

The Promotion of CSR in Business Organizations : What Contribution to the Environment in Algeria?

تعزيز المسؤولية الاجتماعية للشركات في منظمات الأعمال: ما هي المساهمة في البيئة في الجزائر؟

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Abstract:

Corporate social responsibility (CSR) is about the protection of the environment and the community, as well as the management of risks. This paper draws attention to the contribution of CSR to the protection of the environment and the reduction of the pollution risks. It examines whether the involvement of the business sector can abate the threats of environmental deterioration in Algeria. It further seeks to know how CSR could allocate resources to positively and effectively impact the use of valuable resources, control pollution risks, and sustain resource management. This paper aims to contribute to the formulation of a new developmental approach capable of combating environmental degradation, containing future pollution risks, and ensuring human security in Algeria.

Keywords: Algeria , Business organizations , CSR , Environmental degradation , Human Security

JEL Classification: M14

ملخص

تتعلق المسؤولية الاجتماعية للشركات بحماية البيئة والمجتمع، فضلاً عن إدارة المخاطر. توجّه هذه الورقة البحثية الانتباه إلى مساهمة المسؤولية التلوث، وتدرس ما إذا كان إشراك قطاع الأعمال يمكن أن يخفف من مخاطر التدهور البيئي في الجزائر. كما تسعى إلى معرفة كيف يمكن للمسؤولية الاجتماعية للشركات أن تخصص الموارد من أجل التأثير الإيجابي والفعال على استخدام الموارد الثمينة، ومراقبة مخاطر التلوث، وإدارة الموارد للحفاظ عليها. تهدف هذه الورقة البحثية إلى الإسهام في صياغة مقاربة إنمائية جديدة قادرة على مكافحة التدهور البيئي واحتواء مخاطر التلوث في المستقبل وضمان السلامة الإنسانية في الجزائر.

الكلمات المفتاحية: الجزائر ، منظمات الأعمال ، المسؤولية الاجتماعية للشركات ، التدهور البيئي ، السلامة البشرية

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1. Introduction

Growing demand for natural resources and the problem of resource scarcity have become of central interests to governments and businesses worldwide. Today, population growth, urbanization, climate change, poor resource management, and soil contamination are severely affecting the environment and endangering community livelihoods. Likewise, Algeria is currently facing many challenges in the environmental sphere and in the exploitation of natural resources. People in the country have come to realize that a safe environment is vital for economic and social development, as well as for business management.

Environmental degradation in Algeria is essentially of natural origins, but has been accelerated by human activities during the last decades. While it is caused by soil degradation, desertification, droughts, floods, and water scarcity (Tabet-Aoul 2011), it has been aggravated by agricultural runoffs and domestic and industrial discharges. Indeed, pollution is presently deteriorating the environment and affecting human life in the country. The engineering of a new developmental approach appears to be crucial to reduce social vulnerabilities, secure resources, and ensure human security. But this does not seem to be solely the job of governments. In an already ecologically fragile Maghreb region, a collaborative action is urgently required in Algeria to address resource scarcity and environmental degradation. Any action to protect natural resources in Algeria seems to necessitate the involvement of both private and public businesses as they are using scarce resources and are partly responsible for environmental deterioration.

Indeed, business activities are currently causing serious damages to water, soil and air, and are affecting both biodiversity and human health. Business organizations in Algeria need to redirect their action to strike a balance between business development on the one hand, and the protection of the environment on the other. Indeed, the risks emanating from industrial activities can be devastating. Corporate social responsibility (CSR) is about risk management. It deals with various industrial risks with the purpose of minimizing or eliminating the negative impact of industrial operations on both community and environment. This paper draws attention to the contribution of CSR to the protection of the environment and the reduction of pollution risks. It examines whether the involvement of the business sector can abate the threats of water deterioration in Algeria. It further seeks to know how CSR could allocate resources to positively and effectively impact the use of valuable resources, control pollution risks and sustain resource management. This paper aims to contribute to the formulation of a new developmental approach capable of combating environmental degradation, containing future pollution risks, and ensuring human security in Algeria.

