Journal
ISSN 2069 – 5934
ScientificPapers.org
of Knowledge Management, Economics and Information Technology

http://www.scientificpapers.org

The Initiative "The Innovation Union"

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"Free flow of ideas" is another component of the liberty confirmed by the EU Constitution who seeks to open without restrictions, for the benefit of all countries, of participation to the expansion of the European innovative heritage.
The European Commission released on February 1 this year the first "scoreboard"[1] on innovation performance for 2010. Corresponding to this report, the EU has failed to catch up with the gap that sets it apart from USA and Japan in the field of research and innovation (especially in the private sector).
The analysis of macroeconomic indicators shows developments, insufficiently fast, within the EU. However, given the economic crisis and its impact on all activities including on research, the efforts deserve to be highlighted. Currently, the EU is, however, before India and China (the most emerging countries of the world)[2] trying to revitalize an area of innovation and research through considerable financial efforts.

Keywords: *innovation, competition, externality, welfare, European social model (ESM).*

Time of knowledge and innovation

The new wave of knowledge according to Toffler[3], starts form the dramatic changes in our relations with space, time and knowledge.
Meeting the needs for hedonism has other connotations and a different interpretation. Let us explain. Meeting the needs converts in an important landmark, constant and obsessive, for the existence of the individual. But not for the actual pleasure but in order to ensure proper continuity of its capabilities to work in order to ensure tomorrow.
According to Toffler[4] at present the most revolutionary wave of change began a half a century ago, it is the wave of change in terms of wealth creation. The accumulation of wealth however has other connotations and dimensions, which aim primarily individual accumulation in order to demonstrate the ability of individuals to get rich.

In light of the above, ***Thorstein Veblen's*** critique (1857-1929), American sociologist and economist criticizing upon upstartism based on enrichment obtained through less accurate economic ways, warns on changes in the society's structure as a result of desire for prestige.
Innovation and its role in global transformation represent also the approach of Thomas Friedman in his book called "The Earth it is flat. Brief history of the 21st century"[5].

According to the author, the process of globalization experienced three eras. ***First***, the era in which the world decreased in size, from large to medium, thanks to trade opening between the

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[1] EurActiv 4 February 2011
[2] China makes great efforts to recover the gaps.
[3] Alvin Toffler and Heidi Toeffler-„***Revolutionary wealth***", Antet Publishing House 2006,Chapter. 22
[4] Ibidem, page 134
[5] Thomas Friedman-"***The Earth is flat. Brief history of the 21st century***", Polirom Publishing House, Iasi, 2007, Chaper 1.

Old World and the New World (1942 since the expedition of Columbus until 1800). ***The second***, starting with 1800 and ending with 2000 (with interruptions due to the crisis from '29-'33 and of the two World Wars) where the dynamic force is represented by the multinationals. Consequently the Earth decreases from medium to small. ***The third***, in which the force and power belongs to the individuals through collaboration on competition on a global scale. In this stage of globalization the Earth becomes very small, because the distances become negligible due to " the convergence between the personal computer… with an optical fiber cable… and the development of software of automated business procedures…"(op.cit. p. 26-27).

If in the past decades the science was asked to provide solutions on finding resources in order to increase the quantitative economic indicators, being put in service of quantitative development goals, currently research and innovation are called upon solving the negative effects created by the quantitative "rush" for resources and their use.
Previous ***quantitative measures*** which have marked the orientation of research, with a predilection for quantitative (economic supremacy based on possession of resources of all kinds, even those which proved to be harmful through the effects of their use) have now turned into a new challenge.

At present, ***qualitative research objectives*** are designed to monitor to respect and protect the climate, ecology and the individual.
Although it would be appropriate or should demonstrate a neutral stance toward the economic and politic interests, the same science, currently, has the aim to correct what people did wrong by exaggerating their decisions and by irrational actions, from the past.
The economic rationality paradigm has now a new content, new dimensions and changed data. The history demonstrates, once again, that what was efficient, good and favorable for a phase, as a result of time passing, may become an obstacle and a restriction in the way of progress.

Of course, progress has its price that each society must pay. The important thing is how big this price is and especially who pays it.
The very concept of ***welfare*** currently supports changes. Quantitative assessments have prevailed as long as there was no question of rationalizing the consumption of resources.
If welfare was assessed (once) quantitatively, measured by the number of goods and services acquired, currently, the economic and public opinion is concerned on appreciating the welfare's qualitative side.

Consumer theory itself acquires new meanings and interpretations. Currently, the concept of welfare has other qualitative connotations. We appreciate consumption, not by quantity but by quality. How free from harm, how clean or how safe they are for the integrity of our body and life, are the products and services we consume.
The whole thinking of the past millennium was targeted towards the quantitative aspects of the existence; the entry into the 21st millennium marks a change of mentality which of course, will determine a new attitude and behavior appropriate for the new objectives.

Innovation – positive externality of the competition policy

Competition encourages innovation and lowers the prices. In order to be effective, competition needs suppliers that are independent one from another, but each being subject to the competitive pressure exerted by the others.

Community competition policies regulate the single market activity. However, one cannot ignore the possibility of negative effects due to conflicting trends manifested. These are on the one hand the development of market structures, and on the other hand the extent of the concentration processes and centralization of capital.

The Community competition policy strives, further on, to maintain a balance between internal dynamic market and the single European market. If internally, the competition policy aims to the elimination of barriers on free movement of goods and services as well as the elimination of monopolistic behavior at the Community level, restrictions occur, practiced by some countries, regarding the entrance of products and services from other countries.
In designing the policy from the competition area, two guidelines can be distinguished. One refers to competition as a goal, and a binding mechanism for the proper functioning of the market. And the second represents the competition as a means to achieve the objectives of profitability. Being a fundamental tool, but not the only one, competition contributes to the economic efficiency and to the increase of quality in human life. However there is another orientation after which the unrestricted freedom of action for entrepreneurs exceeds the competition policies' imposed respect limits.

The measures for purchase and use of innovations go along with competition policies because they represent the efforts of entrepreneurs to invest in innovation and to design a technical innovative standard, which can be imposed on the market.
This standard, having social effects internally / externally, targeting the labor market or the environment, leaves the competition area because innovation will belong and will receive a public good regime.

A conspicuous contradiction occurs which triggers conflicts, when formulating a variety of objectives, felt by the market and by the population. Of course, these conflicting effects will be reflected also at the economic and social policy level, designed at a community level.
Addressing the issue can be made from at least two points of view, as follows:

a) The relation between sustainable development (with its priorities) and the Lisbon strategy that aims competiveness through economic growth and through creating new jobs (which represents economic development);
b) The relation between sustainable development and economic competitiveness of EU faced with globalization (competitiveness arising from economic growth with negative externality effects).

The objectives included on two different agendas, one economic, one political, demonstrates the concerns over the increase of ***economic performance within the EU.*** They aim to connect the performances to the SG principles, and at the same time, reporting the EU economic ***performance to the rest of the globe, subject to the need for SG***.

Two conclusions can be drawn from these approaches:
The first conclusion refers to the fact that SG is overshadowed most of the times, even in the eco-social policy objectives, by the Lisbon strategy objectives.
The second conclusion, expressed in a profoundly declarative manner (from our point of view), through which it is acknowledged the need for linking the national efforts with those of the EU integrated space. The results, however, are less noticeable and perceived.

From a theoretical point of view, the private costs related to the production activities are reflected at the market level and don't reveal, in a fair economic manner, the social costs perceived by the society. In order to correct this economic and monetary injustice, the state intervenes through the fiscal policy that charges the economic activities and the services that have negative effects on individuals and on society[6].
It is clear that environmental protection will be made, from now on, with great and sustained financial efforts, from both the hired companies and also from the consuming-population which eventually bear through the environmental taxes a good part from the costs for pollution. The companies will increase the distribution cost as a consequence to the taxes imposed by the international organization subject to the protocol constraints, and the increased prices will be borne by the beneficiaries. ***Paradoxically, the welfare of the 21st century will diminish while measures for increasing welfare will be adopted***.

The European commission has launched a proposal for creating a project "Green Book"[7] which has as a goal full exploitation of the financial contribution of research and innovation within EU regarding 2020. The aims of this "common strategic framework" contained within the Green Book are: facilitating participation in programs, increasing scientific and economic impact, improving the quality-price ratio.
Stimulation of the EU funds for research, creating new jobs, improving the quality of life in a Europe faced with climate change problems, energy efficiency and food security, connect with the crisis wherewith the European social model is facing.
Encouraging SMEs (as laboratories for the large businesses on innovative capacities testing on a large scale) constitute a time of economic revival, welcomed for these businesses.

The Green Book combines several key issues. They relate to improving the institutional framework with a stimulating role on competitiveness and increasing flexibility of the funding mechanism of the innovating activities.
EU endowment with a world class science base, boosting competitiveness in all areas, resolving issues caused by climate change, efficient use of resources, energy and food security, aging and health of population represent daring and risky objectives due to the extensive differences in development within EU.
To this end, achieving a higher attractiveness level of the European funds, involves using common[8] IT tools. Funding instruments should be extended to all the links of the innovation activity: fundamental and applied research laboratories, compartments within businesses, collaborative relations between the academic area and the practice area.
Stimulating the economic environment will go simultaneously with close academic research to ensure the relevance of the applicability of the results.
Such a trend marked by the increasingly pervasive role of innovation in all aspects of life, must be maintained further on, leaving all the global opportunity doors open.

Connection, communication, collaboration and competition forms a quadrangle in which the perspective of our existence falls.

[6] The problem of externalities, as evidence for market failure has been introduced in the economic theory by A. Marshall, then This subject was revived by A.C. Pigou with theoretical support (pigovian tax), R. Coase (with the well-known theorem), Andrew Schotter (the paradox of "lemons") and probably the preoccupations will continue because of the interest of economists for internalizing the effects of the interdependence of economic agents activity
[7] "Common strategic framework" presented in a "Green Book" will cover the current Research Framework Programme (FP7) Framework Programme for Competitiveness and Innovation (CIP) and the European Institute of Innovation and Technology (EIT).
[8] EurActiv 10 February 2011

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Implications Of Payments For Ecosystem Services Based On The Redd Programme

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Deforestation and forest degradation, through agricultural expansion, conversion to pastureland, infrastructure development, destructive logging, fires etc., account for nearly 20% of global greenhouse gas emissions, more than the entire global transportation sector and second only to the energy sector. It is now clear that in order to constrain the impacts of climate change within limits that society will reasonably be able to tolerate, the global average temperatures must be stabilized within two degrees Celsius. This will be practically impossible to achieve without reducing emissions from the forest sector, in addition to other mitigation actions. Reducing Emissions from Deforestation and Forest Degradation (REDD) is an effort to create a financial value for the carbon stored in forests, offering incentives for developing countries to reduce emissions from forested lands and invest in low-carbon paths to sustainable development. "REDD" goes beyond deforestation and forest degradation, and includes the role of conservation, sustainable management of forests and enhancement of forest carbon stocks.

Keywords: *deforestation, Reducing Emissions from Deforestation and Forest Degradation (REDD), payments for ecosystem services, implications*

INTRODUCTION

It is predicted that financial flows for greenhouse gas emission reductions from REDD could reach up to US$30 billion a year. This significant North-South flow of funds could reward a meaningful reduction of carbon emissions and could also support new, pro-poor development, help conserve biodiversity and secure vital ecosystem services. Further, maintaining forest ecosystems can contribute to increased resilience to climate change. To achieve these multiple benefits, REDD will require the full engagement and respect for the rights of Indigenous Peoples and other forest-dependent communities. To "seal the deal" on climate change, REDD activities in developing countries must complement, not be a substitute for, deep cuts in developed countries' emissions.

