Theme Paper

18th World Congress on Environment Management

Environment and Climate Change – Transitioning to a Sustainable Economy

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Already this year and for several months in a row average temperatures have been the highest ever recorded. Climate change or global warming presents a multi-levelled challenge to individuals, organisations, communities and governments. Whether we are an individual consumer, investor or employee or we have collective responsibility as a director, public official or elected politician our individual, collaborative and team responses may have some influence and could have an impact. Whether they will be enough for a successful transition to a sustainable economy will depend upon their adequacy and our commitment to their implementation.

There have been many speeches and reports, dire warnings and calls to action. Directors should know from their boardroom experience that there comes a time when one needs to move on from rhetoric to action. Assessing the practicalities of different courses of action, getting agreement and the taking of decisions could involve supply chain partners, a trade association or local authority or discussion with Government bodies on the advantages and disadvantages of various forms of intervention, including laws and other measures. Government involvement and action such as regulation is not a panacea or easy. It can lead to costs and unintended consequences (Mejia, 2009).

Players and Contributions

If boardroom discussions are to be informed and relevant, and board decisions are to be appropriate, affordable and sustainable, directors need to be aware of issues, options and the different areas in which responses are possible and desirable. The decisions of directors can help to make theoretical discussion of the internalization of externalities and the use of pricing to change behaviour a practical reality in certain contexts (Coase, 1960). In relation to who should do what and when those with the desire and capability to make a difference need to consider the relative power and contributions of consumers, investors, corporations and states.

Timing is critical in relation to competitiveness. Greater connectivity magnifies a first mover advantage in terms of differentiation, engagement and competitive advantage that can accrue to those who show leadership and provide cost-effective ways of helping and enabling others to cope. Given the many arenas in which change is required and the scale of the adjustment that needs to occur, there should be opportunities for most businesses to use their capabilities in ways that deliver benefits for themselves, their customers and the environment.

What should a board's approach be to commitments that are made by other parties without consultation at meetings it has not participated in? How should companies react to undertakings made by Governments of jurisdictions in which they are registered and/or operate, for example in relation to the Paris Climate Change Agreement? It is natural for people to show more commitment to the outcomes of processes they have participated in. When not consulted or involved they may do just enough to appear to be a good corporate citizens and to further their own self-interests. Policy makers should consult and seek to work with those likely to be affected by changes (Agrawal, 2005). This may not be easy during the course of the horse trading that sometimes occurs during fast moving international negotiations but can be very helpful at the implementation stage.

Issue Monitoring and Management

Corporate monitoring and management of environment and other issues should concern opportunities as well as challenges. How will climate change and global warming impact upon a company and its operations? In what areas might they be beneficial and enable new possibilities? How will changes affect a company's customers, the users of its offerings and local communities? What could and should it do in response to help its own people and others to adjust, address challenges and seize opportunities? How do the identified opportunities rank in priority?

How should a board monitor developments in science and technology that are related to combating climate change, coping with global warming and preserving biodiversity and ecosystems, with a view to identifying opportunities for it to use its resources and strengths to create new offerings? What external help will it need? Using corporate capabilities to assist others can open up new avenues for innovation, collaboration and/or diversification.

Boards of larger companies with relatively expensive physical assets, an extensive environmental footprint and a larger requirement for raw materials and natural resources in limited supply may find that transition to more sustainable operations is complex. Adjustment can take time. It could involve significant crawl-out costs. Such companies may require sustainability strategies and plans and possibly a different business model. Roles and responsibilities may need to be established and new environmental governance arrangements put in place (Ahluwalia, 2015). A business case for the transformation required may have to be developed to keep investors on side.

Consequences of Development

Development continues apace and the impacts are relentless. For example, groundwater extraction to meet the needs of its population of over 10 million is causing low lying areas of Jakarta to subside at a rate of 10 centimetres a year. Directors need to be aware of the consequences of what is happening in the contexts in which they operate. Are our, public and other justifications for projects objective or self-serving? Do we and other decision makers exaggerate benefits and overlook or ignore certain costs? What will the environmental and bio-diversity impact be of the 450 new dams proposed for the Amazon, Congo and Mekong rivers? (Winemiller *et al*, 2016).