2. Business Organization, the Environment and Society

Business organizations are part of the community in which they operate. They use the community's human and material resources (inputs) to generate products (outputs) which the community needs. While doing so, they search to maximize economic earnings in order to enhance their competitiveness and ensure their permanent existence. However, while

carrying out their operations, business organizations may negatively affect the environment and workers' health and safety. More significantly, they generate numerous negative impacts on both environment and society (air and water pollution, soil degradation, violations of human rights at work, and generating harms to surrounding communities...).

Therefore, it is vital for business organizations to cooperate with public authorities, scientific community, and people to mitigate the negative effects of their activities. Their management strategies need to embrace the environmental and social dimension and share both the social return and cost with the community. Thus, environmental and social responsibility of business organizations is a matter of self-preservation, and an integral part of sound resource management practices (Skye n.d). In this sense, the contribution to the protection of the environment is beneficial to businesses as it enables them to face the criticism and pressures emanating from the community (Chauveau and Rosé 2003) and respond to stakeholders' interests (individuals or groups whose interests could be affected by the decisions and activities of the organization).

3. Corporate Social Responsibility (CSR): Meaning and Aspects

There is no clear-cut definition of CSR. It still derives its strength, acceptance and deployment of the voluntary nature. CSR depends very much on market, the scope and forms of the business activity, and the human and financial capabilities of the corporation. The World Bank views CSR as “the commitment of business to contribute to sustainable economic development, working with employees, their families, the local community and society at large to improve quality of life, in ways that are both good for business and good for development” (Petkoski and Twose 2003). The World Business Council for Sustainable Development (WBCSD 1998) also defines CSR as “the continuing commitment by business to behave ethically and contribute to economic development while improving the quality of life of the workforce and their families, as well as of the local community and society at large”. The European Commission further views CSR as “a concept whereby companies integrate social and environmental concerns in their business operations and in their interaction with their stakeholders on a voluntary basis” (European Commission 2002).

Although they differ, CSR definitions have some common elements:

- Commitment to contribute to sustainable development.
- Voluntary character of social responsibility, social responsibility becomes part of the organizational culture and it is not subject to legal or contractual obligations.
- Consensus on the important role that could be played by the business organization in the community, being one of its components.
- Commitment by the business organization to make social responsibility one of the pillars of its strategy.
- Transparency in information gathering and diffusion inside and outside the business organization, allowing authentication and demarcation of the good practices of the business organization and keep track of the progress taking place.

- Ability to involve other parties in the operations of the business organization and to have relations with many members of the community in which it operates (such as civil society organizations, medias, labor unions, local authorities, etc.).

In fact, CSR is more than philanthropy giving and volunteering. Since the early 1950s, calls have constantly emerged regarding the necessity of business organizations' commitment to the community in which they operate instead of focusing only on making the maximum possible profits. Today, businesses play a basic developmental role, and philanthropy giving for development has become an integral part of their activities. The business management became responsible not only for the economic efficiency of corporate's activities expressed by profitability index, but also for what it should play towards environmental and social concerns arising from the performance of those activities. In other words, business organizations have become obliged to assume the environmental and social responsibility, together with the economic responsibility. The aim is to help achieve sustainable development. Table 1 clearly illustrates the economic responsibilities model on the one hand, and the environmental and social responsibilities model on the other.

Protecting the environment from the negative impact of operations is a core responsibility. Besides their legal obligations, which differ according to region and country, business organizations are seen to have a broad responsibility to protect the physical environment throughout their supply chains. They should commit to continuous improvements in eco-efficiency (doing more with less), and managing the full lifecycle of their products. In this respect, the WBCSD (1998) noted in its dialogue session that business organizations should be: proactive on the environment and seek solutions that can lead to competitive advantage; and responsible and leading organizations pave the way for others to follow suit.

