

## EPISTEMOLOGICAL ARGUMENTATION OF SUSTAINABLE DEVELOPMENT AND GREEN ENERGY

MAFTEI DANIEL

POSTDOCTORAL RESEARCHER, INSTITUTE OF NATIONAL ECONOMY, ROMANIAN ACADEMY, BUCHAREST, ROMANIA

Email: danielmaftei@yahoo.com

**Abstract:** *It is curious how the society is becoming more developed, but at the same time, increasingly ill, although it has a stock of so vast knowledge. In the last years this knowledge, combined with technology are increasingly directed more towards remedying environmental problems. However it seems that efforts are not enough. So when all these modern realities were still in their early stage, the scientific community has rung alarm bells that were first expressed terminology and then through practical plans of what we generic call today, sustainable development. The paper proposes an analysis of the issues of sustainable development and energy from epistemological and knowledge perspective of the various theories that directly or indirectly address these issues.*

**Keywords:** *sustainable development, green energy, epistemology, energy theories*

**J.E.L. Classification:** *F52, P28, Q01.*

### 1. Introduction

Awareness of rational exploitation of resources has increased lately even more, especially considering the obvious ecological crisis faced by the world, and on the strength of alarm the alarm signal that pulled the energy crisis of the 1970s. If we approach economically the resources we can discuss of two major types: first, the "natural wealth" as its many forms, from coal, gas, oil, nuclear power that have dominated the interest of the whole society throughout history. A second category of wealth has an unusual shape and was "discovered" at its true value much later - it is information that has now become very important. Viewed through the prism of economic development, which has permanent need of energy, and which carries indispensable of environment, of ecological systems, it is often named eco-development, the relative harmony between the environment and economic development. Technical and scientific progress every day brings new ideas that are exchanged for new ways to new economic growth performance. They can make significant, even radical the natural environment in which takes place the economic activity.

The irrational exploitation of nature began to take shape once with the energy crisis and the crisis of raw materials when it was found, for the first time, a chaotic use of natural resources with serious consequences for general and local ecological balance. Recent decades increasingly reflect better the old idea that man and nature walk on two different paths, we can say antagonistic, because each has its own set of rules for development.

If talk of an environmental dimension in economic growth field, awareness of this part was done much later and had, inevitably, a number of causes. If talk of an environmental dimension in economic growth, awareness of this part was done much later and was inevitably a number of causes. The first one was the existence of misconceptions assign a role more important than financial resource type and the means by which it was obtained, wiping from analysis plan or minimizing the "quality" part of development of environment and ecosystems. Secondly, it seems that public attention has not been drawn to such a subject, as long as other issues, considered more important, kept daily agenda - global variety development, wars and arming, poverty and hunger, etc. In the third place, in the framework of some economic theory was fueled the contradiction between the idea of economic development and the environment - until recently, when the attitude of several specialists seems to have evolved while making it a part of the antinomies of two concepts. But rhetorically we ask if their old theories were not supported by economic or political arguments.

Over time it was materialized numerous environmental concepts and they gaining a varied character. Some of this draw attention with the theories in which they were handled, especially that they are clearly referring to environmental protection through the use of alternative resources and bring forward growth using alternative and clean energy sources that not affect the environment.

## 2. Theories concerning the sustainable development and energy

The first theory with reference to environmental protection is "Ecocentric Theory" which brings to the forefront the idea that the protection of Earth is an aim in itself. The planet must be defended without any reservation, without any doubt. Any brutal human intervention on Terra resources is convicted and punished.

Therefore the planet must be preserved throughout of her future. Consequently man takes a secondary role in such global equation, it is only one element among millions of other constituents of the planet. Conservation of "Global Wealth" prevails. Also, at this point, in our analysis we can mention the work "Limits to Growth" (Aurelio Peccei) developed [7] following the request of the Club of Rome, which states that around the 2050s, keeping a constant linear rate of growth, nonrenewable and traditional resources will be exhausted in most of them. But not only will be exhausted, but will leave behind their use an environment which starts to be increasingly hostile to man who used for a time these resources to produce energy, but which have to find new ideas to counter the effects, on the one hand, and to continue daily activities, on the other hand. The solution offered by this theory is intended to slow the economic growth, moreover, give it a downward trend. The conception still leaves open gates to adopting innovation to produce clean energy.

The second conception is concerned especially of the other forms of life and of globally existing species, taking name of "biocentric conception." It is bound by its contents of Ecocentric theory but also present some nuances. The analysis angle provides an overview of things that, generally, the animals can not defend themselves as a man does. The only attribute of the latter argument is to defend the diversity of flora and fauna. Therefore we perceive that the theory lacks something: do not consider the man who has already reached a certain level of development, knowledge, and that these processes are effectively irreversible. Only by contradiction, conceptual, scriptic, could be imagined such a way to build a global society. Another weak spot of theory is the excessive conservatism that does not take into account the danger of existence of human being for the future. Protection of animals, plants, like an argument against millions of hungry people and poverty can not stand. Therefore the theory needs alternative to the raised issues, the solution to the energy production so indispensable to man. Father of this theory, namely of Biocentric theory [3] is considered Nicholas Georgescu-Roegen, with his base "The Entropy Law and the Economic Process" (1971). Other prominent promoters of this conception are Albert Schweitzer, a doctor from Alsace region in which gave organ concerts in Europe to earn money to invest in maintaining a hospital in Africa and for environmental projects. Albert Schweitzer was a theologian and philosopher. He received the Nobel Peace Prize in 1953. Included are Pierre Techarde of Charoin, biologist who published between 1923 and 1927 three books with wide popular addressability "Future of humanity" [12] "Man's place in nature [11] ", " Human phenomenon [10] " .