Sustainability and environmental quality are issues for cities and local communities as well as the companies that operate within them. Pollution, congestion and adverse weather conditions can impact upon health, productivity and performance. A company, its people and its customers can all benefit from resilient and effective transportation, water, energy, sanitation, sewerage, rubbish collection and waste disposal services. Individual and collective action may be required to ensure that these are not adversely effected by excessive and/or uncontrolled development.

Boards need to consider what role a company should play, either individually or in collaboration with other organisations and local bodies, in ensuring that essential infrastructure and public services are able to cope with climate and other changes. How might technological advances and other innovations help? Could more be recycled? Is a more integrated approach to addressing local, municipal and city requirements needed? Would certain options be viable if costs could be shared?

Hitherto different individuals, departments and public organisations may have managed different arenas that are becoming increasingly inter-linked. Issues relating to food, water, energy and the environment impact upon each other, and when there are conflicting uses of a finite resource they can no longer be considered in isolation. What role should a company and its supply chain play in an integrated response and in developing sustainable solutions? What could its contribution be?

Strategic and Technical Issues

The future viability of some enterprises is at stake. There may be competing uses for the increasingly scarce water a production process requires, whether for drinking or for irrigation to grow food. Ideally, people want to eat and drink and have the work-related income to pay for them, but to satisfy all requirements may require individual and collective effort to use water effectively, recycle it and more effectively harvest it, store it and transport it to the areas of highest need. Water management can become a core activity and/or an entrepreneurial opportunity.

Directors need to be aware of their obligations and responsibilities in relation to health, safety, environmental and sustainability requirements. How should these be handled? What standard kite marks should sought? What technical advice is required? What should the board do to encourage whistle-blowing and give a voice to those who have environmental concerns (ACCA, 2016)? If people do raise their worries, will their observations and comments be welcomed and addressed, or will they experience retaliation and face other unpleasant consequences because of a lack of an appropriate, fair and responsible corporate response (Alford, 2011).

Along with strategic challenges and entrepreneurial opportunities which many directors may feel able to discuss there might also be scientific and technical matters for many companies to address. Sometimes the business and scientific communities are talking past each other, rather than to each other. Boards should be advised by those who can present issues and influencing factors in ways that directors can absorb and understand. Certain issues that affect businesses in general may give rise to regulations, codes and standards, some of which may be voluntary and others mandatory. Proactive companies seek to influence measures that will impact on their operations. Laggards join the party, sometimes reluctantly, at the observation or implementation stage.

Collective action can help companies to determine how to tackle difficult areas. Directors should be alert to new developments and willing to collaborate and join initiatives relating to sustainability, such as those concerning the environment, biodiversity or reducing the depletion of natural capital. For example, should a company adopt the Natural Capital Protocol Principles and Framework developed by the Natural Capital Coalition (2015)? This takes business decision makers through a series of steps designed to help them to determine a corporate approach to natural capital use.

Creative and Inclusive Environments

Working and operating environments need to be healthy and safe, but also inclusive and liberating if they are to be conducive of imagination, creativity and innovation. How accessible are these environments and support facilities to people who are disabled? Do corporate, sales, service and other local environments encourage engagement with groups who have hitherto been excluded? Are they conducive of a variety of approaches, so that people have the freedom to work, learn and operate in ways that enable them to be at their best (Coulson-Thomas, 1997)?

Will our and other buildings be more flexible and intelligent? What do smart city initiatives mean for businesses? Do they promise more than better cabling and more band width? Will they lead to intelligent communities (Brunnen, 2016) and improved delivery of more integrated public services? Directors need to be aware of developments occurring in the social, physical and market environment and alert to ways of taking advantage of them. They might also consider what role they should play as an engaged and good corporate citizen in an intelligent community.