Table 1. Economic and social models of organizations

Economic responsibility model	Social responsibility model
- Production - Exploitation of natural resources - Increase of production - Internal decisions based on market conditions - Economic return (profit) - Interest of the organization, the manager, or owners - A limited role for the government	- Quality of life - Conservation of natural resources - Increase of productivity and efficiency - Decisions based on market conditions under the community's control - Balance between economic returns and social returns - Interest of the organization and the community - An active role for the government

4. CSR-Associated Concepts

The concept of CSR is connected to a set of concepts and issues. They all relate to environmental issues, such as resource use and preservation. This paper focuses on five basic terms: sustainability, triple bottom line, ISO 26000, eco-efficiency, and ISO 14046.

4.1 Sustainability

CSR is tightly linked to sustainability which essentially relates to human use and protection of natural resources. Sustainability has been given a wide range of definitions but most of them focus on two basic aspects: the aspect of time and the aspect of human activity (Zwahlen 1995). Such definitions have been put forward by a number of scholars in the 1980s and 1990s like Allen (1988) Pearce (1988) , Måler (1991), Pearce and Atkinson (1993), and Titilola (1994). In their views, sustainability is the use of resources either for a very long time or forever. Viederman (1993) discussed ‘sustainable society’ rather than ‘sustainable use’, without excluding the aspects of time and human activities in his definition of sustainability. Jowsey and Kellett (1995) further raised the ‘ratio of demand to resource base’ and ‘environmental impact’. From his side, Zwahlen (1995) spoke strictly of the ‘sustainability of the use of resources’ rather than the ‘sustainability of a resource’. Thus, the aspect of ‘resource use’ is a basic element in the definitions which have been given to sustainability.

Sustainability has also been advanced as improving the quality of life without increasing the use of natural resources in order to sustain Earth’s capacities for regeneration and waste absorption. In this context, Elkington (1997) noted that a sustainable society needs to meet three conditions: its rates of use of renewable resources should not exceed their rates of regeneration; its rates of use of non-renewable resources should not exceed the rate at which sustainable renewable substitutes are developed; and its rates of pollution or emission should not exceed the assimilative capacity of the environment. Hart and Milstein (2003) further defined sustainability as the expectations of improving the social and environmental performance of the present generation without comprising the ability of future generations to meet their social and environmental needs. Thus, the notion of sustainability raises the problem of human over-exploitation of resources, and stresses the need for the protection of natural resources and ecosystems.

Later on, the concept of ‘sustainability’ became attached to further environmental aspects in the wider range of human activities, such as energy production, flood control, irrigation, land reclamation, urbanization, and industrialization. The concepts ‘reduce, reuse and recycle’ become the basis of sustainability. ‘Reduce’ means reducing the use of resources by providing energy efficient systems and water conservation measures. ‘Reuse’ signifies reusing resources in order to restrict demand on Earth’s resources. ‘Recycle’ is the use of recycled materials with the purpose of decreasing new resource demand and protecting the environment (UNCRD 2011).

4.2 Triple bottom line

The triple bottom line (TBL) is a concept composed of three Ps (profit, people, and planet). *People* relates to fair labor practices, to the community and region where the business operates. *Planet* refers to sustainable environmental practices. *Profit* is the economic value

generated by the business organization while carrying out its operations (Kanj and Chopra 2010). This concept was first put forward by John Elkington in 1994 (Elkington 1994, 2004). It essentially aims to measure the financial, social, and environmental performance of the business organization over a period of time (Alhaddi 2015). In fact, TBL seeks to measure the overall cost of the performance of the business organization and its success through the use of the economic, social, and environmental aspects. Thus, TBL seeks to evaluate CSR. The more a business organization measures social and environmental impact, the more it becomes responsible towards the community and the environment in which it operates.

However, it should be noted that the three 'Ps' do not have the same measures. While it is easy to measure the bottom line and the flows of money (profit), it is difficult to measure the 'planet' and 'people' in terms of cash. So, environmental variables (planet) can be better measured by natural resources and their sustainability (e.g., energy consumption, water consumption, air quality, and land use). As to the social dimensions of TBL (people), a number of measurements can be used, such as education, equity, access to social resources, health and well-being, quality of life, and social capital (Slaper and Hall 2011). Today, TBL is common practice in non-profit and for-profit organizations, as well as in governmental institutions. The aim is to evaluate their performance and impact on both the community and the environment. Nestlé is a case in point. It is not only interested in the creation of value for its shareholder, but also in the creation of value for society. It believes that healthy and sustainable economic activity creates jobs. Nestlé equally focuses on water as it is particularly important in its production and marketing activities (supplies of agricultural raw materials and manufacturing processes, as well as for consumers to prepare its products) (Bulcke 2012).

