

## 19<sup>th</sup> World Congress on Environment Management

### Managing Environment and Climate Change: Transitioning to a Sustainable Economy

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The theme of the 2017 World Congress on Environment Management is “Managing Environment and Climate Change – Transitioning to a Sustainable Economy”. It is both optimistic and a worthy aspiration, but is it realistic and achievable? Is anyone managing environment and climate change, as opposed to helping to cause them or contributing to particular changes, being impacted by them, trying to do something about them or influencing and/or regulating certain activities relating to them? Are corporate leaders on the receiving end and responding rather than in the driving seat? Where is there scope for being proactive?

#### Achieving Sustainable Business Growth

Managing external developments in the contemporary business environment is a “big ask” for directors and boards, especially if a company is one of many possible players, and there are variables over which one has little or no control. For an entrepreneur or innovator “instigating” may be easier than managing, but many people and organisations are reacting to events, or trying to cope with them, rather than in any way managing them or having them under control.

Some companies, such as those in the business of solar power, are intimately involved in the “trying” category, and progress is being made. Renewable energy costs are falling. Some innovation is occurring. However, for many other companies and their boards, it is business as usual. Environmental and climate change debates can seem remote. Yet the affects of what is happening from mountains of rubbish to melting ice and retreating glaciers are clear.

Are there strategies that can be adopted within market systems to achieve sustainable business and development goals and “green growth”, or are new approaches and very different models required? Are directors focused upon and agreed about what “sustainable” and “green” mean in relation to the activities for which they are responsible? Is their thinking, objective setting and corporate strategy influenced by the United Nations (2015) sustainable development goals? To what extent will transformational thinking and further innovation be required if business and political leaders are to cope with contemporary challenges and contribute to collective responses to them?

Do the lessons of history give us cause for hope or alarm? The historian Arnold Toynbee (1969) has pointed out that over the ages, including during his own lifetime, many generations have faced severe challenges. Progress has not always been linear and civilisations have come and gone, but people have displayed varying degrees of resilience, and today there is greater connectivity and the means of more rapid role out of solutions that emerge. Some ancient wisdom may have been lost but our initiatives and responses can draw upon a more developed scientific and technological base.

#### Breaking Free of Entrenched Perspectives and Practices

If progress is to occur, is a shift of focus and change of priorities required? Is this possible to the extent of allowing us to satisfy the Brundland Report (1987) test of “meeting current needs without compromising the ability of future generations to meet their own needs”. At both corporate and national level leaders are addicted to models and patterns of growth that seem to require ever more of the same. Do people feel so obliged to deliver growth, that simpler and more affordable and inclusive options are not considered? Smaller may not be beautiful for executives looking for promotion to higher salaried positions. It sometimes appears as if whole sectors are in a rut. Where is the creativity and innovation? Who is going to champion more sustainable options and lifestyles?

The first priority for many leading construction companies is to maximise the margins and returns on expensive apartments and homes for an urban elite in expensive locations. The provision of cheap, basic and mass produced pre-fabricated and modular homes for the rural poor or those on the fringes of urban areas may feature in the speeches of some politicians. However, it is less likely to appear in the plans of boards looking for high profits from exclusive and prestige developments. Where is fresh thinking to come from in sectors like construction? Is new blood required?

Kerryn Higgs (2014) has questioned our contemporary preoccupation with growth in the context of a finite planet. League tables are invariably computed on the basis of the volume of current activities and there is often intense competition to be number one or within a group of leading entities. Some organisations have programmes and teams whose purpose is to improve their league table positions. What new forms of league table might persuade companies to play different games? How might reward and recognition policies be used to encourage a redefinition of success?

Graphical representations of outputs and achievement are supposed to point ever upwards. When many of the current generation of business leaders were at business school, case discussions invariably focused on increasing rather than contracting output. For political leaders a slackening of growth rates usually means fewer seats will be won at the next election. Are there other indicators such as quality of life and happiness indices that could re-frame public debates? Should one wait for a change of emphasis and priorities, or set out to be a catalyst in bringing them about?