Involvement in creative and sporting activities can energise people and stimulate their imaginations, yet many city and other urban environments seem to give precedence to consumption, traffic

congestion and pollution. If provision is made for the creative arts it sometimes seems to have been an afterthought and/or the initiative of a concerned philanthropist. Sporting venues are often on the outskirts and designed for people to be sedentary spectators rather than active participants. A new initiative Bridges of Sports is seeking to increase participation in sports, starting with athletics and football in India. While a trigger may have been India's relatively low haul of medals in relation to its population, more sporting activity offers the prospect of other benefits such as reducing the incidence of diabetes. Boards could consider how companies and their people might be involved.

Making Better Use of Existing Infrastructure

When looking at urban facilities that would significantly improve the quality of life of people, including those who are marginalised, one sometimes thinks of the private affluence and public squalor highlighted by John Kenneth Galbraith (1958). How many directors notice accumulations of uncollected rubbish as they drive past in their smart private cars? Should people take more pride in their local neighbourhoods? Should more companies and public bodies be looking at shared services as a way of making more cost effective use of infrastructure? Could public services be delivered through one-stop-shops? Could this be facilitated by digital services?

We need to find ways of making better and fuller use of our existing resources. Airbnb enables hosts to rent out their private property assets via the internet, whether beds, rooms or a vacant apartment or house. It is was only formed in 2008 and is now the world's largest provider of accommodation even though what it lists and offers is owned by others (Cole, 2016). Uber is another internet platform which while it does not itself own the cars allows those who do to give lifts to others who need to make journeys. Such businesses enable us to make more use of existing capital, while creating opportunities for many people to supplement their incomes and/or become entrepreneurs.

In 2015 106 new buildings over 200 metres tall were added to city skylines, the first time the annual total has exceeded 100. 62 of these were in China and 76 percent of them in Asia, where 48 of the world's 100 tallest buildings are now located. Is this construction boom functional, or an example of what Thorstein Veblen (1925) called conspicuous consumption? The location and use of such space reveals much about the priorities of planners and developers. How much of the space and its use is related to perpetuating current patterns of consumption and display, as opposed to simpler and healthier lifestyles or the encouragement of entrepreneurship, creativity and innovation?

Directors should ensure the digital dimension is integrated into the physical environment. Should insecure status seekers be aiming to build the world's smartest building rather than its tallest? Does taller just mean greater isolation and distance from the natural environment? Businesses need to consider what role they should play in cities of the future. Might these be floating mega structures that can move like cruise ships to accommodate the seasons and climate change? Will home be wherever people are as they connect to work and their digital memories by mobile device?

The Environment and Contemporary Values

Today we still benefit from our inheritance from the past, whether bridges for railways or water canals for irrigation (Lalvani, 2016). In India past engineers planted trees at intervals along roads to provide shade for travellers. They thought about the implications of what they did for others? What legacy will we leave for future generations? Will we be remembered for mountains of rubbish, depleted natural resources and lost species? Are we planting trees that in time will reduce harmful emissions and lower temperatures in the garden cities that could result? Responses can also create new opportunities to demonstrate a caring capitalism and engage customers and communities.

Galbraith (1958) also questioned the wisdom of a focus upon producing consumer goods to satisfy

wants created by advertising. Do we need to change our consumer values and priorities to confront the difficult challenges and choices that we now face? I recall as a London Business School student a group being chided by a tutor for suggesting a corporate objective that was not sufficiently ambitious. He thought the revised version of aiming to control a significant proportion of the world's human and material resources was “not bad”. How many of today's students who are looking for independence and balance in their lives, freedom rather than control, and opportunities to reduce their environmental footprint would relate to such an objective? Do our corporate strategies and priorities reflect our past rather than the aspirations of younger generations?

Personal consumption patterns cause significant environmental damage. Large companies would be pilloried if they created a small fraction of the negative impacts. The livestock industry which satisfies our desire to eat meat accounts directly for 14.5 percent of global greenhouse gas emissions (and indirectly up to 30 percent if we take account of land use for animal feed) and 70 percent of all agricultural land, including a third of arable land (Rowe, 2016). Are we willing to change our habits and eat more healthily and sustainably? A combination of lower consumption and improved efficiency of livestock farming could make a useful contribution (Place and Mitloehner, 2010).

