

## SOME ASPECTS REGARDING THE GLOBAL WARMING

Rusănescu Carmen Otilia<sup>1</sup>, Rusănescu Marin<sup>2</sup>

<sup>1</sup> Polytechnic University of Bucharest, Faculty of Biotechnical Engineering

<sup>2</sup>Valplast Industry Bucharest Romania

**Abstract:** In this paper we present theoretical notions concerning the global warming. Analysis of temperature variation recorded by the weather station AWS / EV in 2009-2010

**Keywords:** *Variation temperature, global warming*

### 1. Introduction

Industrial, agricultural, urban tourism in general human presence in the landscape, generating the damage from pollution and atmosphere, soil destruction and considerable tracts of urban and intra-urban destruction, disturbance of public tranquility.

The highest percentage of the electricity consumed by mankind is produced by burning fossil fuels. This results in the emission of CO<sub>2</sub> that is released into the atmosphere. He contributes to enhancing the greenhouse effect and global warming. Also, power plants emitting sulfur dioxide, nitrogen dioxide and smoke. Their result is intensifying the greenhouse effect and global warming and its consequences: 10F terrestrial surface warming in the twentieth century, melting ice sheets and glaciers snow left following the withdrawal, raising water levels and ocean temperatures, increased precipitation medium and high altitude areas of the northern hemisphere, a higher frequency of hurricanes, tornadoes and storms etc.

Technical and scientific revolution taking place at a pace more or less rapid, in all countries, both in the industrialized and the developing ones, increasing number of people, put before mankind technical and fundamental economic problems : growth of industrial production, agricultural production, the need for intensive sources of mineral raw materials, fuels and energy. These increases must take place under maximum protection of the environment [1].

The environment is an essential element of human existence is the result of interference of natural elements - earth, air, water, climate, biosphere - with elements created by human activity.

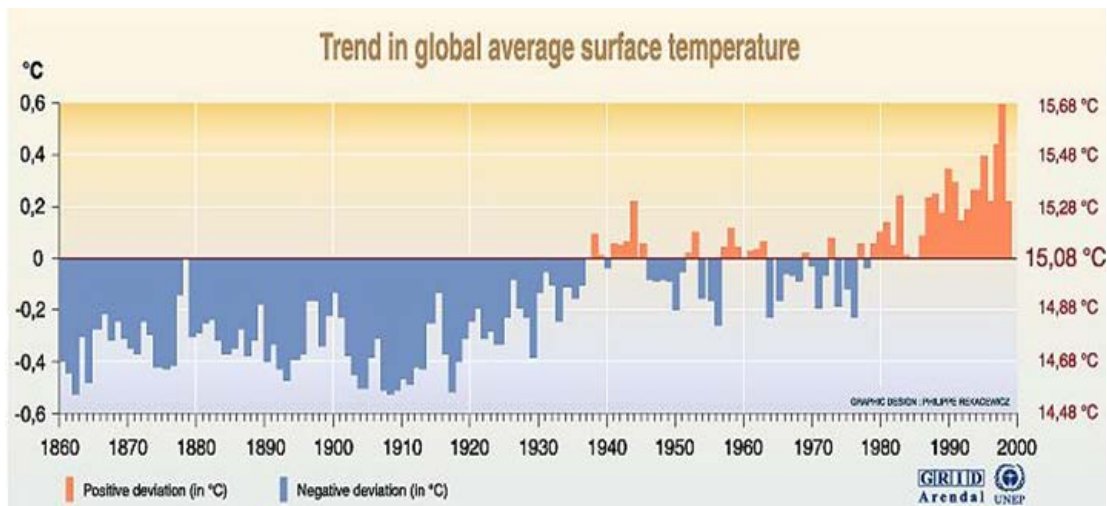


Figure 1 Trend in global average surface temperature [2]

The figure shows the combined land-surface air and sea surface temperatures (degrees Centigrade) 1861 to 1998, relative to the average temperature between 1961 and 1990.

The mean global surface temperature has increased by about 0.3 to 0.6°C since the late 19th century and by about 0.2 to 0.3°C over the last 40 years, which is the period with most reliable data. Recent years have been among the warmest since 1860 - the period for which instrumental records are available.

Warming is evident in both sea surface and land-based surface air temperatures. Urbanization in general and desertification could have contributed only a small fraction of the overall global warming, although urbanization may have been an important influence in some regions. Indirect indicators such as borehole temperatures and glacier shrinkage provide independent support for the observed warming. It should also be noted that the warming has not been globally uniform. The recent warming has been greatest between 40°N and 70°N latitude, though some areas such as the North Atlantic Ocean have cooled in the recent decades.

The heating is due to human activity, in particular by releasing carbon dioxide into the atmosphere by the burning of fossil fuels.

Global warming has profound effects in various fields. It causes or will cause rising sea levels, extreme weather, melting glaciers, the extinction of many species and changes on human health. Against global warming goes a sustained battle, whose central issue is the ratification by governments of the Kyoto Protocol to reduce emissions of pollutants that affect the rate of heating.

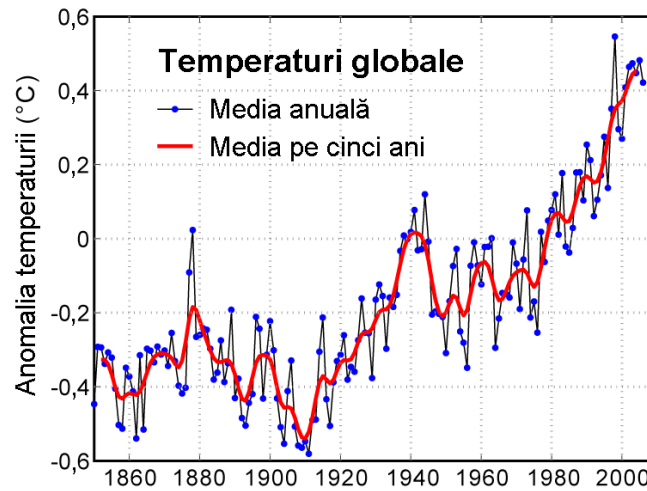


Figure 2 Global average surface temperature trend [3]

## 2. Materials and methods

Atmospheric temperature was monitored with Weather Station: AWS / EV.

