STEWARD THE FUTURE SUSTAINABILITY STRATEGY FOR AN ORGANIZATION

*Dr. Waddah S. Ghanem Al Hashmi

Introduction

The role of organisations must be to create shareholder value but now equally as critical to generate long term sustainable value over longer periods of time. To attract and retain investment from shareholders, the organisational or enterprise stakeholders today play a much greater role in shaping the future of the business. The impact of employee engagement or employee happiness for example, is a much more significant driver for many organisations in the world today. Likewise, the suppliers (and service providers) of raw materials and goods for a business within the supply chain have not only greater bargaining powers but can also set certain expectations that relate to the code of conduct, ethical expectations, social accountability requirements as well as demonstrable enterprise risk management.

This more complex coupling of business supply chains has made it incumbent upon organisations to normalise and align their overall long-term sustainability policies and practices with the rest of the supply chain both upstream and downstream of their enterprise. Both institutional and private funding parties have also in the wake of significant failing corporate governance episodes all over the world, has made risk management and governance drive sustainability at the heart of the due diligence processes created to protect from value erosion and reputational impacts.

So, what then should be the role of Boards and Executive Management in ensuring they protect the assets and businesses from such exposure? Surely they must be at least aware, and manage those risks within risk governance frameworks which set those operational boundaries and define the risk appetites.

Current Global Realities & Changes

Sustainability has moved from the 1990's after the sustainability agenda focused mainly on environmental matters (i.e. the Rio de Janeiro Conference) where we first coined the term sustainable development) with resource preservation, pollution control and management, waste recycling and manging major matters such as water scarcity, water pollution, air pollution and desertification and so on. Sustainability today focuses on the socio-economic value of an organisation as much as it does on the environmental management standards. The risks of lack of a more holistic approach to managing the organisations societal value cannot be underestimated to a modern organisation. However, these developments have become too complex for business managers to understand at times. Even the links of incidents with their direct, related and root causes as well as the cause and effect of business decisions made which may have attributed to the losses and impacts are not fully understood.

It is worthy to note that Enterprise Risk Management (ERM) has contributed positively to bringing about better awareness to the boards and executives. However, the author still feels that much more engagement is required not only in monitoring risks but contributing to the discussions around managing these risks which are often very dynamic. To this point, MacLean[2] explains that it is because of this growing complexity and interactivity that for example EHS professionals and managers/directors are finding themselves working ever more closely with the strategic business planning functions in corporations. Not such a bad thing really, as this means that a more holistic approach to risk management is starting to emerge.

EHS Managers, who traditionally were given the task to manage environmental management systems (EMS) are no longer equipped sufficiently in skill set and expertise to manage sustainability which has grown in the past decade to become an independent discipline. That is why in many organisations, sustainability functions have been created separately and work closely with the EHS, HR and Finance functions within organisations.

Globalization has also had an impact on many nationalised economies. Traditionally these economies have been centrally controlled, but with a breakdown of economic boundaries have come an increase in power of markets driven by multinationals, technology and changing economic factors. This has led to the need for a more informed leadership within the major industries within the national companies who now look more to move to a multi-national company model, with perhaps, we hope, more engaged and informed boards[3].

Major benchmarking studies undertaken in the past 1-2 decades in the O&G sector shows even very large National organizations such as the Abu Dhabi National Oil Company (ADNOC) has seen great development of reform in terms of corporate governance[4]. ADNOC has been seeking in the past couple of years to expand both organically and inorganically globally as much as it has been in even more recent times, looking for Foreign Direct Investments (FDI) in to major projects in the UAE. Their retail operations also moved towards creating a public offering as they moved ADNOC distribution to a listed company. With this comes a transformation in the management approach and board constitution which we are sure will involve a greater number of senior independent (expert) directors and advisors on their board committees.

In 2010 the GCC - Board Directors Institute (GCC-BDI) was established as a not-for-profit organization dedicated to making a positive impact on the economies and societies of the GCC states and region through promotion of professional directorship and raising the level of board effectiveness. The founding members are from both the financial and industrial sectors and there are professional content partners representing four of the most well-known international business consultancies, regulatory partners and corporate affiliates representing both the financial and industrial sectors. Their workshops focus on raising Board Directors' awareness on matters including strategic risk management, legal imperatives for board directors and leadership matters [see http://www.gccbdi.org] [5]. Of course in other parts of the world institutes of directors exist for that very purpose of developing directors further.

