Managing Economic Solution for a global sustainable Development

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MANAGING ECONOMIC SOLUTIONS FOR A GLOBAL SUSTAINABLE DEVELOPMENT

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Abstract: - We live in an imperfect world. The poverty, the disease, the lack of education, the environmental destruction, the energy crisis, the overpopulation, the increasing consumption of resources, the deforestation and desertification, the biodiversity loss, the pollution, the emissions of greenhouse gases, the climate change, water supply, human violence etc. are all current issues. What can be done to provide adequate solutions to these problems? How to respond to these issues?

Key-Words: - globalization, cooperation, economic development, environment, energy development

1 Climate change - a global emergency?

Each of us is different, and every day we bring an impact on the environment and living beings around us, but we have a choice about what kind of impact we do. When one person in several billion is saving energy, it would have no impact on the energy crisis, but if one million or billions of people would do the same this will lead to changes which certainly must see. [1]

As we can see our valid option is to react to climate change for maintaining and improving our environment conditions.

2 Economic development and environmental involution

Limiting resources and even their absence cause permanent increase of their prices. Growing consumption of resources may be beneficial considering the support offered to people, but also has negative influences about pollution and environment degradation. The extent to which the environment is affected can be revealed by the amount of CO_2 emanating from each national economy. We observe more frequent the problem of using renewable sources in terms of sustainable development.

The field of renewable energy is a strategic one for Romania and for all member of planet Earth. Romania has to align to European regulations, and this must happen "whether we like it or not". A first stage for the authorities is 2020 time period to be reported a decrease in emissions of greenhouse gases by 20%.

British ambassador to Romania, Robin Barnett, said: "It needs to focus on investments in renewable energies and stimulate research in green technologies. Also, the storage and carbon capture and may generate new jobs. In this sector, only in Britain were created nearly 900,000 jobs." [2]

Value commitment to reduce emissions of greenhouse gases made by Romania is 8% over the year 1989, so our country can issue approximately 1.279 billion tons of CO_2 between 2008 and 2012. According to a national inventory of greenhouse gases, drawn up by the Ministry of Environment, during 1989-2007, decreased CO_2 emissions (from 193,307.70 Gg in 1989, to 110.883 Gg in 2007) is due to reduction in the amount of fossil fuel energy as a consequence of the decline in economic activity and investment in new technologies. Also, statistics of the European Environment Agency (EEA) reveals that energy is the most important responsible for 68.3% of the generation of greenhouse gases. [3]

Following the Kyoto Protocol, Romania has the right to sell a surplus of more than 200 million of CO_2 certificates. This is a surplus. Selling it can bring to the state budget almost two billion by 2015, according to professionals. However, experts believe that when such a transaction would not be so favourable, since the sale of certificates of CO_2 does not guarantee a quick recovery from the state budget due to unfavourable economic conditions globally. Under the Protocol, each Contractor State undertakes not to exceed a certain amount of CO_2 in 2008-2012; the difference compared to fixed target can be exploited through the sale of allowances to other countries which fail to achieve their target.

Romania, one of the countries participating in European system for trading carbon dioxide emission allowances, following the Kyoto Protocol, was ranked in 2008, the ninth EU after quotas respectively 70.65 million tons CO_2 equivalent, according to the European Commission. Verified CO_2 emissions of Romania fell last year by 8.7% over 2007, to 63.5 million tonnes, and the number of installations rose by 3.3 percent, to 252.

According with the EC report, in 2008, most free allocation they received in Germany (388.7 million tonnes CO_2 equivalent), United Kingdom (213.5 million tonnes) and Italy (211.7 million tonnes) and the fewest, Malta (2.1 million tonnes), Luxembourg (2.5 million tonnes) and Latvia (2.9 million tonnes).

In our opinion that "green certificate system" is dangerous, if we consider that the two transnational companies CEZ and Enel build their separate wind farms. As a menace, if these companies reach their target of green certificates, the remaining small operators will not have anyone to sell them.

Now, in Romania, currently operational system consists in promoting renewable energy mandatory allocation of quotas and green certificates, stipulated in Law 220/2008. Also, renewable energy resources are passed too easily overlooked by the current governance, even if this type of energy requires very large investments.

According to estimates of the Ministry of Economy (ME), in 2010, the national consumption of electricity from renewable sources will represent 33% of gross national electricity consumption of Romania, approximately 11% of total energy consumption.
According to a study of the National Meteorological Administration (NMA), in the year 2008, the wind power produced in Romania have had an installed capacity of 76 MW, this represent an increase of over 10 times compared to 2007, when there were only 7 MW. Considering the wind energy potential NMA drew the map of wind energy sources in an average height of 50 m, using geographical and meteorological data collected from 1990 to the present. It identifies five distinct areas with potential wind energy in accordance with the existing topography and weather conditions. According to the assessment and interpretation of data held in Romania can be mounted wind with a total capacity of 14,000 MW, equivalent to a contribution of electricity to approximately 23,000 GWh / year.

Also, a research conducted by Erste Bank found that trough Dobrogea area (counties of Constanta and Tulcea), Romania ranks second in the European ranking of the best locations for wind farm construction, but ranks last in production technologies. [4]

3 Current status and possible solutions

Over time, new methods and topics are developed and arise from theoretical research, applied research and other due to trade and development or the establishment and discovery of new tools.[5] Emerging technologies based on innovation characterized and specific ages XX-XXI, have appeared, developed and take account of technological convergence of different systems, which evolve towards similar tasks.[6]

Emerging technologies are those based technical innovation is the progressive development in an area of competitive advantage. Converging technologies are previously distinct fields, which in some way moving towards each other, a stronger connection and similar objectives. However, opinion on the degree of impact, status and economic viability of several emerging and converging technologies vary.