1. FORESTS, PEOPLE AND CLIMATE CHANGE: THE REDD SOLUTION – QUANTIFYING AND INTERPRETATING PROGRAMME'S RESULTS

Major reductions in global greenhouse gas emissions are necessary if we are to avoid disastrous climate change. Given that deforestation and forest degradation account for up to 17% of man-made global greenhouse gas emissions, conservation and sustainable management of forests is a good place to start. The relatively new approach of **Reducing Emissions from Deforestation and forest Degradation (REDD)** can help achieve this goal if it is based on good social and environmental principles and fully integrated into broader strategies aimed at achieving deep cuts in carbon emissions from fossil fuels.

With the impacts of climate change more serious than previously thought, REDD can offer a 'bridging strategy,' reducing short-term emissions and buying time while the world adapts to a low carbon path.

To maximize its effectiveness, REDD needs to be broadened to include the restoration of degraded forests and enhancement of carbon stocks, alongside conservation and sustainable

forest management. This is known as ‘REDD-plus’ and offers multiple environmental and social benefits.

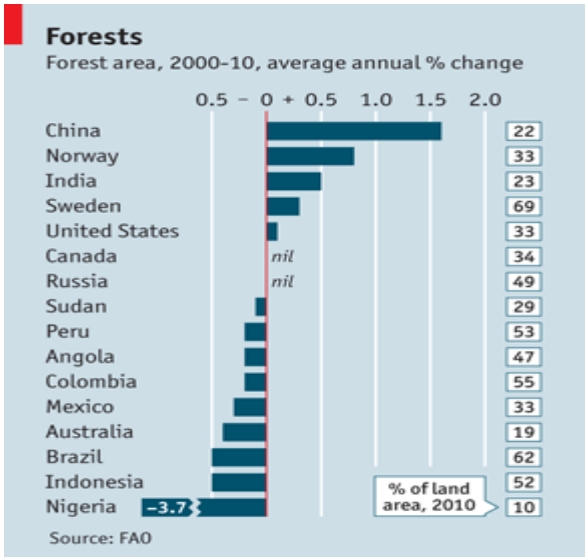

Fig. 1. The evolution of forests around the world between 2000 and 2010
Source: http://www.globalpost.com/dispatch/mexico/101210/redd-deforestation-climate-change-conference-cancun

A commitment to launch REDD, with “substantial finance”, was the only obvious success of last year’s Copenhagen summit on climate change. It led to the inaugural meeting in Oslo in May of a 58-nation group, the REDD Partnership, which will hammer out the details for a global REDD deal. To get things moving, half a dozen rich countries, including Norway and Britain, have pledged to provide $4.5 billion by 2012.

How REDD will be funded after that is unclear. It had been assumed that carbon markets would provide, with “forest-carbon credits”, equivalent to a tonne of avoided emissions, being bought to offset industrial countries’ emissions. For the moment the main compulsory market, Europe’s emissions-trading scheme, does not accept forest-carbon credits. But assuming the ETS survives, that is likely to change, and if America ever adopted an equivalent cap-and-trade arrangement, forest carbon would be part of it.

How much is required? No one knows, because no one has ever done anything like this before. Countries generally do not stop deforesting until they industrialise and urbanise, reducing their rural population, or they cut down their forests to such an extent that timber scarcity or environmental disasters lead to urgent protection, as in China. Known as the forest transition, this can be visualised as a curve in the shape of a ski-jump, first sloping down steeply and then turning up gently as the forest creeps back. REDD is an attempt to bridge that dip. Estimates based on the opportunity costs of not felling, which will often make up the bulk of the total, suggest it can be done relatively cheaply. According to the most recent one, by the Informal Working Group on Interim Financing for REDD, an international quango, an investment of $17 billion-30 billion between now and 2015 could cut deforestation by a quarter. That would save 3m hectares of forest, or 7 gigatonnes-worth of carbon emissions a year.

That is why REDD has to be done on a large scale, even if the payments will vary. Brazil, which has been developing REDD for two years, with $1 billion from Norway, has a payment formula that favours Amazon states with high deforestation rates over those with low ones. But, to reward the virtuous, it also takes into account the states’ record on meeting REDD commitments [1].

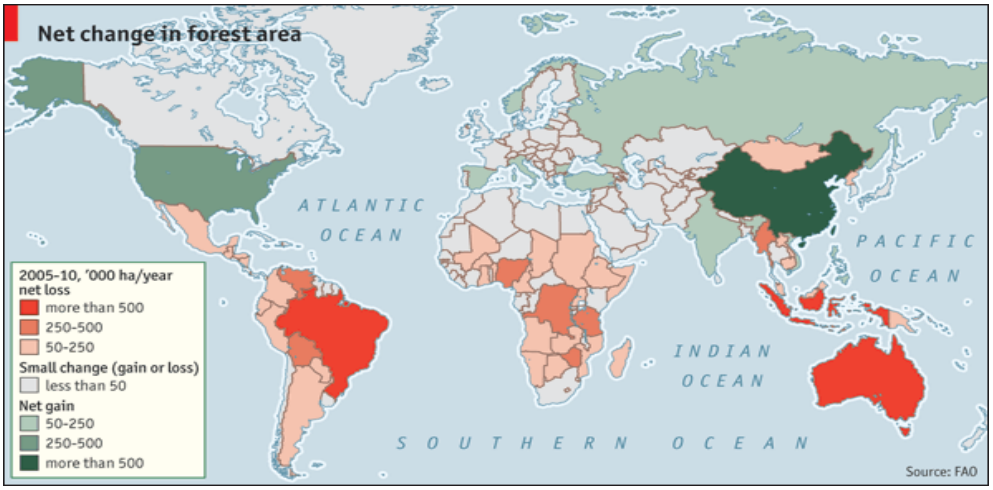

Figure 2: The changes in forested areas around the world between 2005 and 2010
Source: http://proenvironment.ro/promediu/article/view/5576/5195

For now, most REDD projects are small-scale and based on traditional conservation. Given better access to markets for their timber, for example, forest folk are encouraged to harvest less of it. Or they might be supplied with fertiliser and asked to clear less forest for planting maize. These are good ideas. Such projects also slightly mitigate the likelihood that REDD will centralise power. So REDD needs to encourage both national and local conservation efforts. That might mean letting local governments choose from a range of nationally approved conservation measures.

2. REDD'S IMPACT

The Forest Carbon Partnership Facility (FCPF) has strengthened its partnership of countries and stakeholders working together to reduce emissions from deforestation and forest degradation, and foster conservation, sustainable management of forests, and enhancement of forest carbon stocks (REDD+). Significant progress has been made in moving from a planning stage to preparations for REDD+ "Readiness" in forested developing countries.

The 37 tropical and sub-tropical developing countries thus far selected by the Participants Committee of the Forest Carbon Partnership Facility to be assisted in their efforts to reduce emissions from deforestation and Degradation called REDD — by providing value to standing forests.

Many of the FCPF countries began to engage indigenous peoples, ensuring that their needs and realities are taken into consideration in REDD+ Readiness processes [2].

Fig.3. REDD Participant Countries
Source: http://www.un-redd.org/ Last accessed April 1st 2011

Deforestation drivers can be divided into so-called "immediate" and "underpinning" drivers. Demographic factors are population growth and density, urbanization and migration. Economic factors will be the changes in relative prices, economic structures, shifts in demand for commodities, infrastructure development. Technological factors are represented by technological progress to increase agricultural production, while policy and institutional factors are macro-economic policies, tenure rights, corruption, access to loans, education.
Actual cutting of trees is due to "immediate" deforestation drivers and agricultural expansion is one of the most important immediate deforestation drivers. This can be observed by looking at the correlation between the expansion of the agricultural sector in a country and the country's loss in forested area [3]. Estimate that during the '80s and '90s, more than 80 per cent of new agricultural land in the tropics came from intact, natural forests. However, official figures often miss the additions to forest land through fallow land becoming managed, as well as many trees outside forests [4]. Often, a sequence can be observed of first infrastructure development, followed by wood extraction, and finally agricultural expansion occurring. Nevertheless, strong regional differences exist, making general conclusions difficult.

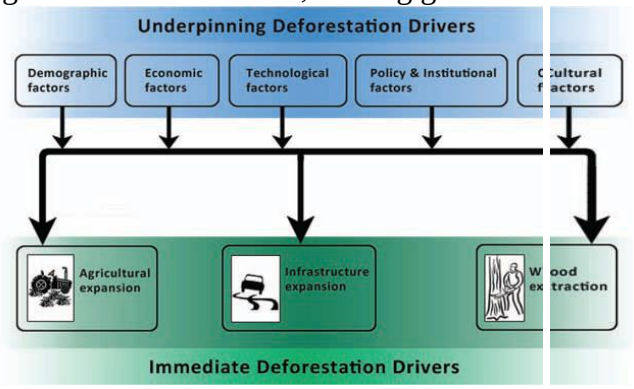

Fig.4. Interaction between two levels of deforestation drivers
Source: http://www.un-redd.org/AboutREDD/tabid/582/Default.aspx Last accessed April 4th 2011

Successful REDD+ policies require tackling different deforestation drivers, both at the forestry as well as the agricultural sector level.
The diagram below presents a new framework for understanding REDD proposals. The framework comprises four basic building blocks as follows:

- ❖ Scope: What is being delivered?
- ❖ Reference Level: How is it being measured?
- ❖ Distribution: Where/to whom does the money go?
- ❖ Financing: Where does the money come from?

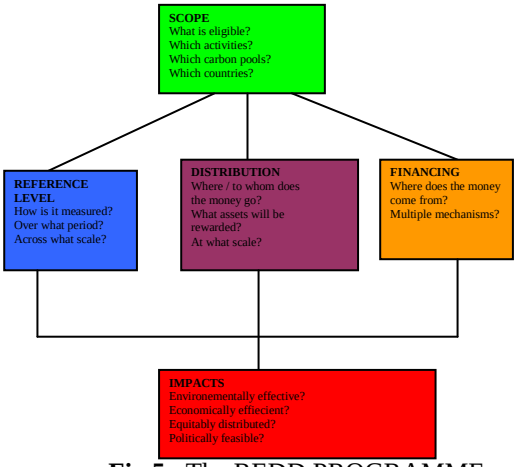

Fig.5. The REDD PROGRAMME
Source: www.forestcarbonpartnership.org/fcp Last accessed March 31st 2011

The overall effectiveness, efficiency and equity of a proposal is determined by its scope, reference level, and financing and distribution mechanisms, as shown in Figure 5. It is helpful to view REDD proposals in this way because it allows us to understand the elements of individual proposals. It also shows us the distribution and evolution of ideas of the combined proposals and enables us to see areas where there are high levels of convergence or divergence.

Some options potentially impose constraints on others. When viewing the proposals as a group, however, there are a number of different 'mix and match' options; for example, the decision to include deforestation and degradation (REDD) or just deforestation (RED) can, broadly speaking, be addressed separately from the question of whether to use a fund or a market.

These quadrants are important within the context of the REDD debate as not all countries will benefit equally under any proposed REDD mechanism depending on the choice of options within the basic building blocks of the framework.