More globally, Carey and Patsalos-Fox (2006), explain that after many serious corporate governance standards have come into effect such as the US based Sarbanes-Oxley Act (SoX) the demand for academics, non-profit organization executives, and retired executives to be engaged as Board Directors has increased dramatically[6]. The Organization for Economic Co-operation and Development (OECD) in 2012 developed a voluntary standard on Corporate Governance and Process Safety Management (PSM) that focuses on high risk industries[7]. The document concludes with a model in which leadership is the heart of the model. Progressive companies now seek to fill 30% of Board seats with seasoned professionals and specialists with expertise in corporate social responsibility (CSR).

Role Of Boards In Strategic Sustainable Development

Boards have a very complex role of being simultaneously entrepreneurial and exercising prudent control; sufficiently knowledgeable about the business whilst standing back from the day-to-day workings in order to retain an objective and long term view; sensitive to the short-term pressures whilst being informed on the longer-term implications; knowledgeable of the local issues whilst maintain clear understanding of the more international aspects; and focusing on the financial performance whilst acting responsibly towards all stakeholders[8].

As such a certain degree of care and diligence is expected from all directors who must carry out their functions with reasonable skill, care, diligence and they may be liable if they are negligent and higher standard of performance is required of a director who may possess skills or professional qualifications. That is why the role of the Institutes of Directors around the world are becoming so much more important in providing the right platforms and learning and information exchange forums. Workshops and Conferences organised by such institutions allow for the right level of knowledge exchange and networking to share best current practice. In the coming years, Directors must start to prove their competence in the roles they play on boards.

It is good practice for boards to have clearly stated in the Memorandum and/or Articles of Association (MoA) and/or (AoA) the powers of the board directors and the chairman. This is important as this is where executive and non-executive roles may overlap. The CEO should be allowed to demonstrate their leadership and management whilst the board should be able to “interfere” should they feel this is part of the prudent corporate control. Whilst many examples may be cited especially when it comes to financial decisions, our focus in this paper relates more on both the operational and non-financial performance of organizations. With long term sustainability, even the balance between long-term and short-term investments, debt management and social investment projects are all matters for Boards to discuss with the CEO, CFO and the executive team.

Furthermore, the Board must be able to undertake some meaningful discussions with the CEO and his executive team with respect to what their organisation is doing to ensure that effective sustainability strategies to ensure the long-term viability and long-term sustained value generation. However, the real challenges which exist today is how will these new boards help transform organisations towards sustainability and the support of the global strategic development goals.

Transparency & Sustainability Reporting

Sustainability reporting traditionally relates to reporting on the triple bottom line on matters relating to environmental protection, social value development and economic development in organisations within the societies and economies they operate in. Today there are many different frameworks that exist that organisations can use and leverage in their development if management systems, policies and internal processes. Perhaps one of the most prominent is the Global Reporting Initiative (GRI) Standards which have over the years become less ambiguous and perhaps more prescriptive as the standards have been further reinforced with clear guidance. A reflection we believe of the maturing of the global reporting standards and practices.

Voluntary reporting has increased in more recent years as organizations want to present themselves as good corporate citizens and charity must start at home – when protecting their own assets, employees, environs they operate in, and their investments. There is significant literature in these areas which addresses the involvement of leadership and company boards in driving these initiatives, endorsing the reporting and enhancing transparency within their organizations, the industry and the public. This is also becoming very important in the rapidly transforming context borne by the new socio-economic realities in even regions such as the Middle East.

But this thinking has started several years ago, in 2010 *The Safety and Health Sustainability Taskforce* set up by the American Society of Safety Engineers (ASSE), now recently changed to the American Society of Safety Professionals (ASSP), had developed a Safety and Health Sustainability Index (SHSI) more than a decade ago. This index was built on six key elements: Values: (1) Safety and Health Responsibility Commitment; (2) Codes of Business Conduct; Operational Excellence; (3) Integrated and Effective Safety and Health Management System; (4) Professional Safety and Health Competencies; and under Oversight and Transparency: (5) Senior Leadership Oversight and Safety and Health and, (6) Transparent Reporting of Key Safety and Health Performance Indicators[9]. It can be argued that the impact of this taskforce was limited, because it was through the EHS practitioners and not through the business community at large, as we see today with the global sustainability movement.