### Stakeholder Perspectives and Requirements

Shareholders seek a steady and hopefully increasing flow of dividend income. How many directors would be re-elected if they announced a downsizing strategy of significantly scaling back corporate activities in order to reduce pressures on the environment? How many boards have active programmes to de-list in order to have greater freedom to pursue strategies that will make fewer demands upon scarce natural capital? Do family businesses and innovative entrepreneurs who seek crowd sourcing support have an advantage over listed companies in terms of freedom of action?

Most individual shareholders may be no better or worse than business leaders when it comes to being schizophrenic in their choices and a mismatch between thoughts, words and deeds. How many ethical investors or supporters of green parties are aware of the true cost of meat and have stopped eating it in order to reduce the greenhouse gas emissions of cattle (Rowe, 2016)? They may well be concerned about the environment and global warming, but when voting with their credit cards in the marketplace they may add to the pressures.

Must the environment and climate change almost always be discussed as a problem? Why do so many boards view shareholders as a constraint? With the scientific knowledge and ingenuity at our command should we be more positive and proactive? How many directors and boards actively discuss environment and climate change issues with shareholders and seek their support for using corporate capabilities to grasp opportunities to develop more innovative responses and solutions?

## Understanding and Anticipating Developments

Directors need to read the road ahead and consider the impacts of current trends. How will they affect customers and corporate operations? What could or should be done in response, either to address issues or take advantage of windows of opportunity that emerge? Short-term actions may be needed while longer-term responses are determined and changes of strategy and/or policy agreed? In some cases, one may be able to make projections and develop alternative scenarios.

For many companies there are significant areas of uncertainty. How will Governments respond with new laws and regulations? How determined will they be to make changes and over what time-scales? How would extra taxes and price rises affect the profitability of different offerings? For how much longer can certain activities continue? What if the public mood changes? What if people reconnect with nature and the external environment (Wilson, 1984)? Are there risks from not reacting, whether to a corporate reputation or of losing an early mover advantage?

Boards may have views and can estimate or guess, but they can never be sure of how other parties will behave, whether discontinuous change or an acceleration of a trend might happen at a tipping point, or if a high profile incident will occur. Might customer priorities and public opinion suddenly change? Where an established business might be defensive, and seek to preserve, project and protect existing investments and perceived strengths, more entrepreneurial and flexible ones might actively look for alternatives. Are there latent feelings and requirements that could be tapped and substitutes and that could be quickly activated or provided?

In relation to risk, might the threat of environmental damage linked to hacking and the placement of ransomware on compromised computer systems be regarded by criminals as an area of opportunity? Could failure to pay lead to the release of harmful emissions or the switching off of systems designed to protect the environment? Some boards may need to review cyber-security arrangements and be more willing to collaborate with law enforcement agencies (Coulson-Thomas, 2016a).

## Changing Direction

There is so much momentum behind current patterns of activity that stopping and/or changing direction may seem as problematic as steering a loaded oil tanker away from some rocks that have come into view. If it may be too late, one's own contribution is but a drop in the ocean, and markets reward those who carry on making hay while they can, business leaders have to be very committed to tell people to stop doing what they know and drop current activities that support their families.

A combination of incentives and penalties may be required. However, even if certain initiatives worked or looked likely to reign back activity that damages the environment, how committed would a Government be to enforcement that might lower growth rates and a country's international ranking, while at the same time reducing the Government's own income for spending on high profile projects that will buy votes? Are decisions that involve short-term penalties and which might prove unpopular with sections of the electorate likely to be postponed?

Where there are public policy options, policy makers should consult with those likely to be affected by changes and seek to work with them when considering how best to implement them (Agrawal, 2005). Scientific and technological breakthroughs are occurring. Consultation may reveal more of an appetite for positive, aligned and collective action than one might have expected based upon past experience. Have some policy makers and boards become too introverted and cautious?