Table 1. A matrix to split countries by their forest cover and historical rate of deforestation

	LOW FOREST COVER (< 50%)	**HIGH FOREST COVER (> 50%)**
HIGH DEFORESTATION RATE (> 0.22%/yr)	**Quadrant I** **e.g. Guatemala, Thailand, Madagascar** **No. of Countries: 44** **Forest area: 28%** **Forest carbon total: 22%** **Deforestation annual 48%**	**Quadrant III** e.g. Papua New Guinea, Brazil, Congo (DR) No. of Countries: 10 Forest area: 39% Forest carbon total: 48% Deforestation annual 47%
LOW DEFORESTATION RATE (< 0.22%/yr)	**Quadrant II** Dominican Republic, Angola, Vietnam No. of Countries:15 Forest area: 20%	**Quadrant IV** e.g. Suriname, Belize, Gabon, No. of Countries: 11 Forest area: 13% Forest carbon total: 18%

	LOW FOREST COVER (< 50%)	HIGH FOREST COVER (> 50%)
	Forest carbon total: 12% Deforestation annual 1%	Deforestation annual 3%

Source: http://www.iucn.org/knowledge/news/focus/2009_redd/

There is overwhelming consensus that a future mechanism for REDD should include both deforestation and forest degradation. A minority of proposals explicitly emphasise that carbon enhancement activities should be considered of equal importance as reduced emissions. Although deforestation and degradation are the immediate priorities, there is widespread recognition that a future REDD mechanism could have a staggered approach, that phases in degradation and/or enhancement activities at later stages. The rationale behind this approach is mainly practical for reasons including: the political feasibility of negotiations under the UNFCCC with a simpler scope; and the need for developing countries to build capacity in carbon accounting practices.

Conclusions

Developing forest monitoring systems for REDD+ also faces unique challenges and opportunities. Early lessons reveal that capacity in many REDD+ countries are weak and will require considerable investments to meet the requirements of a future REDD+ mechanism. Moving forward, the challenge will be to enhance capacity for effective monitoring of forests, leading to policies and forest management approaches that take into account the multiple objectives of REDD+.

Finally, cutting across the issues raised in this publication is the need to manage the expectations of REDD+. What national or local governments hope to gain from REDD+ efforts does not always align with what community groups, farmers, foresters or Indigenous Peoples expect from the scheme. All of these stakeholder groups may share a level of impatience to see the tangible benefits of REDD+, but they often expect different, sometimes unrealistic things from REDD+, at times fuelled by a lack of understanding of the current process and the REDD+ mechanism currently being designed.

REDD+ strategies are also being called upon to solve deep-seated institutional and governance issues. But do governments have the political commitment to deliver on this? REDD+ could act as a catalyst to address larger institutional problems, but it will not alone be able to solve all of the wider development issues facing a country.

Moving forward, REDD+ strategies should be designed within the context of national policies and economic development. Countries will need to strike a balance between ensuring REDD+ reaches out and engages the right sectors, while avoiding putting the full weight of a country's development issues on the shoulders of REDD+ strategies.

If we can address these challenges and expectations, REDD+ holds the promise of conserving forests, providing a model for the engagement of Indigenous Peoples, conserving critical biodiversity and ecosystem services and being an effective part of the climate change solution.

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Implications Knowledge Sharing through E-Collaboration and Communication Tools

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Successful knowledge management in institutions relies heavily on the process of knowledge sharing. Subsequently, the electronic tools of communication are no longer treated as repository within knowledge management but are regarded as collaborative tools in today's knowledge-driven organization. To further strengthen the positive effects of knowledge sharing through e-communication tools, institutions need to identify and enhance those tools that are being successfully acknowledged and implemented by the users. Basically, they must invest on the tools, which are used more comfortably by the users in order to develop the knowledge sharing procedures comprehensively. The goal here is to discuss current research and investigate the most efficient available tools for online knowledge sharing in institutes of higher learning from the lecturers' viewpoint. This study helps to identify the most proper systems for this purpose and to improve them for achieving better outcomes in academic environments. A survey was conducted to acquire data for this study. The questionnaire was designed and distributed through email to more than 700 Lecturers in a Malaysian university, out of which 150 complete responses were collected.
Keywords: *Knowledge sharing, e-collaboration and communication tools*

Introduction

To maintain dominant advantage over competition in today's highly competitive discipline, all available knowledge must be utilized reasonably and practically. Knowledge is the foundation of an academic member's competitive advantage and, ultimately, the primary driver of its value (Luo, 2009).

There are various forms of knowledge management that knowledge sharing has been identified as a major focus area for knowledge management because knowledge sharing provides a link between the level of individual knowledge workers, where knowledge resides, and the level of the institution, where knowledge attains its value for the institution (Ford, 2004; Lindsey, 2003).

One of the problems of local knowledge is the non-availability of mechanisms to access distant knowledge. Knowledge sharing across space and time raises serious problems due to the "localness of knowledge" (Davenport & Prusak, 1998). Sarker asserts that one of the key prerequisites for enabling collaboration and communication among members with diverse backgrounds in terms of domain and levels of expertise is the member's ability to create a sense of mutuality and a shared frame of reference. Clearly this would necessitate a sharing of knowledge from one member to another (Sarker, 2002).

With the development of new technologies, and particularly e-collaboration and communication technology, groups have evolved to encompass new forms of interaction and collaboration. The World Wide Web enables teams to share knowledge and work remotely on a project. E-collaboration tools such as videoconferencing, group support systems (GSSs), distance education tools (e.g., Blackboard, WebCT), and, more commonly, email have evolved exponentially. These electronic modes of communication support mainly decentralized networks of communication. The new metrics of time and distance modify human interactions and, indeed, turn the classic network of face-to-face relationships into a network of virtual relationships. The modification of the nature of human interactions is the

immediate correlate of a faster spread of information and sharing knowledge supported by ICTs (Routkowski, Vogel, Genuchten, Bemelmans & Favier, 2002). Electronic collaboration and communication is the purposeful use of networking and collaboration technologies to support teams in the creation of shared understanding toward joint effect. This concept has been developed through many years of research in how people use various collaborative tools in the purpose of sharing knowledge to achieve their tasks and goals (Fjermestad & Hiltz, 2000).

Knowledge Management

Definition of Knowledge Management (KM) can be explained as, but yet is not bound to, the potent skills and capabilities of every organization to inspect, collect, administer and spread the knowledge of individuals and groups within its department. KM makes sure that the methods implemented to deal with this knowledge is and will consequently improve the overall performance (Ramanujan & Kesh, 2004).

Efficient knowledge management is made up providing accurate information to the right people exactly when they require. Knowledge Management (KM) focuses and supports "not only the know-how of a company, but also the know-where, know-who, know-what, know-when and know-why" (Ramanujan & Kesh, 2004). Knowledge is defined into two categories, namely, explicit and tacit knowledge.

By means of software, hardware and systematic processes, knowledge is acquired and coded from converting implicit experiences and proficiencies to explicit know-how's. Nonetheless, Ramanujan and Kesh 2004, argue that the only method of capturing tacit knowledge is through efficient communicative interaction and sharing. However, according to Lim and Klobas (2000), evolution of modern technology has increasingly elevated the interest and called significant attention toward KM in the world.

The Benefit of Online Knowledge Sharing

It is reasonable to doubt that knowledge can be managed in traditional ways; the tension between knowledge and management is especially serious when it comes to tacit knowledge and the indispensable conditions for sharing tacit knowledge such as informal communities (Li, 2008). However, the sharing of tacit knowledge is especially valuable for collaboration and knowledge creation (Leonard & Sensiper, 1998). Therefore, the more management, the less knowledge to manage, and the more knowledge matters, the less space there is for management to make a difference (Alvesson & Karreman, 2001).

Many researchers have their definitions from their own point of view: Knowledge sharing is an activity which knowledge from one person, team or institution transfer or spread to another team, group or institution (Lee, 2001), Knowledge sharing is the process that managed through various modes of communication and collaboration which distribute knowledge to members in the right time, place and form (D'Aspremont, Bhaffacharya & Grard-Varet, 1998). Now, Knowledge-sharing system is taking on new features such as open, interaction, diversity and creativity (O'Reilly, 2005), Open: because of an open growing atmosphere of knowledge sharing provided by new systems. Interaction: with the appearance of user-centric concept, more and more people participate and interact in the exchange and share of knowledge. Diversity: users can share knowledge in many forms, including recommendation, subscription, evaluation, tag index and so on. Creativity: with the deepening of the relationship between the users and growing the range of exchanges in the system, the tacit knowledge can be explicated to the greatest scope, which will make it possible for knowledge innovation and creation of new knowledge (Zhang, Liu & Xiao, 2008).

Knowledge sharing and communication among institution members, along with structural and

cultural factors, have been emphasized for KM success in communication systems and KM literature (Bock *et al.,* 2005; Ko, Kirsch & King, 2005; Wasko & Faraj, 2005). Today's KM environments consist of members located in different part of the world that communicate via collaboration technologies to share knowledge for completion a project. Much of the studies in this domain have been concentrated on the technological aspects of such environments (Hwang & Kim, 2007).

The significance of knowledge sharing, especially for collaborative and joint ventures has been recognized thus far through previous studies (e.g. Hendriks, 1999; Goodman & Darr, 1998). Many researchers have noted the benefits of knowledge sharing and the negative consequences of knowledge hoarding. Effective knowledge sharing has been shown to lead to an institution's ability to retain the knowledge created by its members as well as their talent and expertise (Teruya, 2003). Knowledge sharing can increase efficiency and save on work hours by ensuring that an institution learns from past experience and avoid duplication of effort (Weiss, 1999). Knowledge sharing in universities between lecturers avoid that some lecturers in different departments perform the same investigation, which their other colleagues in other departments or universities may benefit from. For example, one lecturer is going to apply for some funding by preparing a detailed proposal. Other lecturers, who are willing to apply for the same funding, may need his experience and findings in the preparation of their proposals and could actually benefit from the information he already has. This phenomenon can save a lot of time and energy if appropriate methods of sharing knowledge being implemented; thus resulting in exploitation of the knowledge, which is commonly needed by multiple entities.

Several advantages are incorporated into using e-collaboration technologies both in government organizations and private institutions. Saul and Zulu (1994) cautiously mention electronic collaboration technology tools as a means to an end instead of an end in itself. The e-collaboration technology tools and systems are useful in assisting government and private entities in bringing solutions to the problems and thus can be justified according to the advantages and benefits that they result in and not only just for the sake of it.

Cost reduction as well as the better service quality is among the most obvious reasons that follow up the implementation of e-collaboration systems, benefitting the incorporation using them. The institutional capacity will be effectively improved, not to mention the enhanced decision-making processes and boosted inner efficiency. Another rather important parameter, which will be effectively improved, is the transparency within the institution that will eventually benefit overall performance. Upon the implementation of these tools, taking advantage of advanced technologies, access to information will become much easier throughout the facility. Ushering toward the real time processing of data. The cheaper and more efficient access to the larger amount of information with larger and more advanced computers is good enough reasons to add to the number of pro technology followers (Gichoya, 2005).

E-Collaboration Systems for Knowledge Sharing

According to Davenport and Prusak, one of the problems of local knowledge is the non-availability of mechanisms to access distant knowledge. Knowledge transfer across space and time raises serious problems due to the "localness of knowledge" (Davenport & Prusak, 1998).