The inception of the ISO 9001 Quality Management System Standard in the early 1990's (which started as the British Standard BS 5750) followed by the ISO 14001 Environmental Management System (EMS) and OHSAS 18001 Health & Safety Management System Standards have all brought about change in organizational behaviour towards self-driven compliance. These certifications, it may be argued, have given organizations an effective brand-value proposition and marketing edge against their competitors – with their stakeholders more inclusively rather than just their shareholders. This perhaps reflects the appetite to invest and comply with a standard when an organisation feels it adds value from an external perspective. These standards brought about a greater culture in the industry towards developing standards, conforming to them and standing out to say that our organisation conforms to a set of international best practices.

The latest ISO 45001 standard goes beyond many of the previous ISO environmental, quality and health & safety standards in that it impinges much of the standard on the leadership and strategy of organisations to fully align their business performance with sustainability and health and safety matters. In its inherent philosophical grounding, it also is much more performance-based and risk-based as opposed to being very prescriptive and standardised with articled requirements. It can be said that the creating and now the approved promulgation of this auditable standard reflects the more advanced maturity stage at which the industry finds itself today with respect to greater self-governance and integration of their operating systems with their strategy and long term existence. It is refreshing to see that the more recent ISO standards have started to place a greater emphasis on leadership commitment towards stewardship.

The *"Rewarding Virtue"* document recommended 6 areas to reinforce the UK's Combined Code (for corporate governance). These included (1) setting of clear values and standards by the leadership; (2) Thinking strategically about corporate responsibility; (3) Being constructive about regulation by being self- regulating and supporting the authorities; (4) Aligning performance management systems to encourage rewarding a more longer term out-look/behaviours rather than shorter term and narrow financial targets; (5) Creation of a culture of fairness and integrity in which the tone is set right at the top; and finally (6) Using internal controls to secure responsibility and thus through effective governance systems[10].Kotler & Lee explain the shift that has taken place in the past 50-60 years from an obligation to a strategy. The links between the profit-making organizations and the more philanthropic ones has matured and emerged to become more symbiotic supporting the greater development of resources such as marketing, technical and employee volunteerism. This meant more personal involvement of the organization's staff with support from their employers rather than just paying into NGO's cash contributions[11].

Good companies continue to fail to do what is perceived to be the right thing. They fail to be able to clearly prevent things happening and things or situations deteriorating and Schwatrz and Gibb conclude their book *"When good companies do bad things"*[12] with the following reasons why companies fail:

(a) They fail to create a culture that tolerates dissent or one in which the planning processes are encouraged to take non financial risks seriously;

(b) They focus primarily on financial performance;

(c) They discourage their employees to thinking about their work as whole people, from using their moral and social intelligence as well as their business intelligence;

(d) They focus on people and organizations that think and behave the same way and avoid those who do not agree with them or criticize them.

(e) They let their commitments to certain projects and products overwhelm all other considerations and decisions; be they financial, ethical or social etc.

(f) The senior management consider social issues as those for others to have to worry about as this is not part of their necessary operability and existence.

The notion that such companies do not have a long-term view or vision in a socio-environmental or socio- economic context and they expose themselves to more bad incidents occurring is evident. Firstly, because their risk assessments are flawed, and secondly when there is a failure they have very little to show for doing anything to have effectively prevented it. As they must invest in emergency and crisis management they become classified as highly unreliable organizations.

In terms of environmental protection, social responsibility and EHS at work, these aspects have become of significant importance to corporations. Many organizations within the Oil and Gas sector, for example, will be very clear and vocal in their commitment to these issues, as they must!

Maclagan[13] explains that trust in organizations by all its stakeholders including the employees, customers and the public is essential for its longevity and sustainable existence and growth. This has led to the development of audit committees, codes of ethics and CSR-type policies etc. The value of corporate governance goes beyond control; in that it creates an environment of enterprise and best professional practice to extract the long term-value from a commercial enterprise[14].

In 1997 a standard was issued (later updated in 2001) as a guide to companies in addressing worker rights. This was the Social Accountability Standard SA 8000 which was developed by Social Accountability International based in NY, USA[15]. The standard has been since updated with the last version issued in2014. The standard has had to change to higher standards to address the growing social disparity issues, gender equality, pay equality and simply the exploitation of more destitute labour markets.

In our view, the main foundation of the issues relating to the lack of commitment to sustainability matters even at the higher management level in organisations remains deeply grounded in the lack of proper executive education and development.

With the pressures from regulation and legal compliance in developed countries, the movement of the traditional secondary industry including manufacturing, agriculture, extractive industries even electronics and apparel to poorer geographies where the labour market is available with lesser bargaining powers and with lesser environmental regulations and standards was inevitable. However, in recent years with easier open communications in the media the advent of the internet and social media etc. this has led to greater transparency on such practices by multinational organisations.