The production capacity of wind farms nationwide, according to a study of the Romanian Institute for Energy (IRE) shows a level of 13 TW for 2020.
Currently, The CEZ Group, one of the most powerful producers, energy suppliers and distributors in Europe, built in Romania, Dobrogea area, in Constanta county, the largest wind farm on land in Europe, with an installed capacity of 600 megawatts, representing approximately twice the capacity expansion of the largest wind farm now existing in Europe and nearly triple the largest operating wind farm, at present in Europe. The total cost of this project will reach 1.1 billion euro.

Emerging technologies generally designates significant technological developments, address new areas through a special manner. Increasing technological application of new technologies to generate energy includes incremental developments and disturbances. An example may be a gradual replacement of fossil coal-fired power plants through technologies. By contrast, new technologies are disruptive and cause problems when replacing an earlier technology and are redundant. Thus in regions where unemployment is shut down or modernized capabilities and employment is evident in other areas where new investments are located.

The natural gas demand will be reduced by 3% in 2009, according to the specialists studies.[7] "In the first half of 2009, electricity consumption of major European countries fell by 5% and gas by 9%, compared to the first 6 months of 2008, Capgemini experts said, arguing the economic crisis and decline slowing industrial activity. Reducing consumption began to affect large European energy suppliers by reducing liquidity. To face these financial challenges, the big energy suppliers have delayed investments in production capacity, and it is not good news.

Even if it is too early to find a general decline of investment, renewable energy sector in Europe is already affected by a decline of 14% in the first half of 2009, after an annual average growth rate of 56% in the last 5 years. International Energy Agency estimates a decline of 38% of investments in renewable sectors this year. In Romania, electricity consumption in the first 9 months was reduced by 9.3% according to the National Institute of Statistics.

As solution is envisaged investment projects will have to source money to be collected from the population. The population may be forced in future to pay on electricity bills, an environmental tax, according to Ministry of Economy. Such provision to be applied in 2-3 years in Britain. The fee could be used for the construction of CO2 storage units are estimated at 1 billion euro per unit.

More than 40% of the Romanian electricity comes from burning coal (the most polluting fuel) and emissions of greenhouse gases are expected to grow in direct correlation with economic development. The producer of electric and thermal energy CE Craiova, as, indeed, all thermal power stations in the country, is among the biggest polluters. All thermal power problems are big polluters and risk being closed. The hazardous emissions reduction has a priority. Even if the entire industry has projects and programs aimed at the environmental problems are not demarcated action to materialize results.

Energetic Complex in Oltenia - which uses fossil charcoal in Turceni, Rovinari and Craiova - covers about 1/3 of electricity production of Romania. One solution considered by the gas producer Romgaz, the national gas carrier Transgaz and the electricity producers Craiova Energy Complex is to create an association for the first CO_2 capture emissions in the country. It will be realized in partnership with Norway. At this time it lays the groundwork for a project feasibility study in partnership with the largest energy company in Norway, Statkraft, to capture CO_2 emissions, and could cost around 500 million euro.

Is this the right solution for Romania and other states which ratified the Kyoto accord to invest for reducing pollution and the others to do nothing? "The U.S. produces nearly a quarter of the world's greenhouse gases each year and has stubbornly made it clear that it does not intend to do a whole lot about it. Although 174 nations ratified the admittedly flawed Kyoto accords to reduce carbon levels, the U.S. walked away from them."[8]

4 Conclusion

Many writers, including the futurologist Bill Joy, have identified areas of technology which it considers essential to the future of mankind. Joy warns that new technologies could be used by elites in a good or bad. They could be used for the common good of humanity, or can decimate entire mankind. [9]

The benefit advocates determined by the changes in structure energy production using emerging and converging technologies stresses that they may offer a hope for improving the human condition. However, critics, as the philosopher Nick Bostrom, shows that the risks arising from these changes could involve existential risks. [10]

Much of the ethical debate centred on issues of distribution of resources, their allocation and access to beneficial forms of technology. Some thinkers, such as Bill McKibben – are concerned about protecting the environment - even opposed to the continuous development of advanced technologies in part for fear that its benefits are unevenly distributed in ways that would worsen the situation of poor countries. [11] On the contrary, the inventor Ray Kurzweil is one of techno-utopian who believes that these changes could eliminate poverty and suffering. [12]

The next Copenhagen Conference from December should be a moment when nations should reach a historic agreement on the future of the planet's climate, said the British prime minister Gordon Brown, on October 19.

Gordon Brown has shown that countries should not wait until a future date to agree about a successor to the Kyoto agreement. Every country has the responsibility to determine the next years. If emissions are not reduced can not return the current options, probably will be too late.

It should, in Todd Stern's view [13], that developing economies to increase efforts for reducing emissions, warning that it is "certainly possible" not to reach any agreement in Copenhagen. "What should happen is that countries like China, India and Brazil and South Africa and others to increase their contributions signing an international agreement.

The application of modern technology provides a comprehensive review of issues related to design, implementation, integration, development, evaluation and assessment affairs. [14]

We observe that solutions exist, but must be applied by each of us, in every country of the planet Earth. What is missing, is political will that through its' emerging effect may involved us actively in our common effort to live better in a sustainable economic environment.

Information is one of the most precious resources. It is constraints of limited human intelligence, innovation and imagination. Application of appropriate measures can provide new energy technologies that may revolutionize potential missing information environment and society. However, as most resources or technological information is not shared equally. It is indeed enough of ethics their application by providing all of the latest research on technology in the energy field? Full and free sharing of information and knowledge in all sectors would allow progress, development and transformation required in environmental, sustainable development to overcome the challenges of the contemporary world and make this world a better place for all of us.

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