The main weakness of traditional association is that it is predominately dependent on infrequent face-to-face communication and thus is not encouraging to stimulating incorporation, especially when parties are located in different part of the world (Cheng, Love, Standing & Gharavi, 2006). Other than making use of traditional collaboration, an association

should place emphasis on electronic collaboration (e-collaboration), which is referred to as collaboration through internet and online systems among a group of associated parties, particularly the use of communication and collaboration technologies to initiate and assist the sharing of resources especially across the world in order to improve associates' success (Gharavi, Love & Cheng, 2004; Lee-Kelley, Crossman & Cannings, 2004; Rutkowski *et al*., 2002). From a technical viewpoint, it can require the use of web-based technologies and group decision support systems to electronically link associated parties (including supply chain) to exchange information and knowledge to achieve a desired outcome (Fliedner, 2003).

An online collaborative association can be expected to facilitate the acquisition of knowledge from associated parties and initiate the sharing of resources, strengthening the procedure of an informal association. The mutual resources can be intangible such as knowledge, information, ideas, and know-how. Electronic collaboration technologies can put forth this shared perception to work in an e-environment, speeding up and systemizing the reciprocated process. Yet, the institution that possesses the idea or knowledge (the source firm) may not like to share with others when it perceives this as a threat or unresolved risk. In many cases, institutions prefer to maintain solid boundaries toward others. This is what Williamson (1985) referred to as arms-length associations, which under extreme circumstances can become adversarial and result in repel ling each other further away (Cheng *et al.*, 2006).
Virtual communication is the fundamental application of networking technologies to supply the academia with innovative and resourceful formation and dissemination of knowledge toward collaborative practices. Higher educational institutions would require employing techniques to capture and capitalize the divergent and personalized intellectual properties, which are distributed across the world. This being said, these are the electronic communication and collaboration tools that have made harnessing intelligence and knowledge through time and space quite possible (Qureshi & Keen, 2005).
There are many studies that each one focused on a specific e-collaboration and communication tools such as; Dennis, Hayes and Daniels (1999), focused their analysis on e-collaboration systems normally called group decision support systems, which usually are employed to support groups meeting in the same room and at the same time for knowledge sharing. Those systems were found to reduce meeting time, especially in meetings involving knowledge sharing such as, brainstorming and decision-making tasks. Also Kock in 2005, focused on asynchronous e-collaboration and communication tools, which support group work where members share knowledge at different times and from different places.
Choice of electronic communication and collaboration tools thus, depends on the amount of information required, the time requirement for information (how fast it is required), effectiveness of communication required and the efficiency of communication required (Bajwa et al., 2003). Lecturers with remote physical distance from each other, have employed a range of communication tools (e.g. Groupware applications comprising chat, discussion list and application sharing capabilities, e-mail) that support the sharing of knowledge across remote sites, evidence from recent research suggests that the challenges involved in sharing knowledge across globally distributed university academics are still widespread, and that breakdowns in sharing knowledge do occur. Indeed, technical solutions are important, but are not sufficient (Kotlarsky & Oshri, 2005).

Systems and Influenced factors for Knowledge Sharing
The initial step in this study was to explore to see how much of a lecturer's routine academic interactions depend upon computers and Internet on a daily basis. According to the conducted survey, more than 50% of their normal daily tasks are performed online or in other words

"virtually". Additionally, the available tools at the university were investigated and the proper systems, from the lecturer's point of view, were identified. In Table 1 the preferred tools, chosen by lectures, for sharing their knowledge is displayed.

Table 1. shows the most proper tools for knowledge sharing from respondent's viewpoint. This question of survey has multiple check answer, meaning that each respondent could choose multiple answers. Each lecturer chose multiple answers for most proper tools for the purpose of online knowledge sharing.

For this question in survey as multiple answer question that each respondent could choose more than one answer, from 150 respondents, 129 respondents (86%) chose the email as most proper tool for online knowledge sharing, also 95 respondents (63%) from 150 chose the online group discussion, 80 of them (53%) from 150 total respondents chose instant messaging (IM), 50 respondents (33%) stated portal technologies as proper tool for knowledge sharing, 48 respondents (32%) voted for video conferencing, 43 respondents (29%) chose share net, 26 respondents from 150 respondents voted for audio conferencing and web conferencing and 24 respondents (16%) chose digital white board as suitable system for online knowledge sharing.

Tools	N	Minimum	Maximum	Mean	Percent
Video Conferencing	48	1	5	2.04	32%
Audio Conferencing	26	1	5	2.25	17%
Share Net	43	1	5	2.31	29%
Digital White Board	24	1	5	1.90	16%
Instant Messaging	80	1	5	3.44	53%
Web Conferencing	26	1	5	2.33	17%
Online Group Discussion	95	1	5	3.14	63%
Portal Technologies	50	1	5	3.11	33%
Email	129	3	5	4.76	86%

Table 1: Descriptive Statistics for Available technologies

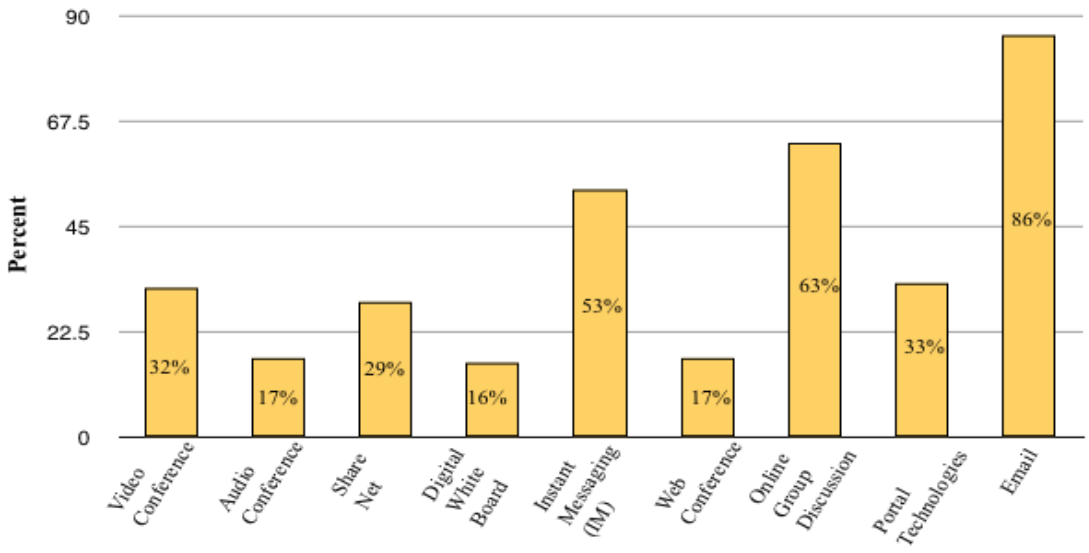

Figure 1: The Most Proper Tools For Online Knowledge Sharing

Conclusion and Future Research

Today users prefer to use virtual networks to share and transfer knowledge. They feel more comfortable with some systems; for instance, in this study we realized that university lecturers would rather to share their knowledge via Email. This selection may be based on several

reasons that the most important of them can be due to its user friendliness and users' trust in this tool.

Future research should focus on the influencing factors causing the users to prefer Email, online group discussion, portal technology and IM; and the reasons why lecturers feel more comfortable practicing these tools should be examined by the regression analysis.

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Japan and Libya: Different Impacts on World Markets

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The human suffering and dislocation caused by the recent events in Libya and Japan, whether due to violent conflict or natural disaster, is both broad and widely felt. While our thoughts focus mainly on prospects for bringing resolution and relief to those affected, both Libya and Japan, each in its own way, are vital links in the global energy supply chain. The disruption to normal economic and productive activities in both countries carries worldwide consequences.
Keywords: *oil prices, oil stock. crisis, energy markets, economy.*

Overview

The case of Japan, a country hit by a natural disaster and Libya's current civil war must be distinguished entirely. At the same time, both series of events have a significant impact on global energy markets, and call for a proper response. Although the military operations in Libya have only damaged a few pipelines and storage facilities, the North African country's oil production has dropped to a third of its pre-war level. Oilexport has stopped completely, which mostly affects Italy, France, Spain, and Germany. Still, this outage has not caused any major problem, as Saudi Arabia has increased its output, which will supply the missing oil. The situation is similar in natural gas import. Italy and Spain are the two biggest buyers of Libyan natural gas in Europe, but the two Member States can import the missing natural gas from othersuppliers.

Owing to the earthquake and tsunami in Japan, the capacity of oil refineries has decreased by one-third, and the country is unable to access some of its reserves. Yet, experts say the Far Eastern energy market is capable of making up for the missing sources. Even a combined effect of the two events, it wouldn't jeopardise the global balance of oil markets and oil supply to the European Union. In addition, the Union's reserves would be enough for over 120 days, in case of an emergency.

Overall, "The events in North Africa have not affected the energy supply of EU countries, and other sources of these states have been sufficiently supplied." However, oil prices have been badly affected. Since the beginning of 2011, the world market price of crude oil has increased by about 20 per cent, which has been noticed by European consumers.

The US, Europe, Asia, Libya and Oil

While the events in both Libya and Japan represent a continuing thread of uncertainty, there is also a clear contrast stemming from the two countries' differing roles in the global energy system. Libya's importance to world oil markets derives primarily from its role as North Africa's second largest producer of crude oil and liquids (1.8 million barrels per day (bbl/d) in 2010), and as a net exporter of high quality crude oil, mostly -- though not exclusively -- to the European market. Japan looms large mostly as a consumer of crude oil and refined products and other energy inputs. Libya is a supply story, where as Japan is mainly about demand. The questions in Libya are how long the fighting will last, whether the production infrastructure will suffer any lasting damage, and what type of energy landscape will emerge from the confrontation. So far, buyers of Libyan oil - for the most part, European refiners - have been able to muddle through and do without. But it is becoming increasingly clear that this is more than a passing crisis, and the market will need to make adjustments for the longer term. Japan is an industrial behemoth and the world's third largest oil consuming economy

behind the United States and China, with 2010 estimated oil consumption averaging 4.4 million bbl/d. While the earthquakes and tsunami have spared its industrial heartland, the nation's entire economy has been affected - as have been, to an extent still unclear, the many economies that depend on it for inputs or as an outlet for their own production. Initial assessments suggest the market impact will likely be two-tiered. First, the disaster will cause a temporary reduction in Japanese oil demand, partly offsetting the Libyan supply shortfall. While market attention has been focused on the nuclear power generation infrastructure, the scope of the damage is broader and includes thermal power generation, refineries, factories, ports, roads, and other transport logistics that directly affect the use and movement of oil. In the longer term, however, market expectations are that the Japanese disaster will cause oil demand to rebound in order to support reconstruction efforts when they get underway and make up for some part of the loss in nuclear power generation. What is less clear is the timing of the transition from phase one to phase two of the quake's aftermath - i.e., the expected bottom in Japanese oil demand. The recent supply disruption in Libya and the subsequent near-term disruption of oil demand in Japan have sent crude oil prices on a roller coaster. On February 14, just before major demonstrations began in Libya, the spot price of Brent stood at $103 per barrel. In the wake of the Libyan uprising, by March 2, Brent increased almost $14 per barrel, before retreating almost $6 per barrel on the back of the Japanese earthquake and tsunami, only to regain some of the lost ground more recently as the Libyan confrontation intensified. But the impact on U.S. retail product prices has been more subdued and nuanced. Gasoline prices generally reflect movements in crude oil prices, but over the last two weeks, national gasoline retail prices have remained relatively flat. This is because it takes some time for the full effect of crude oil price changes to be reflected in retail gasoline prices. Typically, a $10 increase in the price of a barrel of crude oil translates into an increase of about 24 cents in the retail price of a gallon of gasoline over the course of about eight weeks. About half of that increase generally takes place within two weeks. Thus, a portion of the sharp crude oil price increase that happened weeks ago in the wake of the first Middle East headlines is still working its way through retail prices. Thanks to that lag, the remaining upward price effect of the Middle East news has been largely offset by the more recent downward impact of the Japanese disaster and expectations of reduced demand, resulting in flat retail prices. If there were no significant changes in current crude oil prices, our gasoline pricing pass-through analysis suggests that over the next several weeks, we would see no further pressure from crude oil prices. However, we would expect to see price increases due to seasonal changes such as the shift from winter to more expensive summer-grade gasoline.