However, organizations, especially the multinationals, are being blamed more and more for exploitation of both people and the environments and some being subsequently boycotted. Epstein[16], explains that whilst the Global Compact has helped in shaping human rights expectations of employers it has had its fair share of criticism due to the failing or lack on monitoring, accountability and enforcement. Perhaps one of the resources was that much of this drive has been overwhelming for organizations who wanted to comply as they understood the importance, but in all fairness, perhaps did not expend enough effort in initiating/inducting (also sometimes called "on-boarding") effectively all the leadership teams within these organizations, starting with the Board of Directors.

When organizations address the issue of sustainability, it is critical to understand three key reasons; (1) Greater Environmental Awareness in the Public; (2) Greater Expectation from the Shareholder for the Board and Management of an organization to ensure long-term (sustained) value proposition and; (3) the significantly increased "customer power" in that the customer has a greater choice to go to the extent of boycotting a product or service. So, there are both positive business benefits and risk management reasons.

Bell and Morse[17]explain that *"Greening the Strategy"* is essential for many organizations today. This means things including risk reduction, reducing environmental stresses and in turn the human vulnerability to environmental stress and in fact if not mitigated and controlled at source, risks in general impact greater on the societal and institutional capacity to respond to EHS challenges notwithstanding the ethical need for global stewardship.

As such the creation of a quantitative value in the form of an *Environmental Sustainability Index (ESI)* was created several years ago. The index is perhaps more subjective although represents itself as an objective figure – its value lies in the awareness it brings about (especially to executives who frequently work with numbers), brings about some specific rationalization of a globally complex issue to digest, and at the very least can help if used effectively to get leadership in organizations to make better informed/aware objective judgments.

Today on various stock exchanges such as the American based stock exchange's Dow Index, a sustainability index. The Dow Jones Sustainability Indices *"serve as benchmarks for investors who integrate sustainability considerations into their portfolios, and provide an effective engagement platform for companies who want to adopt sustainable best practices"*. This helps private and independent investors make a choice with the long-term investments in to organizations who have a better performing sustainability index. With this level of transparency especially in the listed markets, organization boards will be expected to consider sustainability in their strategy as now it can have a direct impact in long-term investment strategies. see http://www.sustainability-indices.com/about-us/

Therefore, company leadership must start to think of their sustainability strategy moving forward. Consider for example Hart[18]who talks of the new *"sustainable global economy"*. He proposes that organizational leadership may consider three stages of implementing a green strategy starting with pollution prevention; followed by product stewardship and looking at product lifecycle impact; and then the investment in cleaner/environmentally sustainable technologies. This commands a longer-term view-point on risks and opportunities, especially for organisations involved in manufacturing and production.

The above is consistent with the growing notion of the shift from "traditional industrialism" to "natural capitalism" as described by Lovins et al[19]. A real financial value in optimization of resources with available technology improvements and the rising price of both raw materials and waste management/disposal means that *Environmental Stewardship* goes beyond doing the right thing – it makes business sense.

In a thought provoking publication by Luikenaar and Spinle y[20] Sustainability matters in organisations and the issues associated have led to the emergence of a new profession *"the Chief Sustainability Officer"*. Significantly high level issues that organizations must address and the pressures for change are driven by EHS, sustainability and the regulations which put greater vicarious liability on the organization. On the other hand, there are good incentives to changes which include: enhanced brand image/reputation; decreased costs associated to insurance, losses and fines; a greater protection of assets; and increased efficiency in both plant and people.

In conclusion, matters that relate to the organisation demonstrating that they are a sustainable organisation and adding social value by protecting people and the environment and in fact providing for opportunities to improve the standards of living, education, the eradication of poverty and other SDG goals as discussed in this paper. This is true in both developed and developing economies. With greater globalisation of business in general around the world, it seems that the standards or better still the expectations for corporate social responsibility but more generally and significantly long-term sustained value and sustainability are also becoming very similar.

The Road Ahead

In various publications that author has contributed with in the debate and discussions on the future of corporate governance and the performance of directors, he has always insisted on the simple fact that what has been shaping the change in the past decade, shall not be necessarily the what shall shape the corporate governance practices in the decade to come. The fact that the world is moving more from an asset based economy to a services-based economy, shall drive a "naturally sustainable" future in some ways where less will be owned by organisations and customers. It is other factors such as electronic currencies, rent-and-use rather than buy-and-own and have great redundancy in an asset, the changing way we communicate information and the global transparency imperatives will have an impact on organisations.