4.3 ISO 26000:2010

ISO 26000 has been introduced in 2010 and today it is viewed as the international standard of CSR. It explains the meaning and application of CSR at the level of business organization and introduces its seven principles. These are (ISO 2010):

- **Accountability:** an organization should be accountable for its impacts on society, the economy, and the environment.
- **Transparency:** an organization should be transparent in its decisions and activities that impact on society and the environment.
- **Ethical behaviour:** an organization should behave ethically. In other words, behaviour should be based on the values of honesty, equity, and integrity.
- **Respect for stakeholders' interests:** an organization should respect, consider and respond to the interests of its stakeholders.
- **Respect for the rule of law:** an organization should accept that respect for the rule of law is mandatory.

- **Respect for international norms of behaviour:** an organization should respect international norms of behaviour, while adhering to the principle of respect for the rule of law.
- **Respect for human rights:** an organization should respect human rights and recognize both their importance and their universality.

While addressing the seven principles of CSR, ISO 26000 further puts forward four principal clauses (ISO 2014):

- **The environment:** prevention of pollution, sustainable resource use, climate change mitigation and adaptation, protection of the environment, biodiversity, and restoration of natural habitats.
- **Fair operating practices:** promoting social responsibility in the value chain.
- **Consumer issues:** protecting consumers' health and safety, and sustainable consumption.
- **Community involvement and development.**

Therefore, the aim of ISO 26000 is to assist organizations to carry out operations in a socially responsible manner. In so doing, business organizations contribute to the spreading of the benefits of CSR and the promotion of sustainable development.

4.4 Eco-efficiency

The concept of eco-efficiency was first put forward in 1990 by Schaltegger and Sturm as a “business link to sustainable development” (cited in ESCAP 2009). It was seen as a practical tool to change the way humans produce and consume resources. As far as business organizations are concerned, eco-efficiency was intended to be a basic approach to promote economic and environmental benefits and to contribute to sustainable development. This can be achieved through more efficient uses of resources and lower pollution (ESCAP 2009). In this context, the WBCSD recommends for business organization to adopt this approach to be able to reduce consumption and impacts on the natural environment, as well as to increase the value of products. Thus, the aim of eco-efficiency is to reduce the use of resources to achieve both economic and environmental benefits. However, this aim can be reached only if this approach is adopted at both the micro and macro levels.

With the purpose of promoting the use of this approach, the United Nations Economic and Social Commission for Asia and the Pacific (ESCAP) developed a set of eco-efficiency indicators to measure the progress of eco-efficiency in a country's economy. These eco-efficiency indicators are intended to respond to the different challenges of sustainability. These challenges include (ESCAP 2009):

1. Impacts of economic activity on the environment (e.g. resource consumption, pollution emissions, waste).
2. Effects of resource productivity on the economy (e.g. economic efficiency).
3. Impacts of environmental degradation on economic productivity (e.g. reduction in absorptive capacity, loss of forest cover).

4. Effects of environmental improvement on society (e.g. congestion costs, improvement in wellbeing, social costs).

Thus, the concept of eco-efficiency correlates economic benefits and environmental performance. It particularly seeks to reduce both the use of resources and the release of toxic materials. It aims to enhance the quality and value of products and to reduce their environmental impact.

