dangerous. In certain stages of Earths life mass extinctions have plagued the earth because of imbalances of greenhouse gases in the atmosphere. The greenhouse effect is natural; however it has been proved by scientists that humans have amplified the rate of carbon dioxide being released into the atmosphere.

Recent years have been extremely warm. Some extreme weather and climate events have increased in recent decades, and new and stronger evidence confirms that some of these increases are related to human activities. All the population of the globe induced climate changes which are accelerate significantly if global emissions of heat-trapping gases continue to increase.

It is important to observe and analyse the great impacts related to climate change which are already evident in many sectors of life and are expected to become increasingly disruptive across the nation throughout this century and beyond.

Climate change threatens human health and well-being in many ways, including through more extreme weather events. Water quality and water supply reliability are jeopardized by climate change in a variety of ways that affect ecosystems and livelihoods.

That why the capacity of ecosystems to buffer the impacts of extreme events like fires, floods, and severe storms is being overwhelmed.

This large ecosystem of Earth is now in danger. All the ecosystems and the benefits they provide to society are being affected by climate change. The capacity of ecosystems to buffer the impacts of extreme events like fires, floods, and severe storms is being overwhelmed.

Planning for adaptation and mitigation is becoming more widespread, but current implementation efforts are insufficient to avoid increasingly negative social, environmental, and economic consequences.

Global warming and climate change have been affecting earth for millions of years. That's why global warming and climate change depend on the orbit of the Earth, amount of animal and plant life, volcanic events and more.

In the last 200 years the amount of carbon dioxide ppm (parts per million) in our air has risen from 290 to 385. These graphs as well as other sources show the clear link between global temperature and carbon dioxide.

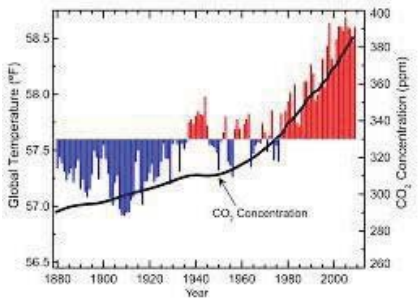

Figure 3. Global temperature and CO_2

The issues of climate change are virtually cyclical. Is true that the human activity affects the increase in temperatures. Developed countries produce large quantities of acidic pollutants.

It is obvious that the Earth is warming. In the past five decades temperature began to change significantly. The last 10 or 15 years were particularly characteristic of each season as temperatures have raised more. This is a finding resulting from data recorded globally and regionally. We must understand that the

Earth is into a multi natural cycle that is not linked to human activity. As a result, the Earth will warm in the next decade. In the very long term, there will be a significant lifting of temperatures around the globe, will be a massive lift water levels seas and oceans. Later will come a new ice age explaining that Earth is cooled by heat. That means that would be possible to install Big Cold.

There has to be no doubt about climate change because global warming is already having significant and harmful effects on our communities, our health, and our climate. We must take immediate action to address global warming or these consequences will continue to intensify. Because global warming is happening now, we have to tackle it together.

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