Retail Prices		**Change From Last**	
03/28/11		**Week**	**Year**
Gasoline	3.596	↑0.034	↑0.798
Diesel Fuel	3.932	↑0.025	↑0.993

Table 1. Changes in retail prices

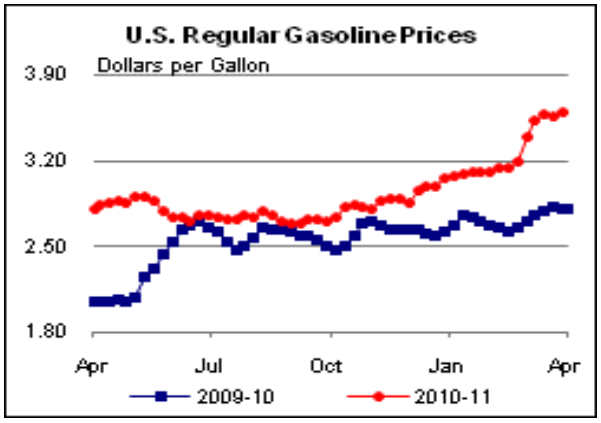

Fig. 1. Retail Prices(Dollars per gallon)

Futures Prices		**Change From Last**	
03/25/11		**Week**	**Year**
Crude Oil	105.40	↑4.33	↑25.40
Gasoline	3.045	↑0.096	↑0.838
Heating Oil	3.055	↑0.031	↑0.985
***Note:** Crude Oil Price in Dollars per Barrel.			

Table 2. Changes in future prices

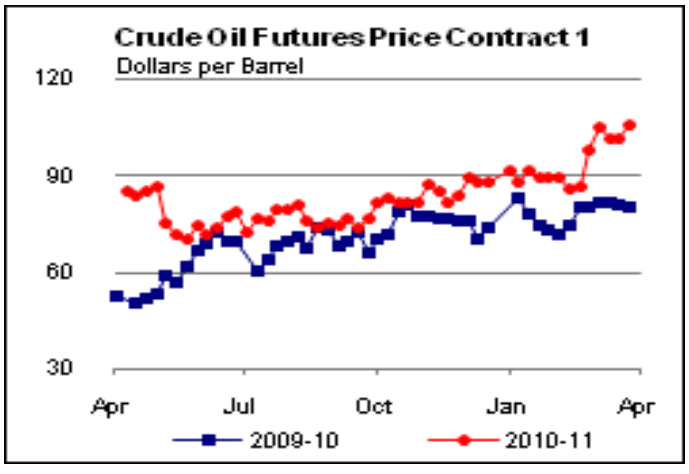

Fig. 2. Futures Prices(Dollars per Gallon)

Price pressures resulting from events in Libya and elsewhere are occurring in the context of a recent recovery in U.S. gasoline fundamentals. Monthly data show gasoline product supplied increased year-on-year in eight of the last nine months of 2010, averaging 93,600 barrels per day higher than 2009 over that period. While severe winter weather may have temporarily affected gasoline demand this winter (for additional discussion of this point, see the February 24 installment of Today in Energy), this may not signal a reversal of the recent trend.

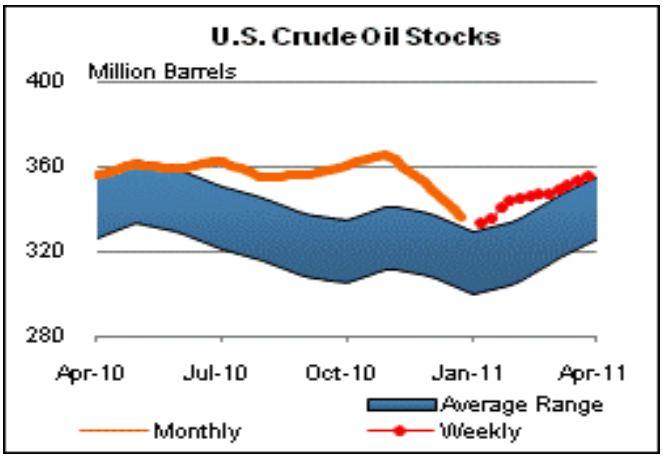

Fig. 3. U.S. Crude Oil Stocks

Stocks		Change From Last	
03/25/11		Week	Year
Crude Oil	355.7	↑2.9	↑1.5
Gasoline	217.0	↓-2.7	↓-7.8
Distillate	153.3	↑0.7	↑8.7
Propane	26.895	↓-0.106	↑1.278

Table 3. Stocks Changes

The U.S. average retail price of regular gasoline decreased half of a cent versus last week, the first decline since January 31, 2011. At $3.56 per gallon, gasoline is $0.74 per gallon higher than last year at this time. The biggest decrease was on the Gulf Coast, where the gasoline price fell almost two cents. The gasoline average on the East Coast lost a penny on the week and the Midwest price was down just under a cent. Moving in the other direction, the West Coast average moved up about two cents. In the Rocky Mountains, the price was almost three cents higher than last week. Despite this increase, the gasoline price in the Rocky Mountains remained the lowest in the country at $3.39 per gallon. The most expensive gasoline among the major regions is on the West Coast, where the average retail price is $3.86 per gallon. Diesel prices fell for the first time in sixteen weeks, albeit a small decrease, with the national average down just a tenth of a cent from last week. At $3.91 per gallon, the diesel price is $0.96 per gallon higher than last year at this time. Diesel prices were mixed across the country, with prices falling less than a penny on the East Coast, Gulf Coast, and in the Midwest. Prices in the Rocky Mountains were up almost four cents. The average on the West Coast was also up on the week, adding over a penny to last week's price. By early afternoon in Europe, benchmark crude for April delivery was down 16 cents to $102.17 a barrel in electronic trading on the New York Mercantile Exchange. The April contract, which expires Tuesday, rose $1.26 to settle at $102.33 on Monday.

In London, Brent crude for May delivery was down 25 cents at $114.71 a barrel on the ICE futures exchange. Fierce fighting during the last month has halted most of Libya's 1.6 million barrels a day of crude production, and investors are concerned coalition military intervention on the side of rebels could prolong the shutdown of oil output from the OPEC nation. Goldman Sachs estimates that about $10 has been added to the price of oil from speculation that political unrest in the Middle East could spread to other countries and disrupt oil supplies "These developments suggest that the $10 a barrel risk premium may prove too modest," Goldman Sachs said in a report. Over the medium term, high oil prices could slow economic growth which in turn would reduce demand for oil, lowering the price, the bank said. Other analysts, however, said the loss of Libyan oil output was already included in the current price range and, coupled with expectations of softer demand from Japan, could see prices slip. "Short-term, we suspect that the crude oil market is somewhat overextended here, as the fighting in Libya will lose its ability to spark the market higher," said Edward Meir at MF Global in New York. "For all practical purposes, investors have reconciled themselves with the fact not much oil will be flowing out of Libya anytime soon. Oil markets will likely not be that fazed by developments there, as Yemen is a relatively small producer, with production of about 300,000 barrels per day. Markets are also on the watch for fresh figures on U.S. oil

stockpiles. Data for the week ending March 18 is expected to show a build of 2 million barrels in crude oil stocks and a draw of 2 million barrels in gasoline stocks. Data for the week ending March 18 is expected to show a build of 2 million barrels in crude oil stocks and a draw of 2 million barrels in gasoline stocks. Benchmark crude for April delivery was down 14 cents to $102.19 a barrel at late afternoon Singapore time in electronic trading on the New York Mercantile Exchange. The April contract, which expires Tuesday, rose $1.26 to settle at $102.33 on Monday.

In London, Brent crude for May delivery was down 55 cents at $114.41 a barrel on the ICE futures exchange. Fierce fighting during the last month has halted most of Libya's 1.6 million barrels a day of crude production, and investors are concerned coalition military intervention on the side of rebels could prolong the shutdown of oil output from the OPEC nation. In other Nymex trading for April contracts, heating oil fell 0.8 cent to $3.04 a gallon and gasoline slid 1.1 cents to $2.99 a gallon. Natural gas gained 0.1 cent to $4.17 per 1,000 cubic feet. Goldman Sachs estimates that about $10 has been added to the price of oil from speculation that political unrest in the Middle East could spread to other countries and disrupt oil supplies. "These developments suggest that the $10 a barrel risk premium may prove too modest," Goldman Sachs said in a report. Over the medium term, high oil prices could slow economic growth which in turn would reduce demand for oil, lowering the price, the bank said. European shares edged higher on Friday after the Group of Seven nations' intervention to weaken the yen and Libya's move to halt military action helped boost investor sentiment.

One factor capping gains was China's decision to raise banks' required reserves again, the latest instalment in its monetary tightening cycle that many had thought would be put on hold after Japan's devastating earthquake. The pan-European FTSEurofirst 300 index of top shares rose 0.2 percent to close at 1,088.82 points. Volume was high, at more than 165 percent of the 90-day average for the index, boosted by "quadruple witching". Over the week, the index fell 3 percent, a fourth week of declines, the longest losing streak in more than a year. On the civil unrest in North Africa, some analysts and politicians were sceptical about Libya's cease-fire lasting. But strategists remained upbeat about the prospects for equities. European equities are trading well below historic p/e averages. The pullback is a buying opportunity. The world continues to recover. The policy move that we saw by China today is part of a move to control inflation, which is healthy. The auto sector was among those helping the index to recover some losses from earlier in the week. Daimler, Peugeot and Renault gained between 1.5 and 3.1 percent. Vestas, the world's largest wind turbine maker, gained 4.3 percent. The company is to supply turbines to a Mexican wind energy development with total capacity of 396 megawatts, the customers said on Friday. In an effort to restore confidence to the markets, the G7 stepped in to weaken the Japanese yen, which had soared to a record. But some traders said the market could succumb to further weakness in the weeks ahead as Japan's nuclear crisis is far from over. Japan's nuclear crisis continued to have a specific impact on some European companies. French engineering company Schneider , for example, gained 3.2 percent, as traders said the company would benefit from a push towards greater energy efficiency after the Japanese disaster. Chemicals heavyweight BASF was also among the gainers, up 1.7 percent, after JP Morgan upgraded it to "overweight" from "neutral." On the downside, Germany's E.ON fell 1.6 percent after the company took its Unterwese reactor offline under Tuesday's government decree in the light of events in Japan. Equity valuations on Thomson Reuters Datastream showed the STOXX Europe 600 carrying a forward price-to-earnings ratio of 10.8, below a 10-year average of 13.6. Japan's nuclear threat and its massive destruction of life and property will definitely slow down the country's economy. The Japan crisis has already impacted automobile and air plane industries around the globe and the

electronics market is set to be hit long term as well, since as many as 40% of world's electronic components is produced in Japan. But in spite of such concerns, the hopes of growth are still bright. The recovery stage in Japan, a country boasting of superb technology and adversity to re-rise, will see a increase in demand and hence a positive rise in price. This stage would also create a lot of buying opportunities, especially given the fact that mergers and acquisitions are relatively high in numbers in the Japanese market. With Japan's economy contributing to 6% of the global economy, there lies ample opportunity for the investors and the market to grow. Libya, on the other hand, does pose a threat to an increase in oil prices although the country contribute to only a mere 2% of the global oil output. The risk lies in the fact that Libyan revolt can set the fuse of revolution in other oil producing countries of the Arab world and Africa. With the USA and the UK allying to provide military support to the rebels of Libya, the winds of revolution can very well lead to disruptions in oil rich Saudi Arabia, Ogaden of Ethiopia, Yemen, Bahrain, Tunisia, Iraq, etc. Especially an unrest in Saudi Arabia contributing to about 11% of global oil output and a major supplier to U.S can accelerate oil prices throughout the world. Even with this risk, there should not actually be any big concerns with the overall growth and the maximum damage probably would be investors keeping away from oil and focusing on other entities till the unrest are over. The US who has joined these revolts now with its military support to Libya, is a major market of arms and ammunition in the world. All the revolts in the Arab world and Africa will provide immense growth and opportunities to this arms market of US and provide an easy entrance to the oil fields of these regions too. The only thing US would need to understand is that by sending its troops to the Arab world to join the battles, it is taking a big risk on its military manpower. The human resource of a country after all, the US has to realize, should be treated as bigger assets than potential markets of arms and oil.