4.5 ISO 14046:2014

Established in 2014 by the International Organization for Standardization, ISO 14046 is the new corporate water footprint. It can be defined as “the total volume of freshwater that is used directly and indirectly to run the business” (Hoekstra 2011). It specifies the principles, requirements, and guidelines of assessing and reporting water footprints (Humbert 2009). It further seeks to provide consistent assessment techniques for calculating and reporting a water footprint as a stand-alone assessment (only water related impacts). It is expected to benefit organizations, governments and interested parties worldwide by providing transparency, consistency and credibility to the task of assessing water footprint and reporting the water footprint results of products, processes or organizations (ISO 2013). Water footprint assessment identifies potential environmental impacts related to water. It also identifies the quantity of water used and the changes in water quality.

Therefore, ISO 14046 presents a number of benefits (ISO 2013):

- Assess and prepare for the future risks of water use;
- Identify ways to reduce the environmental impacts of water use;
- Improve efficiency at product, process and organizational levels;
- Share knowledge and best practice with industry and government; and
- Meet customer expectations of increased environmental responsibility.

5. CSR approach in Algeria

The business organization’s contribution to the protection of the environment involves a set of processes. In most cases, environmental contributions are often compulsory because the related legislations and directives define the pollution norms and objectives, taking into account the absorptive capacity of the environment. Failure to comply with existing laws and directives, the business organization may cause serious damages to the environmental resources and ecosystems’ balance and, therefore, to the community. When the business organization abides by the defined pollution norms and objectives, this is called compulsory contribution or ‘legal social responsibility’. When the business organization achieves better pollution norms and objectives, then the additional costs borne by the organization are called voluntary environmental and social contribution. In both cases, the environmental contributions made by the business organization are considered positive. But when the business organization fails to respect the pollution norms, then its contribution is negative. This can be the result of:

- A lack of pollution’s monitoring by the business organization;
- A partial control of pollution;

- The location of business, for instance in an industrial area, where pollutants accumulate in quantities higher than the defined standards;
- Non-respect or partial respect of the standards and specifications for the quality or safety of the products.

The mainstreaming of CSR approach in business operations is still very weak in Algeria despite the government and civil society's efforts to promote the protection of natural resources and the environment. Indeed, business organizations in Algeria are extracting and using the volumes of natural resources which their operations require without much control, monitoring, or care. They only pay for the cost of the resources they use, and some of them use some of the resources they need, such as water, for free and they do not usually care much for it. Operating responsibly is by no means a shared practice at the organizational level. Therefore, Algeria is lagging behind in terms of CSR, and is required to find means and ways to encourage business organizations to mainstream CSR principles and guidelines in their management strategies in order to reduce both the resources they use in their production processes and the waste they release. This is vital to conserve the country's ecosystems and achieve environmental and social sustainability.

6. Incentives to Promote CSR in Algeria

To promote CSR strategies at the organizational level, the Algerian government is required to provide a set of incentives to the business sector. In this regard, the following measures can be effective:

- Economic incentives (such as tax reduction) to businesses mainstreaming social and environmental sustainability, and saving energy and natural resources in their management strategies and processes.
- Substantial financial support to less pollutant manufacturers to help reduce their social and environmental costs.
- Community participation to enhance environment protection. Consumers should be committed to assist socially responsible corporations by purchasing and consuming their products.
- Governmental financial support to business organizations to reduce waste loads to cut down waste treatment costs. This could encourage businesses to produce and supply quality products and services in the most sustainable way. They should shift as much as possible to the production of recyclable products.
- Encouraging business organizations provide grants to environmental associations where workers can volunteer in their spare time.
- Encouraging private businesses to engage in recycling and reuse of unwanted items, such as bottles, cans, paper, and textiles in their production processes. Organizations should encourage consumers to collect and not to throw away used material. The aim is to put to a new use what has been used and to reduce industrial and consumer discharge.

- Stimulating businesses to invest in recycling so that materials can be reused in their processes or allocated to other uses. Using recycled materials in industrial processes should be promoted throughout the country¹.
- Granting CSR awards for best quality and eco-friendly products and services, as well as for businesses using less water, energy and chemicals, and producing less waste. They should be encouraged to achieve zero discharge of toxic chemicals. The aim is to reduce their overall potential impact on workers, consumers, and the environment.
- Providing assistance in the development, implementation, and disclosure of sustainable projects and practices. Businesses must be assisted to adopt integrated management systems.
- Promoting eco-friendly knowledge and ethical business practices in the manufacturing sector. Collaboration between business organizations operating in the same sector of activity with the purpose of achieving zero discharge in manufacturing processes.
- Collaboration between business organizations and research bodies should be encouraged to induce technological innovation and promote the use of clean production processes. This can help the country to reduce the industrial waste and emissions, cut the energy and water costs, protect the other scarce resources, and ultimately sustain Algeria's business organizations.