## Understanding the Need for Collective Action

People and organisations do not need to act alone, either in responding to external developments or in providing novel solutions to emerging challenges. They can co-create, collaborate and co-operate. There are new and relatively quick alternatives to listing and share issues as a way of raising the finance that is required. Some of those who are and have been creative and innovative may enter for the Golden Peacock Awards for Eco-Innovation.

The need for collective action is clear. India and other countries need a strategy to meet their Paris Agreement (2015) on climate change commitments. There are biodiversity, coastal ecosystem and food, energy and water security challenges to address, new carbon capture, replacement and trading arrangements to consider, and economic, educational, financial, scientific, social and technological adaptation and mitigation measures to put in place. Are directors and boards aware of these issues?

How engaged are directors with environment and climate change related debates? For example, are solutions such as carbon trading shifting responsibilities and creating new problems rather than offering solutions (Lohmann, 2006)? How many directors even know what was agreed in Paris, what countries have signed up to obligations and how their companies might be affected? In relation to expectations, how many directors feel their responsibilities are primarily to owners and those who buy from them and work for them rather than the public generally?

The presence of diplomats at this year's world congress is evidence that in public Governments want to be on message in relation to warnings of the rate at which natural capital is being plundered, species eliminated and greenhouse gasses emitted. It may also herald a realisation that while they may be held responsible for the welfare of citizens in general, on their own Governments, especially those in democracies, are relatively powerless to reverse some trends and trajectories by acting alone and that joint Government-business action may be required. The challenge is ensuring that corporate and political policies and strategies are aligned (Bleischwitz, 2004).

Government departments and companies may both need to rethink certain strategies and policies as a consequence of how external developments are unfolding. Do they have the people and capabilities to deal with environmental issues and climate change? Might boards need to be refreshed to include people with more awareness of related issues and options? Is the time ripe for consultations with various stakeholder groups to better understand their priorities and requirements? Delegates at the forthcoming world congress on environment management will consider and discuss some of the issues and areas in which action is required.

### Secure and Sustainable Energy

The challenges are daunting, but should we be more positive about the opportunities? According to the International Energy Agency (2017) systematic and coordinated financial and policy support of clean energy technologies to the limits of what innovation allows could reduce greenhouse gas emissions to levels consistent with the mid-point of Paris Agreement (2015) targets. Does the will and commitment exist to provide the necessary support? Are Governments doing enough to meet their commitments and switch the emphasis to clean and renewable energy?

The leverage which a Government might have in seeking secure and sustainable supplies of energy, preferably from renewable sources, can depend upon its buying power and the extent to which power generation and distribution has been privatized. Private sector innovation may still be required to bring renewable costs to a level that does not put domestic companies at a disadvantage in international markets. Will this happen? Have areas been identified where breakthroughs could happen? Generating more energy from rural waste may make sense, but what would it take to secure the required collaboration? What combination of carrots and sticks might be needed?

A degree of diversification might be desirable from a security and resilience of supply perspective, but licensing requirements and other barriers to entry can lead to concentration and reduce innovation. Are there industrial strategies and/or regulatory policies, with related incentives and penalties, that a Government could introduce to help achieve a required re-alignment? How might vested interests respond? Are Governments equipped to make the right calls? Are infrastructure investments in areas such as transmission aligned with where innovation is likely to occur? Could more be done to convert biomass and agricultural and other waste to energy?

### Water Related Issues

Over a half of the body weight of most people is composed of water. It is a critical requirement for life. Many developments are exacerbating actual and projected water shortages. Water use in relation to its supply is already critical in many areas (Gleick, 2014). Climate change is increasing global vulnerability and the risk of water related conflicts. Integrated water resource management and conservation requires collaboration across multiple private and public sector entities. In some areas potable water is carried daily over large distances and water table levels in aquifers are falling.

Ground water has to be more carefully managed. How will major projects to replenish water tables and increase supplies from harvesting and new pipelines to interlinking rivers and building new desalination plants be funded? How will the more efficient use of water in agriculture, industry and the domestic arenas be achieved? Should one resort to bans, or use a relative pricing mechanism? What needs to be done to encourage innovation and entrepreneurship in this and other areas?