The third concept is the "anthropocentric conception" on environmental conservation that contains the idea that everything is dependent on human needs - these needs are constantly growing and diversifying. However we can not generalize human importance as a factor which permitted any action in strengthening its own good - especially that at this point there is a very important nuance, namely: if the man knows which is his own good or not. Do not induce momentary good the long-term harm? Thus, any idea that the good of the individual moment is satisfied induce the opposite in the long term.

The experience of the last century has shown that human development must take place within the limits imposed by nature - otherwise, it calls into question the existence of the human species. From theory we can extract the idea that the expansion of human interests can be achieved using nature as long as it does not affect his native balance - we may use the renewable resources, fueling our energy needs in an increasingly growing. Among the promoters of this theory we can mention Protagoras of Abdera (~ 450 BC) who said that "man is the measure of all things". Continuing somewhat the same idea, the Frenchman René Descartes called the man as "master of nature." They are contradicted today by the ecological practice showing that man is the only one who measured things and not the center of these measurements. We conclude on the concept that "can not accept the destruction of nature as a sacrifice on the altar of economic growth" as stated Elcheveria L. Alvarez, leading figure in the field of environmental protection.

## 3. Ideologies related on sustainable development and energy

At the same time, we can talk about a number of related ideologies that resides in the concepts above, involving the environment in various forms and including energy production. The first ideology is the abundance theory that brings in the first plan the growth and development through resources, through their exploitation. In the markets they have a liberal character, without any restriction on the environment.

When referring to a priority aim it is the maximization of GDP. Markets therefore have the ability to adjust supply and demand eliminating any restriction in the lack of resources. Ideology emphasizes the interests of the people who live now and almost never on the legacy of future generations; nature becomes a tool in the hands of exploiters.

On the other hand, conciliatory ideology is at the other pole, and places particular emphasis on rational management of resources as well as conservation. Also is assigned a new role for the economy - that of environmental protection through economic levers. Economic growth is motivated only by careful choice of the means of production

and consumption rate with direct effects on the environment. It excluded the idea of infinite durability. It promoted the idea of an active concern for others by bringing it to the forefront equity between people, and between generations. Even if it promotes care for nature, it still retains the instrumental character. In terms of energy, not deny its importance; it accepts the idea of rational use, but the idea becomes more declarative than proactive.

A third related ideology that lies the theories above is Community Theory. The premise from which we start is to save resources. From an economic perspective, it proposes to ensure a state of stagnation in both area, economic and demographics. Collective interests are those that prevail over private interests and individual order. The value of goods receives a secondary role to the ecosystems that are at the forefront of vision.

Fourth ideology is the "radical". It goes towards conservation of the environment taken to the extreme, a total conservation of resources. [8] Thus, everything that means the environmental regulation is designed to be very strictly for the environmental impact to be very strict. In this vision is absolutely necessary a decrease in consumption and in economic growth. It promotes the so-called "bioethics" which conveys the idea of a morality that characterizes all planet species - nature becomes an intrinsic value and becomes totally independent of any human activity.

All the concepts mentioned above can bring them together under a generic name of "reconciliation between man and nature [5]," which seeks an approach of expanding human activity by reference to principles of general equilibrium of nature, providing a economic growth needed for humanity, and a reasonable framework for the recovery of the elements of nature. Energy that we need, in light of all these considerations, must be given one of the determinants of "green", "organic," "sustainable," "renewable". [4]

#### 4. Conclusions

To see the advantages of green energy and bring new arguments to support it, we can not summarize a simplistic definition, but it requires synthesis through analysis.

Man uses energy in its various forms involving all economic activity, processing the raw materials taken from nature. Objects used by each individual and results from the production process to meet the necessities of physiological, spiritual or social needs have as origin the only raw material that has been subjected to processing with energy aid. Unfortunately, we can conclude that the way to produce energy is quite damaging, moreover, turns against man. The solution for the future is clear energy from renewable sources, confirmed by countless specialists.

The problem occurs when the energy is not sure when the national and international market movements creates concerns. What strategy to apply? Within which ideology we argue our actions? Moreover, these states seem to intensify; studies, civil society, media, show a widening of resource issues, and the prices begin to rise to an unbearable limit to final consumers. The solutions are to identify problems, diagnose them correctly and acting knowingly through strengthening existing partnerships, creating new ones, creating energy research, environmental protection. The fact is that environmental resources are running out and the climate seems to change more and more - energy cost increases, international conflicts are intensified and affect the energy supplies. Currently, but more so in the future, energy will become an economic and political blackmail actively supporting totalitarian regimes tint.

Although the two energy approaches of largest markets, the European Union and the United States do not appear to have changed greatly in recent decades, environmental problems increasingly arising the government that is pressured to give a real start for green investments. The European Union has done much more in this area by creating a coherent legal framework, but too bureaucratic.

In times of crisis always resurface energy issues [6]. From politicians to investors all make statements about such a subject, particularly statements about the oil market. This market is becoming increasingly difficult given the power transmission and prompt supply. At the same time access to energy is becoming increasingly complicated by the large emerging markets such as China and India where its absence would leave millions jobless employees who would remain poor with their families.

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