This is going to be an interesting revolutionary change in the way that mankind sees wealth through the ownership of material things! However, this move will also mean that the consumeristic perspective will demand less in terms of the long-lasting durability of assets. Mobile phones are a simple case-in-point where the average owner of a new phone will change that phone within 12-24 months an upgrade to the next model. This consumerism will have significant stress impacts on resources which are being consumed at a much higher rate with an increased population whose demand for excessive resources continues at a much faster and higher rate than the rate of being able to reuse and recycle resources.

From a resource perspective, food security, energy demand and the need for shelter and safety will remain the basic human needs. The population explosion in the world and the increasing gap of wealth between the rich and poor shall drive many more acute macro-socioeconomic changes. All these matters will shape more the move towards a different model of supply of goods and services to populations. These macro- economic considerations will impact sustainability strategy of organisations.

We already see today political systems in the major economies moving towards greater protectionism and protectionist policies in the largest economies and super powers. We are in the post-globalisation era. One key factor is the fast-growing populations who have more access to information and will demand greater job, food and energy security. Organisations require to take this into consideration in their design of future strategy and its operationalisation.

But the question will be how will this impact the future boards? Considering the SDGs in which nations such as India, the UAE and other emerging and fast growing socio-economies board will be expected to play a more leading role in shaping the organisations approach to sustainability. This will only be possible when they are personally aware of how sustainability issues and their organisations long-term growth and development strategies connect. Major factors in the impact on business in the future will be aspects like security matters of all kinds, retained organisational talent and industry knowledge with aging populations of experienced talent and disruptive technologies. But the cost of even the climate changes on temperatures, flooding and other natural calamities are making organisations understand that they now have new, serious and real risks which, whilst they may be able to insure to some extent for, the cost to their business both in terms of premiums and business continuity interruptions has made it so acute that they must ask what is it that they can do to help, if not reverse, at the very least reduce the causes.

What we are saying here is that directors must understand climate change, SDGs, sustainability indices and all these other associated "technical" aspects, if they are to help demonstrate effective directorship. Knowledge and awareness is one thing, but being so familiar with the connectedness and causal models that connect the environmental, and socio-economic factors together in the industry and the societies the organisations operate in is going to be imperative.

These are what will shape the demand for a different board and executive talent bench. Less traditional thinking directors will be the source of the change. This can come with the relatively younger generation of executives moving into board positions or otherwise the intensification of training and development of current directors, either way the change in the mind-set of directors as individuals and the collective wisdom of the board as a group must transform to transform organisation to being more long-term looking and to ensure that the value-proposition sustains. This interestingly includes the view on disruption innovation changing the products, services and modes of delivery of an organisation as they face technological, environmental and even political changes.

There shall be still a very important role that regulations and best corporate governance codes that shall continue to evolve to create structured compliance and minimum standards that in turn maintains economic stability. But it is not so much the standards that will shape social investment and corporate responsible behaviour as much as it will be the demands of the more aware stakeholders. These stakeholders may not necessarily be better informed as today the quantum of information out there is massive, but the ability to analyse and make effective decisions may not be as structured as it was in the past. Directors must face a future in which the external pressures and expectations of stakeholders will pay as much if not more pressure to continually consider reforms as from the shareholders. With sustainability becoming an important factor, the balance of power has been shifting in the past decade from the traditional shareholder commanding with wealth to the stakeholders commanding with expectations.

Therefore, it is high time that even Board Director development programs and interventions started to transform towards getting executives to understand issues of sustainability, corporate social responsibility and environmental stewardship. As such it is not even the triple bottom line approach that will prevail, it is integrated reporting rather than the traditional financial investment metrics that will be demanded as shareholders especially of listed organisations expect for their investments – and thus for these shareholders to remain committed, organisations will need to demonstrate long-term commitments to sustainability. The new stakeholders will demand to better be sold on more socially and environmental responsible businesses that have more holistic societal value which is sustainable, and thus leaders must prove they are stewards of sustainable businesses rather than leaders of organisations.

Finally, it can be argued that even state owned businesses and family businesses shall have to support the nations they operate in with respect to the global compacts and the strategic development goals.

References

1) Lukic, Dane; Margaryan, Anoush; and Littlejohn, Allison (2010): "How organizations learn from safety incidents: a multifaceted problem", The Journal of Workplace Learning, Vol. 22, No. 7, 2010

   a. pages 428-450.