Water is an arena in which purpose and ambition can address a fundamental need and there is an urgent requirement for innovation and imaginative solutions. From a corporate, domestic, agricultural and industrial perspective, what can be done to use water more efficiently? Could greater quantities of water be recycled and reused? Are there alternatives to water in certain uses? Can crops be genetically re-engineered to require less water? Are there ways of changing local ecosystems or seeding rain clouds to increase rainfall in certain areas?

### Regulatory Issues and Concerns

The supply of energy and water, and the utilities generally, tend to be relatively highly regulated with market players in many jurisdictions requiring a license to operate. Regulatory and legal controls can be blunt instruments. If inflexible, they can inhibit innovation. In the environmental arena they may be difficult to develop, implement and monitor, can involve time and cost for all involved, and there is often a risk of unintended consequences (Mejia, 2009). If only periodically reviewed and updated they can also lag behind innovation and fail to address new possibilities.

What role should regulatory and other public actions play and how does one ensure they remain current and relevant? How should one protect, price and report the use of scarce natural capital? Should activities be rated and scarce resources be priced in such a way as to ensure that necessary, important and high value-added uses have a priority? Would it be better to focus upon incentives and other inducements to encourage a change of behaviour (Thaler and Sunstein, 2008)?

License conditions and regulations are sometimes sector specific. Addressing environmental and climate change issues may require coordinated action across value chains to make them more sustainable, or separate arenas where there are interdependencies, such as between the environment, climate change and health. For example, high levels of pollution can cause additional fatalities.

Board need to consider how to integrate legal, regulatory and ethical issues and concerns, their accountability for environmental and related matters, whether to seek carbon neutral and other

outcomes, and how to report their aims and achievements in such areas. What forms of environmental risk and impact assessment should be used? Should integrated sustainability reporting be adopted? Who should undertake these activities? How should pricing or related subsidies and taxation be used to achieve environmental goals (Kreiser et al, 2015, Tybout, 1972)? How should one rate, measure and verify what has been achieved?

### City, Town and Village Communities

Most Governments are also responsible for establishing urban and rural planning environments and relevant legislation. Urbanisation and the growth of cities can have a profound impact upon both the environment and our quality of life (Newman, 2006). How can we ensure the inclusive, equitable and sustainable growth of carbon neutral cities, towns and other communities and that longer-term migration flows are handled to benefit rather than harm the environment? What needs to be done to provide affordable housing, safe transportation and clean water?

Smart villages, towns and cities can offer opportunities for the monitoring of consumption and the delivery of various services to more connected people. With cities there are certain economies of scale (McConnachie, 2017). If these apply to areas like waste management and the more efficient use of energy and electric vehicles, the movement of people to more sustainable cities could be a positive development. Smart responses could include on-demand and shared transportation.

With property and infrastructure investments, the extent to which longer-term sustainability considerations and related externalities are taken into account can have a significant impact on the built environment (Stravoravdis, 2016). Do contemporary designs and plans provide enough scope for flexibility as situations, circumstances and imperatives change? If there are core civic amenities that need to be in place, could the development of modular forms of basic or standard infrastructure and services represent a significant global business opportunity?

### Waste Disposal, Management and Entrepreneurship

Human beings have a propensity to put their own interests first. While paying lip service to the environment and their local community, many of them would not volunteer to pick up litter and rubbish, or be willing to pay a significantly higher price for an alternative that caused less harm to the environment and/or contributed less to climate change. An active few might. But many won't. What can be done to support initiatives to clean towns and cities and achieve universal sanitation?

Handling hazardous waste presents particular problems. How does one ensure it is properly and safely managed? How should one protect people from exposure to it and from excessive noise and pollution? What mitigation measures should be put in place and how should these be funded? Our domestic waste and untreated rubbish can lead to rodent and other infestations (Belmain, 2016). Can we afford to be sanguine in the face of such risks and related public health problems? What forms of graded response are needed from what entities to cope with such challenges?