	2010
World Total	1354.182
Saudi Arabia	262.400
Canada	175.214
Iran	137.620
Iraq	115.000
Kuwait	104.000
Venezuela	99.377
United Arab Emirates	97.800
Russia	60.000
Libya	44.270
Nigeria	37.200
Kazakhstan	30.000
Qatar	25.410
China	20.350
United States	19.121

Table 4. World Proved Crude Oil Reserves

Considering that in 2009, the U.S. Energy Information Administration predicted that world oil reserves had "peaked" and that over the next several decades supplies would drop and prices would rise. There is some controversy over the study, but there is general agreement that easy-to-get petroleum sources are getting harder and harder to find. Approximately 65 percent of the world's remaining oil reserves are in the Middle East, as well as considerable amounts of natural gas. Iran has the second greatest reserves of gas outside of Russia. The U.S.—with the largest economy in the world—uses around 21 million barrels of oil per day (bpd). Since

it produces only 7.5 million bpd domestically, it imports two thirds of its oil. Its major sources are (in descending order) Canada, Mexico, Saudi Arabia, Nigeria, Venezuela, and Iraq.
China—the world's number two economy—uses about 8 million bpd, a demand that is projected to rise to 11.3 million bpd by 2015. Since it only produces 3.7 million bpd domestically, it too relies on imported oil. It main suppliers are (in descending order) Saudi Arabia, Iran, Angola, Russia, Oman and Sudan. It is estimated that, sometime between 2030 and 2050, China will surpass the U.S. and become the world's number one economy—provided that it can secure enough energy for its growing industrial needs. Insuring access to oil and gas is a major focus of Chinese foreign policy, particularly because Beijing is nervous about how it currently obtains its supplies. Some 80 percent are transported by sea, and all of those routes involve choke points currently controlled by the U.S. The U.S. Fifth Fleet based in Bahrain controls the Hormutz Straits, through which Saudi Arabian, Iranian, and Omanian oil passes. The Fifth also dominates the straits of Bab el-Mandab that control access to the Red Sea and through which Sudan's oil is shipped into the Indian Ocean. In addition the Malacca Straits between Sumatra and the Malay Peninsula is the major transit point for oil going to China. The U.S. Seventh Fleet controls that choke point. China's nervousness over its sea-based oil supplies is one of the major reasons behind Beijing's crash naval program, its construction of ports in South and Southeast Asia, and its efforts to build land-based pipelines from Russia, Central Asia, and Pakistan.

The Chinese are also trying to cope with the fact that Iran, its second largest supplier of oil and gas, is currently under international sanctions that have reduced production and cut into China's supplies. Beijing has invested upwards of $120 billion to upgrade Iran's energy industry, but recently has had to cutback investments because its banks could end up being sanctioned for helping out the Teheran regime. The Chinese are not the slightest bit cynical about why the U.S. is bombing Libya and not challenging Bahrain and Yemen: Bahrain hosts the U.S. Fifth Fleet, and Yemen's port of Aden dominates the Red Sea. China can play chess.
As for Libya. The U.S. doesn't get oil from Libya, but its allies in Europe do. And the current crisis is African Command's (Africom) coming out party. Up to now the record of the spanking new military formation has been less than impressive. First, no one would host it, because the U.S. military in Africa makes the locals nervous. So it is still based in Germany. Then it coordinated the absolutely disastrous Ethiopian invasion of Somalia that ended up turning most of the country over to the extremist Shabab.
But Libya is a fresh slate for Africom, and that is making the Chinese even more nervous (and explains why they have been so cranky about civilian casualties in Libya). When Africom was in its infancy it war-gamed a military intervention in the Gulf of Guinea in case "civil disturbances: caused any disruptions in oil supplies. Angola, China's other major African supplier, is in the Gulf of Guinea. It hardly seems like a coincidence that, at the very moment that African oil supplies become important, the U.S. creates a new military formation for the continent. Africom is currently advising and training the military forces of 53 countries in the region.
Okay, so here you are in Beijing. Your industries are clamoring for power. Media in the United States reflect a growing hostility toward you, with headlines in newspapers reading, "The Chinese Tiger Shows Its Claws," and U.S. politicians routinely blame you for America's economic problems. And the U.S. has basically puts its thumb on each one of your oil and gas sources. Nobody is cutting off any supplies at this point, but the implied threat is always there.

In end, it is not so much about oil and gas itself, as the control of energy. Any country that corners energy supplies in the coming decades will be in a powerful position to dictate a

whole lot of things to the rest of the world. That's not cynicism, its cold-blooded calculation. And right now a lot of people in the Middle East are paying the price of the ticket. After the Arab World with winds of revolution and Japan with destruction of tsunami and earthquake, it is now turn for Europe to face the risk of economic turmoil. With the fall of the Portugal Government two days back amidst growing financial debt of the country, the adverse effect is already visible with the value of the Euro falling. There are already anticipations that with its political uncertainty, Portugal might seek a financial rescue, something like a heavy bailout like Greece and Ireland did last year. In fact the Portuguese borrowing costs has hit new highs on Friday, 25th March after its sovereign ratings were cut following the government collapse. The rates are seen rising further with the European Summit held in Brussels on Thursday and Friday not showing much keen interest in helping their fellow member country.

To make matters worse for Portugal and Europe, legal experts of the country are debating and opining that a caretaker government (after the resignation of Portugal's Government) does not have the power to request an international bailout if its economic woes deepens. After this statement rocked the European Union, Portugal is trying to showcase that they might not need a Economic Rescue. With Portuguese Prime Minister Jose Socrates having resigned on Wednesday after parliament rejected his government's latest plan to help Portugal avoid having to seek an international bailout, the conflicting news that a care taker Government can not seek international bailout has raised huge concerns in the European economy. Interestingly Socrates was suggesting that Portugal does not need any rescue fund from the world and can survive with proper financing of the market. However, the country's parliament especially Pedro Passos Coelho, the leader of Portugal's opposition Social Democrats party had rejected the idea altogether. With the Yen already falling and Arab world continuing to get worse, the US dollar value is found rising higher and higher. Although the Stock experts around the world are having a hard time figuring out the severity of the Portuguese unrest to global economy, the news is found to be booster for merchants around the world, who deals with the US or in dollars. It can well be expected that the value of dollar will increase further with Yen and Euro not looking in good shape at all.

Tensions in Libya Create Positive Push in Precious Metals Market

While the relationship between the uprising in Libya and the precious metals market may not be obvious, the correlation is simple: Libya is one of the world's largest suppliers of oil, an incredibly lucrative and turbulent commodity for investors. Due to the civilian rebellion against Libya's tyrannical leader Muammar Gaddafi, fear over an interruption in Libyan oil flows has caused the price of crude oil to spike. On the morning of March 17, 2011, oil futures sold at nearly $100. With increased prices in crude oil, investors are looking for safe havens that present greater stability. As a result, the Libyan crisis is driving the gold and silver markets to record high prices**.** The London Fix for gold and silver on March 16, 2011 closed at $1,402 and $34.73 per ounce, respectively. Since February, the market has spiked as high as $1,437.50 per ounce for gold, while silver hit a record 31-year high at $36.60 per ounce.

While Libya poses a threat to negatively impact the supply of oil, Japan can be viewed as a negative shock to demand. This has caused a reverse effect in market prices.

Conclusions

The extended paralysis with regard to the nuclear issue and the colossal damage sustained in the Japan, suggests that Japan will be partially absent from the oil markets for some time to come. The market continued to fall from the changes in global dynamics due to Japan's earthquake and tsunami. Bahrain and Saudi Arabia worked together as the Middle East – North Africa crisis worsened. Libya gained more attention as the United Nations declared a resolution against it imposing a no fly zone as well as sanctions. The Libyan crisis stepped up in focus as the U.S. and coalition forces intervened in the conflict there. Markets may continue to react to new global events over domestic issues for a few more weeks. We have been watching some global currencies and early market openings overseas for insights.

The entire economic world, of late, has been concerned about the magnitude of impact the current crisis situation in Libya and Japan would have in global business and growth. Economist and experts across different boundaries are engaged in debates of severity of risks, solutions and feasibility of various assets for investment. However, even in this crucial time, it can well be assumed and predicted that there would actually be little impact to long term global investments and growth as a whole, in spite of the many risks posed by the global situation.

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Interplays Between Environmentalism And Polluting Industries

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The seriousness of environmental processes such as climate change, biodiversity loss or resources depletion becomes obvious through studies that require advanced expertise. Due to these characteristic environmental issues remained for a long time beyond public perception, but also beyond the economic cycle. Once some of the ecological unbalances were embodied in acute events with direct health impact, environmental issues entered the political agenda at different levels. The finding of solutions for environmental problems depends also on the capacity of the society to create intervention means that allow the expression of ecological unbalances in forms that are perceivable for both population, and economic systems.

Keywords*: polluting industries, environmentalism, sustainable development, stakeholder management*

Polluting industries are considered responsible for numerous ecological unbalances that significantly contribute to global environmental problems, but also to local ecological crises. For a long while, the economic dimension and the geopolitical interests were the most important considering for the substantiation of decisions in this sector. Today environmental exigencies came in to shape for oil industry too, by the intermediation of nongovernmental organizations and of governmental environmental policies.

1. Industry relevant forms of environmental exigencies. It is relevant to clarify the necessity to identify the factors that express environmental exigencies. This need is determined by the fact that ecological changes, respectively ecological effects, do not influence directly the decisions because ecological effects do not generate economical consequences or do not affect costs. For instance, if an enterprise impacts on environment by waste water discharge, the finding that the neighborhood area is polluted will not lead to the decision that will reduce the contamination level of waste waters, respectively that will modify the technological process toward a reduction of pollutants' amount.

In the literature this external effect that does not influence the activity of the enterprise is called externality. Another formula is that externalities occurs then the activity of an enterprise does not depend exclusively on the factors that can be controlled by it, but also on other factors that are not comprised in the sphere of its decisional activity.