6. Conclusion

Algeria is projected to face serious natural resource problems in the decades to come, particularly water. Fast population growth, urbanization, pollution, and climate change are undermining the scarce natural resources and posing serious threats to the country's economic, social and human development. More attention to the use of resources is desperately needed. The conservation of resources and sustainable practices appear to be vital to help the country deal with future environmental challenges.

Algeria should consider the use of natural resources in the future with much care. It needs to promote sustainable practices in all activities, including the private ones. If the country continues to use the scarce resources inefficiently and fails to protect them, it will experience severe resource shortages in the foreseeable future. This will likely make the government and business organizations unable to sustain industrial production and to foster development.

The country's business organizations are using natural resources without much care and are discharging tonnes of toxic chemicals daily into water bodies, often without proper treatment. Private business organizations in Algeria should be aware that wasting natural resources and polluting the environment directly affect the community in which they operate. On the contrary, when they cooperate to protect the environment and conserve the

¹ In this respect, the project Tenorio in San Luis Potosi (Mexico), which uses water it buys from a nearby wastewater treatment plant for cooling towers, could be a good example to follow. It should be noted that this project enabled the area of San Luis Potosi to reduce groundwater extraction of at least 48 million cubic meters and increased aquifer sustainability. Moreover, by using recycled water instead of freshwater the plant managed to cut water costs by 33% (Rex and Foster 2014).

scarce natural resources for the community, they, in fact, conserve these resources to sustain their production and secure their existence. Through the adoption of CSR principles and guidelines, the business sector in Algeria can operate responsibly and contribute positively to the protection of the environment and the security of the country's population.

4. References

- 1- Alhaddi H. (2015). "Triple Bottom Line and Sustainability: A Literature Review". *Business and Management Studies*, Volume 1, Issue 2, September, Redfame Publishing.
- 2- Allen, R. (1980). *How to Save the World*, Kogan Page, London.
- 3- Bulcke P. (2012). "Nestlé CEO on the Need for International Standards", 25 July, 2012. Available from: http://www.iso.org/iso/home/news_index/news_archive/news.htm?refid=Ref1628
- 4- Cheauvau A. et Rosé J.J. (2003). *L'entreprise responsable [The Responsible Enterprise]*, Editions d'Organisation, Paris.
- 5- Elkington J. (1994). Towards the Sustainable Corporation: Win-Win-Win Business Strategies for Sustainable Development. *California Management Review*, Volume 36, Issue 2. Available from: <http://dx.doi.org/10.2307/41165746>
- 6- Elkington John (1997). *Cannibals with Forks – Triple Bottom Line of 21st Century Business*. Stony Creek, CT: New Society Publishers.
- 7- Elkington J. (2004). 'Enter The Triple Bottom Line', in Adrian Henriques and Julie Richardson (ed.), *The Triple Bottom Line: Does It All Add Up?*, Earthscan, London.
The chapter available from : <http://www.johnelkington.com/archive/TBL-elkington-chapter.pdf>
- 8- European Commission (2002). *Green Paper – Promoting a European framework for corporate social responsibility*. Available from: http://eurlex.europa.eu/smartapi/cgi/sga_doc?smartapi!celexplus!prod!DocNumber&lg=en&type=doc=COMfinal&an_doc=2001&nu_doc=366.
- 9- ESCAP (2009). "Eco-Efficiency Indicators: Measuring Resource-Use Efficiency and the Impact of Economic Activities on the Environment", the United Nations Economic and Social Commission for Asia and the Pacific, United Nations publications, Bangkok, Thailand.
- 10- Hart S.L. and Milstein M.B. (2003). "Creating sustainable value". *Academy of Management Executive*, 17(2), 56-67.
- 11- Hoekstra, A.Y., Chapagain A.K., Aldaya M.M. and Mekonnen M.M. (2011). *The Water Footprint Assessment Manual: Setting the Global Standard*; Earthscan: London.
- 12- Humbert S. (2009). "ISO Standard on Water Footprint: Principles, Requirements, and Guidance", UNEP/CEO Water Mandate, Paris, 23 November.
- 13- International Organization for Standardization (ISO) (2010). *ISO 26000, Guidance on social responsibility*, 1st edition, Geneva.
- 14- International Organization for Standardization (ISO) (2013). *No More Waste - Tracking Water Footprints*, Geneva. Available from: http://www.iso.org/iso/home/news_index/news_archive/news.htm?refid=Ref1760
- 15- International Organization for Standardization (ISO) (2014). *ISO Guidance on Social Responsibility, Discovering ISO 26000*, Geneva.
- 16- Jowsey, E., Kellett, J. (1995). The comparative sustainability of resources. *International Journal of Sustainable Development and World Ecology*, Volume 2, Issue 2.
- 17- Mäler, K.-G. (1991). National Accounts and Environmental Resources. *Environmental and Resource Economics*, Volume 1, Issue 1.
- 18- Pearce, D. (1988). 'The Sustainable Use of Natural Resources in Developing Countries', in R.K. Turner (ed), *Sustainable Environmental Management Principles and Practice*, Westview Press, Boulder.
- 19- Pearce, D. and Atkinson, G. (1993). *Capital Theory and the Measurement of Sustainable*

