TECHNOLOGY, ECOLOGY – INTERACTION AND CLIMATIC CHANGES

Stefan IANCU¹

Abstract. The scientific proofs lead to the conclusion that our planet has changed his natural environmental condition due to the results of exploiting the power produced by the combustion of fossil fuels. In this paper, it is mentioned that, in reality, there are different opinions about the main responsibility in the atmosphere warm up (some scientists sustain that industrial development is responsible for the climatic changes, others consider that climatic changes have not been determined significantly by the industrial development. Solar system, stellar formations, sun radiations, cosmic rays have had also a great influence). In the opinion of the author of this paper, the mankind will have a future only if our planet ecosystem will, at least, preserve the existing climate conditions if not improve them. Actually, in our days, the civilization's development implies a continuum deterioration of the ecosystem. Climatic changes have been generated by multiple causes; people can interfere only to reduce the greenhouse effect gas emissions produced by the combustion of fossil fuels. This paper presents, also, the Olduvai theory that starts from the idea that, in our days, there is no a viable substitute for replacing the petroleum-the most important actual source of energy. In the end of paper, the author refers to the main existing technologies that can contribute to the diminutions of the climatic effects of the technology/ecology interaction. Reading again the renowned reports of the Club of Rome, we find that the lack of power resources was the great issue of mankind from 1960th-1970th. Hydrocarbon ores were assessed and how much time technology can count on them was also evaluated. The last decade of the millennium II showed another reality. The development pace imposed by the "history acceleration" has evolved in the last three decades without taking into consideration the ratio between the extent of the human activity and the natural resources. The global economy annual increase was measured one century ago in billions of dollars. At the very start of millennium III, this increase was measured in trillions of dollars (Brown Lester, 2006).

Keywords: climatic changes, globe climate, technology/ecology interaction&industrial development

A future will exist for the mankind only if our planet ecosystem will at least preserve the existing climate conditions, if not improve them, because nowadays the civilisation development implies a continuum deterioration of the ecosystem. In order to see how the environment conditions have been influenced during the centuries by the "results" of the human civilisation, let's compare the evolution of the world population number and the evolution of CO_2 , CH_4 and NO_x concentration. The below graph shows also the principal moments that have significantly influenced the industrial development of the humanity (Fig. 1) (Iancu Stefan, 2007). The world population has evolved around an almost constant figure in the first millenniums of the human existence.

¹Eng. Ph.D. Professor, Founding Member of the Academy of Romanian Scientists, Industrial Property Consultant.