The existence of environmental externalities could be explained departing from the economical theory, respectively how prices measure the social value of goods. There are many cases then the price system does not fulfill the functions assigned to it by the perfect competition theory and then private costs and advantages are different from social costs and advantages. In these situations the consumption or production decision of an economic agent influences the satisfaction or profit level of other agents and the market mechanisms fail to evaluate these influences and to gratify or punish such influences. Externalities make inappropriate the guidance of price system toward socially optimal decisions and therefore generate various forms of inefficiency in the organization of production and consumption activities [1].

The worsening of environmental externalities, respectively the increased number of persons and enterprises that are affected, and also the increase in the seriousness of the effects pushed

the environmental issues on the public agenda, triggering governmental and non-governmental organizations implication in a concerted effort of reducing environmental externalities.

The last decades witnessed both the aggravation of environmental problems and the increasing of environmental awareness. Consequently actions toward prevention and mitigation recorded a powerful diversification. Meanwhile along with the advancement of social development, common problems approach, including environmental protection, passed from the central initiative of governmental authorities, which are representative according to the democratic principle, to the initiative of civic society, which has a voluntary pattern and is based on implication and awareness.

Government performs environmental protection through formulating a specific policy, designing the tools needed for its implementation, and controlling the process of enforcement. Civic society performs environmental protection through a variety of forms, but the most common is the concerted action of nongovernmental organizations. The tools to be used are different. Thus, government could enforce new standards and rules as long as it could provide a solid enough argument that demonstrates their contribution to the common objective. Nongovernmental organizations express a common conviction of a certain part of the population and pursue the solution of the problem. In order to formulate any kind of conviction it is necessary to be aware of the existence of certain facts.

2. Activism – a coherent social reaction to common problems. Contemporary society is confronted with more and more numerous and more and more complex problems. Such diversity is expressed in the diversification of actions that address these problems. The whole range of actions that envisage finding solutions for common problems is defined as activism. Solutions are considered changes that will eliminate the problem or will allow the avoidance of its effect.

Activism is featured by forms of manifestation, the role to be played in order to reach the solution to the problem, the level of social involvement, the level of institutionalization, and the nature of the problems.

The forms of activism are much diversified. Among the most commons, there are open letters, campaigns, boycotts, marches, strikes, and blogs. The role to be played by an activist could be the agent of change, rebel, reformer, and citizen (box 1).

Box 1 Activist roles

The *agent of change* has the role of facilitating the process of the creation of a new social order and of a political consensus through favoring of positive alternatives toward a paradigm change. In order to fulfill this role, the activist needs to obtain public support. Therefore such activists are expected to be involved in education, awareness rising and to be as objective as possible. *Rebels* pursue the promotion of democracy and the inclusion of problems on social agenda. In fact, rebels envisage preventing or delaying a project or an event. They are highly effective, although such role could be used only as part of a wider strategy. The *reformer* pursues official recognition of its objectives by their inclusion in governmental policies. As methods to perform this role there are used commission audiences, lobbying, trials, political campaigns, and referendums. The *citizen* guards the social values of the democracy: non-violence, justice, freedom, and life veneration. The ones who choose this role will try to demonstrate that power yielder do not respect the social values mentioned above.

Source: [2]

Activism could be performed by an individual or by a group who share the same values or is sensitive to the same problems. Although individual activism is still practiced, it proved to be too weak, especially in terms of legitimating. Thus, in case that an individual notice a problem

that is relevant for the community, it will be difficult to demonstrate this relevance, since there is only one person who notices it. On the other hand, a wider social involvement could be tracked back to an individual in many cases.
The institutionalization could divide activism in ad-hoc associations, based on common interest in a certain situations, and in institutionalized forms of activism that pursue their objectives in a coherent manner and evolve along with the transformation of the addressed problems.
According to the nature of the problems to be addressed, activism could be divided in various categories. Activism in the field of environmental protection is also called environmentalism.
Nongovernmental organizations are the most common forms to express activism in a coherent and effective manner. Although they are present for more than two centuries a proper scientific approach was performed only lately. Based on the available information, nongovernmental organizations have as characteristics the followings [3]:

- to be established formally, meaning that the organization has to prove a certain organizational and institutional capacity, expressed in regular meetings, internal rules, procedures;
- to be private, meaning that it has to be separated institutionally from the public administration. This not exclude the use of governmental funds;
- to respect the principle of profit non-distribution. The organization could obtain profit, but this will not be distributed to its members of directors. Instead it will be used in order to pursue the organizations declared objectives;
- to be autonomous, meaning that the activity of the organization will not be subordinated to any public or private institution;
- to be voluntary, in terms that the organization has to promote voluntary actions and to use volunteers;
- to be non-missionary in sense that do not practice proselytism.

Nongovernmental organizations (NGOs) are considered the representatives of the third sector in an approach that divides organizations according to their ownership in public and private organizations. Other studies nominate them as intermediate organizations, given their position among the private and public ones.
NGOs address various public problems and their field of action became very diverse. After the First World War social assistance was the main activity addressed by volunteers in a coherent manner and it was based especially on the implication of women for providing medical services and fund rising. With the evolution and increased complexity of the social life, and also the availability of volunteer labor, NGOs diversified their activities envisaging a wide range of issues, such as fundamental research, artistic activities, education, and more recently environmental protection.

3. Strategies, activities, achievements, and evolution of ENGOs. Environmental protection proved to be a prolific field for the development of NGOs. This could be explained by several reasons. Thus, environmental problems are beyond individual observations, and therefore they cannot be expressed without specific expertise. The NGOs could provide the institutional support for a valid monitoring and/or research for the demonstration of causal relations. Further, environmental policy tools have important drawbacks that allow major pollutants to escape legal or fiscal measures. The NGOs could shed light on such situations and speed up corporate changes. Last, but not least, important governmental and intergovernmental funds became available for different environmental priorities. Environmental NGOs (ENGOs) could provide the expertise needed for efficient and effective use of these funds. In addition, the fund rising performed by NGOs could be also very helpful especially for problems that

require continuous and substantial funding, which cannot be provided within the short inter-electoral phases.

According to [4], the strategies adopted by ENGOs could be grouped in three categories:

- governmental policy assistance – actions are projected and performed in order to influence policy making at governmental level. It could be regarded as an acceleration of the information flow for a better reflection of realities;
- information manager – environmental information is obtained through monitoring or is organized for a better understanding of environmental processes, targeting a wider public participation in decision making;
- behavior example – initiation and deployment of environmental protection campaigns, targeting both solution of certain problems, but also awareness rising and education (waste elimination, afforestation, housing).

Such strategies are transformed in a set of objectives that underpins the activities of ENGOs. Table 1 present examples of objectives sets for two ENGOs: Salvati Delta (Save the Delta) and Terra Mileniul III (Terra Millennium III).

Table 1. ENGOs objectives

Save the Delta	Terra Millennium III
Promoting environment friendly public policies through advocacy	Promoting citizens, especially youth, participation in decision making and environmental problems solving
Promoting an environmentally responsible public attitude	Collaborating with similar foreign organizations in social, educational, and environmental projects
Protecting the Delta and the Danube through concrete activities	Collaboration with local and/or regional public authorities toward the protection of natural ecosystems
Development of corporate environmentally responsible attitude	Encouraging technological transfer and research
Monitoring of activities with environmental impact	Promoting legislation and legal proposals for environmental protection and connected fields
Education and information of Romanian public	Education of children and youth
Promoting community development projects	Preventing the negative environmental and social impact of public or private projects
Mediation among stakeholders in the Danube Delta	Promoting local, regional, and global environmental protection programs
Development of an integrated corporate social responsibility activity as main means for fund rising	
Development of environmental expertise within the organization	
Strengthening the organization's position on the Romanian NGOs market	

In order to achieve the above mentioned objectives, ENGOs could perform a wide range of activities. A list of them is provided in box 2.

Box 2. Activities performed by Save the Danube

- Collaboration with other ENGOs
- Salvation of the natural ecosystems of the Danube Delta, preservation of the area, and its inclusion in the international tourism circuits
- Initiation and participation in public debates within publications and TV broadcasts
- Awareness rising and encouragement of public for the participation in salvation and ecological restoration programs in the Danube Delta
- Supporting the modernization of obsolete industrial, agricultural or other types of installations that pollute the Danube Delta

- Popularization of Danube Delta protection and restoration ideas and concepts
- Attraction of financial resources for the development of protection programs in the Danube Delta
- Editing of brochures, leaflets, revues, and other publication materials
- Encouragement and supporting of independent research focused on the protection of the Danube Delta
- Granting of scholarships and funding of research projects and documentation stages
- Organization of workshops, seminars and scientific conferences
- Initiation and development of domestic and international programs
- Collaboration with public authorities from Romania and with international institutions

Today there are a large number of ENGOs that deploy activities worldwide. Among the most prominent ones it could be mentioned Greenpeace, organization that pursued several companies to change their behavior according to criteria that go beyond economical rationality. Recent examples of such achievements are the followings [5]:

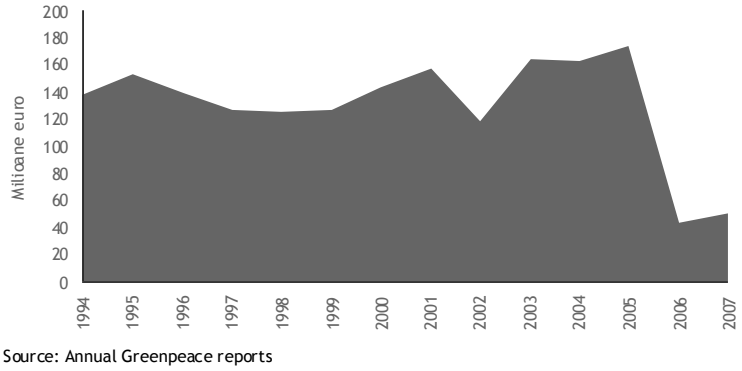
- *McDonald´s* drops the use of chicken which is feeding on soybean cropped in Amazonia. Departing from the establishment of the causal link between soybean cropping and deforestation in Amazonia the organization launched the Report Eating up the Amazon. This report revealed how McDonald´s and other organizations contribute to deforestation;
- *Hewlett Packard initiated a plan to decrease the use of highly toxic chemical compounds*. We note the fact that the way of presenting this information is aimed to build a favorable/unfavorable image for companies of that industry;
- *Implementing a conservative regime for western Canadian forests* – after a long struggle in a campaign that took more than ten years it was accomplished an agreement among governmental authorities, local authorities, logging companies and other stakeholders that bound the exploitation and secure the habitat conservation.

Table 2. Evolution of ENGOs members´ number in USA

Organization		**Number of members (thousands)**				
Name	**Year of establishment**	**1960**	**1970**	**1980**	**1990**	**1998**
Sierra Club	1892	15	113	181	630	555
National Audubon Society	1905	32	148	400	600	575
National Parks and Conservation Association	1919	15	45	31	100	500
Wilderness Society	1935	10	54	45	350	350
National Wildlife Federation	1936	-	540	818	997	4 000
Environmental Defense	1967	-	11	46	200	300
Natural Resource Defense Council	1970	-	-	40	150	400
Total		**72**	**911**	**1 561**	**3 027**	**6 680**

Source: [6]

The role to be played by ENGOs could be considered as increasing since indicators that measure this contribution (number of members, incomes) record an upward trend. Thus, the number of members in the most important ENGOs in USA increased almost 100 times in three decades, from around 72 thousands in 1960 to almost 7 million in 1998 (table 2).