2) MacLean, Richard (2001): "Coming to grips with Business Reality", Environmental Protection

   a. Magazine, February 2001, Pages 42-44.

3) Major, John (2005): "Multinational Corporations and State Sovereignty: Redefining Government Responsibilities in a Global Economy", The Gulf Challenges of the Future, Published by The Emirates Centre for Strategic Studies and Research, UAE, 2005.

4) Booz & Co (2010): "Oil and Gas Sector and Corporate Governance Benchmarking", Booz and

   a. Company Consultant Research Report Presentation, Version 2, Beirut, 2010.

5) See http://www.gccbdi.org.

6) Carry and Patsalos-Fox, 2006: "A Board Perspective on Enterprise Risk Management", Mckinsey,

   a. 2006.

7) Organization for the Economic Cooperation and Development (OECD), (2012): "Corporate Governance for Process Safety – Draft Guidance for Senior Leaders in High Hazard Industries", Draft – 1st March 2012, Environment Directorate, Joint Meeting of the Chemicals Committee and the Working Party on Chemicals, Pesticides and Biotechnology, Ref: ENV/JM/ACC(2012)1, March

   a. 2012.

8) Institution of Directors (IOD): "Standards for the Board – Improving The Effectiveness of Your

   a. Board", Good Practice for Directors, Edited by Tony Renton, Published by the IoD and Kogan Page,

   b. 120 Pentonville Rd, London ISBN 0-7494-3081-8, 1999.

9) American Society of Safety Engineers (ASSE), (2010), "Safety and Health Sustainability Index

   a. Taskforce" – Working Paper – Edited on 26th May 2010.

10) Health & Safety Executive (HSE) & Institute of Directors (IoD), (2008): "Leading Health & Safety atWork – Leadership Actions for Directors and Board Members", INDG417, HSE Books, 2008.

11) Health & Safety Executive (HSE), (2006): "Defining best practice in corporate occupational health and safety governance" A report Prepared by Acona Ltd for the Health and Safety Executive Research Report 506, 2006.

12) Kotler, Philippe; & Lee, Nancy: "Corporate Social Responsibility – Doing the most good for your company and your cause – Best practices from HP, Ben and Jerry's and Other Leading Companies", John Wiley and Sons Inc., ISBN 0-471-47611-0, 2005.

13) Schwatrz, Peter; & Gibb, Blair (1999): "When Good Companies Do Bad Things – Responsibility and Risk in an Age of Globalisation", Published by John Wiley and Sons Inc, 1999.

14) Maclagan, Patrik (1998): "Management and Morality", Sage Publications, 1st Edition, 1998.

15) Bain Neville; Band, David (1996): "Winning Ways through Corporate Governance", Macmillan

   a. Business, First Edition, 1996.

   http://www.sa-intl.org/

17) Epstein, Marc J: "Making Sustainability Work – Best Practices in Managing and Measuring Corporate Social, Environmental and Economic Impacts", John Elkington and Herman B. Dutch" Leon and Green hay Publishing, Berrett Koehler Publishers Inc. San Francisco, 1st Edition, 2008.

18) Bell, Simon; & Morse, Stephen: "Sustainability Indicators – Measuring the Immeasurable", 2nd

   a. Edition, Earth scan Publishers, 2008, 1st Published in 1999, ISBN 978-1-84407-299-6.

19) Hart, Stuart L. (2008): "Beyond Greening: Strategies for a Sustainable World", originally published in Jan-Feb 1997 Reprint 97105, Harvard Business Review on Green Business Strategy, 2007, Harvard Business School Publishing Corporation, Harvard Business School Press, Boston, MA

   a. 02163, ISBN 978-1-4221-2108-5, 2007.

20) Lovins, Amory B.; Lovins, L. Hunter; & Hawken, Paul (2007): "A Road Map for Natural Capitalism", originally published in May June 1999 Reprint 99309, Harvard Business Review on Green Business Strategy, 2007, Harvard Business School Publishing Corporation, Harvard Business School Press, Boston, MA 02163, ISBN 978-1 4221-2108-5, 2007

* ***Dr. Waddah S. Ghanem Al Hashmi, MBA, MSc, DipSM, DipEM, FEI, AFIChemE, MIoD Senior Director - Sustainability, Operational & Business Excellence ENOC, Dubai, United Arab Emirates, Vice Chairman, Board of Directors, DCCE PJSC, Dubai, United Arab Emirates***