As consumers and investors should we give a lead by also changing our expectations of business leaders? Rather than reward those who increase the production of unnecessary and disposable goods, should the giving of awards and the writing of case studies high-light the leaders who reduce physical production and the use of scarce material resources and switch the emphasis from external trappings to helping customers achieve more of a sense of inner worth? When confronted with marble entrance foyers should we ask questions about the safety of the stone cutters involved?

Environmental Consequences of Production

Manufacturing and processing activities have always had an impact on the environment. Pollution resulting from an increase in industrial production in the Roman empire is evident in methane gas captured in bubbles in core samples from the Arctic ice sheet, a spike in this greenhouse gas that would not be seen again for 1,000 years (Beard, 2016). Unlike the Romans, we are aware of and can measure and track the impacts of manufacturing and production. We can run models that predict the consequences of their cumulative effects. How might cleaner technologies help? Should companies do more to develop them, use them or market, sell and distribute them?

Directors could reduce the environmental impact of physical good production be reducing or abandoning practices such as built in obsolescence. Could more elements be replaced as they wear out or upgraded? Should a board champion sustainable product design? The new product designs of a responsible business ought to be ethical and sustainable as well as profitable. How might a new design benefit other species such as birds and bats? Could engaging with the public and providing them with ways of increasing biodiversity represent a new business opportunity for garden centres?

Should we champion fulfilling activities rather than physical consumption? Whereas the production of goods might increasingly be undertaken by factory robots or local 3D printers, a shift of emphasis to creative endeavours, sport and keep fit activities could create opportunities for those who might otherwise be marginalised or made redundant to offer one-to-one personal services, engage in communal activities and experience a higher quality of life.

Bridges of Sports has found that publicly funded athletics facilities in many areas are under-used. What can and should companies and other bodies do to make people more aware of healthier and less environmentally damaging options? Could applications of performance support be used to increase environmental awareness and help employees, customers, supply chain partners, users and citizens to make more sustainable choices (Coulson-Thomas, 2012a & b, 2013)?

Reading the Road Ahead

Will displays of material wealth such as expensive and fuel-guzzling fast cars come to be seen as evidence of shallow self-obsession, concern with superficial appearance and ignorance of environmental issues? Could the manufacture and use of some products be considered a “crime against the environment”? If crime is so often opportunistic (Gash, 2016) will business leaders have the courage to exercise restraint in how they advertise and promote offerings, to reduce impulse and unnecessary purchases of items whose production and use are environmentally harmful? In comparison, team sports are shared activities. Like the creative arts they can be both participative and observed or enjoyed by others. A whole community can be lifted by a winning team. Such activities have a multiplier effect. Their externalities are positive. They enrich lives. Knowledge activities builds intellectual capabilities rather than consume physical resources.

Could one envision an inversion of life chances? While a new quality of life poor composed of lonely urban dwellers trapped in high-rise apartments look down at the life-shortening pollution of congested and dangerous cities, will rural dwellers revel in being close to nature and valued members of vibrant and connected communities, living longer, healthier, simpler and less materialistic but more fulfilling lives? We have choices. Rather than create new wants, entrepreneurs could contribute to the greater well being of many people by devising innovative and affordable solutions to address basic needs such as sanitation facilities and fresh water.

There are many areas to debate. How might we best internalise external costs? In relation to subsidiarity, who should do what at different levels from individual people and families to national governments? How do we ensure that corporate and political strategies are aligned (Bleischwitz, 2004)? What individual and collective action could customers and investors take to bring about desired changes? What role should professionals, banks and insurance companies play? Do we replace markets or work with them? To what extent could a barter economy, including the exchanges of time, replace or complement a monetary one? At an international level should the priority be upon agreements between governments, cities or global companies?

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