Could appeals to self-interests be a way forward? Where there are problems there are also invariably opportunities for those who are entrepreneurial. The recycling of separated categories of waste in urban areas can generate income and help to replenish the supply of certain materials. Some steel mills just process scrap. Food waste in rural areas can be used to generate electricity. Security concerns create opportunities for individuals and communities as well as companies. How does one best ensure integrated action across the various parties willing to act and contribute?

### Health Considerations

As already mentioned, failure to provide potable water, prevent pollution or deal with food and other waste can lead to public health problems. How many directors are aware that each year millions of deaths occur as a result of dirty water (Gleick, 2002)? Higher temperatures can lead to more deaths among those at risk and a larger number of unusual weather events. Will degraded ecosystems increase the harm such natural incidents and also some man made disasters can cause?

Over the ages certain plants have been found to be useful for medicinal purposes? What are the implications of a loss of biodiversity for human health? Have we already destroyed what could have been the antidote to a future epidemic? Have we depleted stocks of certain fish to levels that will be difficult to recover from? Climate change and water scarcity can make it more difficult for current agricultural practices to feed a rapidly growing population. Will science and innovation come to the rescue? Are we asking the questions that might provide the answers we need?

Across the board and a variety of Government agencies and public policy areas more positive, innovative and integrated action is required along with greater commitment to some initiatives already underway. Some responses such as genetic engineering to create more drought resistant crops have already proved controversial in some countries. How can we overcome the barriers to establishing and building more sustainable agricultural, industrial, leisure and tourism practices?

### Possible Future Scenarios

New challenges may arise. Might inter-generational conflicts become more significant? Younger generations could be the most adversely affected by a failure to address environmental and climate change issues, yet in some countries they have much less economic leverage than their parents and grandparents, and they are often far less likely to vote. Could they be energised to form a stronger lobby? Might customers and other stakeholder groups disaggregate into groups with widely differing views of the way ahead? Are there options that might appeal to some of these groups?

Could values change? Will drivers of expensive and fast cars be viewed as mindless and narcissistic plunderers of scarce resources? As automation, expert systems and 3D printing allow people to design and produce locally what they need, will the 'walking overheads' who prowl the corridors of air-conditioned head offices go the way of large bureaucratic organisations? Will people think in terms of fulfilling activities rather than jobs? Involvement in most of the creative arts is more sustainable than the purchase of many manufactured and processed products (Coulson-Thomas, 2017). Will we see a renaissance of local and community arts and craft activities?

Will a new generation of social entrepreneurs inspire and lead social enterprises and projects like bridges of sports, which aims to create a sustainable sports ecosystem across India? Unlike a polluting vehicle, arts and sporting activities can have positive externalities, as audiences and spectators as well as practitioners can participate. A whole community can follow and take pride in a local team. Simply watching and enjoying can be much less demanding of scarce resources than other forms of consumption and more uplifting.

Might a different business or market model be the answer (Coulson-Thomas, 2016b)? The barter and sharing economies offer many opportunities for more people to benefit from what we already have. Making more intensive use of existing possessions and capital helps to reduce the exploitation of scarce natural capital. Could such exchanges and sharing enable lower growth to deliver a higher quality of life as well as creating more caring, inclusive, independent and resilient communities?

Are market solutions possible? Could innovation lead to the mass production of affordable housing and the wider availability of potable water and sanitation? Do sustainable responses require more imaginative, responsible, transformational and visionary leadership? Are different strategies

required? Is green growth an affordable and practical possibility? Will fewer boards compound the problems we collectively face and more of them contribute to acceptable initiatives and desirable outcomes? How directors react to multiple challenges and the extent to which they are proactive and innovative when seizing related opportunities will determine our future quality of life.

#### Further Information

Details of the 19<sup>th</sup> World Congress on Environment Management can be found on:  
<http://www.iodglobal.com/19th-wcem-2017.html>

The convention is organised by the Institute of Directors: <http://www.iodglobal.com/>

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