The air temperature is one of the most important meteorological parameters.

Sensor temperature and relative humidity% RH sensor (TTEPRH-N) .

There are protections against reverse polarity and atmospheric discharges.

The sensor connector: 7-pole female

Measuring a temperature of from  $-30$  to  $+60^{\circ}\text{C}$

Response time  $<10$  s.

This is an analog sensor, the output signal according to the change of variation in the resistance [4, 8].

## 3. Results and discussion

Based on meteorological records by the weather station we performed statistical analysis, the results of the statistical analysis are presented in Figures 3, 4, 5. Other authors have performed their work, statistical analyzes on different materials [5,6,7,9,10]. Note that the trend is global warming in all months analyzed comparatively. In 2010 there were higher values in all months from 2009 looked at both lows station and maximum values recorded by the weather station.

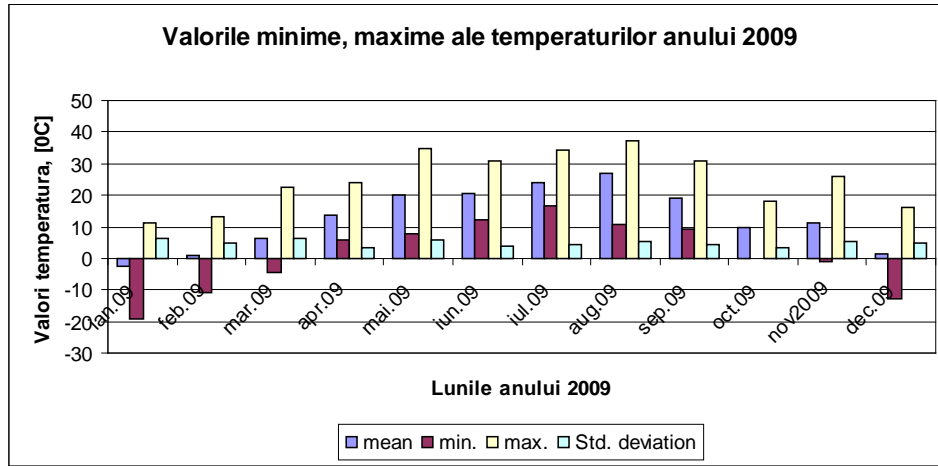


Figure 3 Variation of minimum temperatures, highs station in 2009

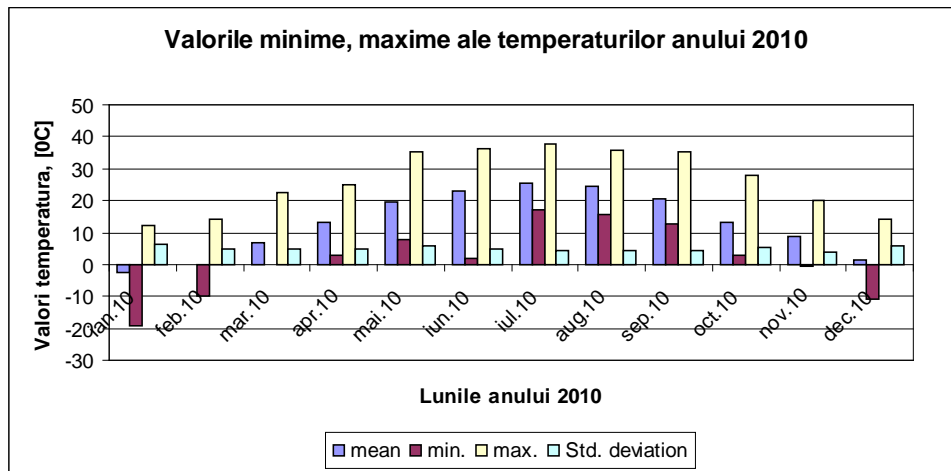


Figure 4 Variation of minimum temperatures, highs station in 2010

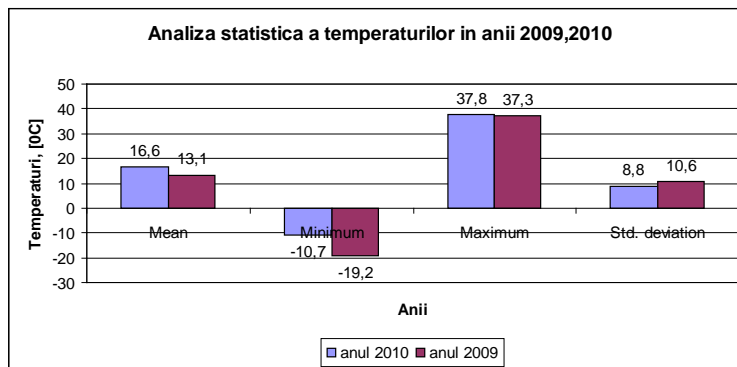


Figure 5 Statistical analysis of temperature values in the years 2009, 2010

**Conclusions**

In this paper is studied global warming as documentation and literature were analyzed atmospheric temperature values monitored by the weather station of the Faculty of Biotechnical Systems Engineering Bucharest.

It was observed that the trend is slight increase in atmospheric temperature values.

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