Development: An Indicator of Weak Sustainability, *Ecological Economics*, Volume 8, Issue 2.

20- Petkoski D. and Twose N. (2003). Public Policy for Corporate Social Responsibility, July 7-25, the World Bank, Washington D.C. Available from:

http://info.worldbank.org/etools/docs/library/57434/publicpolicy_econference.pdf.

21- Rex W. and Foster V. (2014). Ahead of World Water Day: Let's Talk About...Energy? Available from: <http://blogs.worldbank.org/water/ahead-world-water-day-let-s-talk-about-energy>.

22- Skye J. (n.d.). "Causes of Environmental Degradation". Available from:

http://greenliving.lovetoknow.com/Causes_of_Environmental_Degradation

23- Slaper T. f., Hall T. J. (2011). "The Triple Bottom Line What is It and How Does It Work", Indiana Business Research Centre, Indiana University, Kelley School of Business. Available from:

<http://www.ibrc.indiana.edu/ibr/2011/spring/article2.html>.

24- Tabet-Aoul M. (2011). "Innovating Ways to Face the Effects of Environmental Degradation", Hydrométéorological Institute, Feb 10. Available from: <http://www.mei.edu/content/innovating-ways-face-effects-environmental-degradation>

25- Titilola, T. (1994). Indigenous Knowledge Systems and Sustainable Agricultural Development in Africa: Essential Linkages. *Indigenous Knowledge and Development Monitor*, Volume 2, Issue 2.

26- United Nations Commission for Regional Development (UNCRD) (2011). Reduce, Reuse and Recycle (the 3Rs) and Resource Efficiency as the Basis for Sustainable Waste Management, 9 May, New York.

27- Viederman, S. (1993). The Economics and Economy of Sustainability: Five Capitals and Three Pillars. Talk delivered to Delaware Estuary Program. Available from Jessie Smith Noyes Foundation, New York.

28- World Business Council for Sustainable Development (WBCSD) (1998). "Corporate Social Responsibility, Meeting Changing Expectations". Available from:

<http://www.wbcsd.org/Pages/Adm/Download.aspx?ID=108&ObjectType=7>

29- Zwahlen R. (1995). "The Sustainability of Resources Versus the Sustainability of Use: A Comment". *International Journal of Sustainable Development*, Volume 2, Issue 4, World Ecology 2, Electrowatt Engineering Services, Ecology Department, Zurich.