Source: Annual Greenpeace reports

Fig.1. Evolution of Greenpeace total incomes (million euro)

Greenpeace, one of the largest and most active ENGO, has a high and increasing level of incomes within 1994-2005 (fig.1). Increases in incomes are not so spectacular as the evolution of members and after 2005 an important reduction is also noticeable. These patterns could be explained by the careful approach to fund rising, meaning that the organization struggle to maintain its independence. In fact, this intention is clearly stated in the annual report.

The increase in the size of environmental organizations as both number of members and amount of funds managed represents for companies an argument strong enough to consider in decision making this criteria – the eENGOs' opinion against certain decision. However, it is not clear in that extent can be made a distinction among companies that take in consideration the possible intervention of ENGOs and those that do not take that in account. In cases than ecological consequences are less obvious the role of ENGOs is more important.

Another observation that could be useful is related to the moment in which ENGOs come to action. Generally, ENGOs intervention could be interpreted as reactive. The convincing power is based mainly on real ecological consequences that are presented in such a way those consumers or companies could identify the chain of causes and the place occupied by them in it.

Conclusions

Environmental exigencies could be defined as a set of requirements to be addressed by an enterprise in order to reduce the ecological effects of its activity. Obviously, there is a generic conceptual level for approaching this issue, but from a managerial perspective it is necessary that the need of environmental protection to be expressed in concrete requirements to be addressed by certain decisions. Therefore, environmental exigencies are represented by factors that influence the enterprise to take decisions toward the reduction of ecological effects, or, in other words, to improve its environmental (ecological) performance.

Environmental exigencies are transformed in industry relevant factors by governmental policies and environmentalism or environmental activism. These forms of expression are not discrete. Environmentalism could target to achieve its objectives by influencing the governmental policy making. This observation would allow considering that environmental policy is for a certain extent an expression of environmentalism.

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Web Technologies And Databases

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The database means a collection of many types of occurrences of logical records containing relationships between records and data elementary aggregates. Management System database (DBMS) - a set of programs for creating and operation of a database. Theoretically, any relational DBMS can be used to store data needed by a Web server. Basically, it was observed that the simple DBMS such as Fox Pro or Access is not suitable for Web sites that are used intensively. For large-scale Web applications need high performance DBMS's able to run multiple applications simultaneously.
Hyper Text Markup Language (HTML) is used to create hypertext documents for web pages. The purpose of HTML is rather the presentation of information – paragraphs, fonts, tables, than semantics description document.

Keywords: *internet, informations, web, dates*

Online database

Placing on the Internet collections of complex information involves storing them in the database which can then be accessed online by users. The term database can easily be deceiving because in reality system that makes visible this database on the Internet is far more complex.
Any database that provides information to users of Internet services should be stored on a server that is visible on the Internet and to use a scripting technology. The information in the database is extracted according to the specific needs of user and then formatted so that they can be properly displayed. For example, when someone writes the word "Romania" on Google search engine. com system will request the search form will search the database of items that the word "Romania" after which will format the results so that they can be displayed by a browser such as Internet Explorer. A general view of server architecture is provided in the scheme in the following figure.

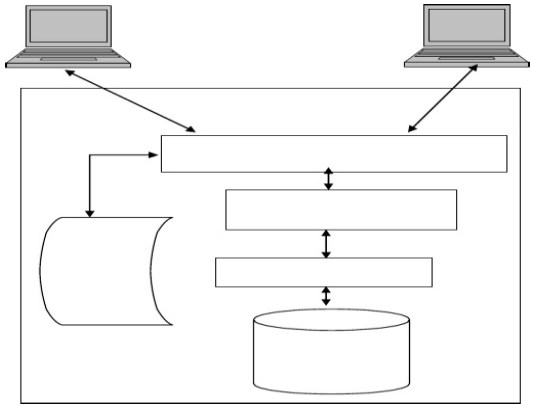

Fig. 1 Architecture of Web sereverului support scripting

As seen in Figure system architecture is structured on several levels. When the user wishes to access external information located on the server, it will use an Internet navigator to connect to it. Accessing the server is done via a URL.

The main elements which enter into the composition architecture are server: Web server, the parser scripts type server-side, the drivers for access to the database, the database and collections of files. The Web server that is a complex application responsible for communication with external Web browsers. Basically the Web server listens to the HTTP port (default 80) of the machine on which it is installed. When a request arrives on this port, the Web Server interprets to see what information has been requested. Information requested from the server are actually files that reside on your hard disk. The Web server is to wrap these files so that they can be sent ahead. The required Files can be divided into two categories:

- files that contain static information. They shall be sent forth to browsers without any kind of change. Static Files are usually images, HTML files, movies, documents offered for download, movies, Flash animations, etc.
- scriptures. These are practices of small programs that run by a intepretor, by sending to the Web server only the result of their execution. The main role of these scripts is to dynamically generate documents type. The technique of dynamic generation of HTML documents makes it possible to access the databases on the Internet .
- the role of the parser scripts type server-side has been described above. Where a script needs the records from a database that will interact with it through a driver. He will run in an application-level SQL database. Following the execution of this application I return a cursor. Had this cursor is generates HTML code that once reached a navigator determines the display of the data you want.

Drivers for access to the database are meant interaction between interpreter of scriptures and database itself. They are very specialised software tools that usually are not visible to the programmer nor any user. The drivers are important because the choice of their flawed significantly affect system performance.
Main SGBD sites used in Web applications are: mySQL, SQL Server and Oracle. Collections of files are static information which are sent to users on demand.
It is important to note that ASP scripts are designed to produce HTML pages that you send to Web browsers to display. The major Benefit of ASP scripts is that permit the production of dynamic HTML code according to the concrete needs. For example, you can easily get the records from a table to a database data Sourceand may wrap in HTML format can be displayed in a browser.

Although they were conceived as General Web application, the overwhelming majority of applications THE ASP scripts are related to working with databases on-line.
In order to achieve THE ASP scripts must have the following:

- a computer on which to set up a Web server (for example, Internet Information Server and Personal Web Server); any Windows system can be easily configured to support ASP scripts;
- a text editor; You can use Notepad or specialized editors such as FrontPage or Macromedia Dreamweaver 2007.
- a SGBD for creating and updating of the database used by means of scripts;
- a Web browser to see the result of script execution;

Considering that THE ASP scripts are usually made to work with databases is needed and a database to run the script. It must be on the same computer with the script, preferably in the same directory.

Database acces

ActiveX Data Objects (ADO) is a technology that allows accessing databases from Web pages. Basically, ADO can be used for writing scripts compact for connecting to data sources from the Web pages or to sources of OLE DB-compatible data; ADO is also utilizează,şi like databases, spreadsheets tabular, sequential data files, or e-mail directories.

OLE DB is a programmatic interface to system level that provides the standard set of COM components for managing databases. Accessing COM components is carried out with the object model using VBScript or ADOşi JScript scripts can access the databases of Web applications.
ADO is also used for opening databases compatible ODBC (Open DataBase Connectivity).

For creating an application with the access to the database, ADO will require an identification of the data source. This is done by adding character to connect unuişir, consisting of arguments separated with unşir ";" for example, the name of the supplier of the data source (data source provider) and the location of the data source. ADO use characters for login in order to identify THE OLE DB provider (provider).

The provider is a component that represents the data source, he also available to your application information about the format of the data. For compatibility, the OLE DB provider for ODBC supports the syntax of the string for the connection. The string of characters for login that relates a source database on a remote computer, can contain security information (user name, password). To prevent access to data sources creates Windows accounts for the computers that will access data sources, with the appropriate NTFS permissions to files.

For the establishment and the handling of the connections between the application and data sources compatible OLE DB or ODBC-compatible databases, ADO provides the Connection object. He has properties and methods allowing the opening and closing the logins, databases, respectively the formulation of queries to update the data.
To establish a connection to a database, you will create an instance of the Connection object.

For example, the following script create Connection and open a connection.

<% ' create the object connection Set cnn = Server. CreateObject (' ADODB. Connection ") '

Open a connection using the string for connecting to OLE DB .
cnn. Open "Provider-Microsoft Jet OLEDB... 4.0; Data Source =
c:\MarketData\ProjectedSales.mdb "%>

The string for the connection does not contain any spaces before or after the equal sign (=) In the previous example, Open method of Connection object refers to the character string for the connection.

Security is enforced by the security subsystem of the SGBD system, which checks whether all applications access to satisfy the constraints of security (or authorities, most likely) stored in the system catalog.

Each authority from a discretionary scheme has a name, a lot of privileges (RETRIVE, INSERT, etc.), a variable-by-appropriate relationship (i.e., the data for which you apply the authority) and a lot of users. These authorities can be used to provide control elements dependent on value, independent of the summary and statistical value, dependent on context. Audit Collection can be used to record attempts of violation of security .

Web technologies: HTML, ASP, PHP

HTML is a form of markup text oriented to the presentation of documents on a single page, using a specialized rendering software, called HTML user agent, the best example of such software as your Web browser. HTML provides the means by which the contents of a document can be annotated with various types of metadata and indications of playback. Indications of play can range from minor text decorations, such as specifying the fact that a specific word or it must be stressed that an image should be introduced, up to sophisticated scripts, images, maps and forms. The metadata may include information about the title and author of the document, the structural information about how the document is divided into different segments, paragraphs, lists, headings, etc. and crucial information that enable the document can be linked to other documents to form such hyperlinks (or web site).

HTML is a text format designed to be read and edited using a simple text editor. However writing and modifying pages in this way requires solid knowledge of HTML and is time consuming. Graphical Editors (WYSIWYG) such as Macromedia Dreamweaver, Adobe GoLive, Microsoft FrontPage or allow webpages to be treated like documetele Word. You can generate HTML directly using the technologies of server-side encoding such as PHP, JSP or ASP. Many applications like content management systems, wikis and forums web generates HTML pages.
HTML is also used in e-mail. Most e-mail applications use a built-in HTML editor for composing e-mails and a presentation engine of e-mails of this type. Using HTML e-mail is a controversial topic and many mailing lists they intentionally blocked.

Active Server Pages (ASP) , also known under the names of Classic ASP or ASP Classic, was the first language programming server-side Microsoft's for generating dynamic Web pages. Originally was released as an add-on for IIS by Windows NT 4.0 Option Pack, after which it was included as a free component in Windows Server, starting with the version of Windows 2000 Server). Currently was passed its version of ASP.NET.
ASP.NET is a Microsoft technology for creating Web applications and Web services. Asp.net is the successor of ASP (Active Server Pages) and benefit from the power of the .NET development platform, and the set of tools offered by the development environment of Visual Studio .NET application "".

Some of the advantages of the ASP .NET are:

- ASP .NET has a broad set of components, based on XML, thus providing a model object oriented programming (OOP).

- ASP .NET runs code compiled, which increases performance of the web aplication. Source code can be separated into two files, one for the executable code, and another one for the content of the page (HTML code and the text of the page).
- .NET is compatible with over 20 different languages, the most used as C # and Visual Basic.

PHP is a programming language. PHP Name comes from the English language and is a recursive acronym: Php: Hypertext Preprocessor. Used originally to produce dynamic Web pages, is widely used in the development of pages and web applications. It uses mainly incorporated into the HTML code, but starting from version 4.3.0, you can also use the "command line" (CLI), allowing for the creation of independent applications. It is one of the most important programming languages open-source web and server-side, with versions available for most web servers and for all operating systems. According to the statistics is installed over 20 million websites and 1 million Web servers .

Conclusions

A database, sometimes called "data bank" is a way of storing information and data on external media (storage device), with the possibility to light and their rapid retrieval.
Typically a database is stored in one or more files. Databases are handled by systems management databases.

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