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The Problem with *Green* ~ *the need for a new literacy*

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**ABSTRACT**

The ubiquitous use of the word "green" as a proxy for sound environmental endeavour, for energy efficiency, for all sustainable ambition has devalued the proposition it was meant to reflect. Being "green" can apply equally, it seems, to a tree hugger (in itself a term of derision or condescension) or a government (recall a certain prime minister aspiring to lead the greenest government ever). Yet, because of its hijacking by all sorts of spurious groups and intentions, the word "green" has become a liability.

An essential ingredient of good governance is the assumption of an innate trust between those who govern and those who are governed. The chaotic and sometimes deceitful use of the word "green", the tendency for it to be switched on or off as the mood swings, and the general assumption that it is a panacea for all things has reduced its trust value. Worse, the word "sustainable" prefixes any action that we want to be "green". Neither is adequately defined, yet each is used randomly by government, the media and the non-governmental organisations, without a sound basis and, seemingly, without thought.

We need a new literacy: a more rational basis for referring to all things "green" and "sustainable".

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1. It is hard to think of any aspect of human endeavour (from green Alphabet to the green Zone<sup>1</sup>) that has not been prefixed by some individual, group or government in the hope that the original aspiration for the notion of "green" would rub off by association. One of the more (possibly, most) irresponsible uses in modern times in the UK has been the hypocritical hijacking of "green" by the Coalition Government to be the "greenest government ever". Completely laughable if it was not so sad, and also very dangerous if the architects of that phrase have been genuinely seduced by that notion.
  2. In essence, the usefulness of the word "green" has run its course. It no longer has value. Indeed, it has negative value in that it diminishes anything described as *green* (whether or not that thing has any sustainable attributes). Even the climate change conference in Durban in December 2011 was not immune to such illusion, promoting the Green Climate Fund<sup>2</sup>. Surely "Climate Fund" would have been sufficient? Prefixing it with "green" added absolutely nothing.
  3. We should stop using the word "green" as of today.
  4. To put it bluntly, **the word now undermines every genuine attempt to do things differently, it marginalises or is marginalised. It is also contradictory**; there are several non-governmental organisations that espouse the cause yet appear unable to do simple things as part of that cause. For instance, CIWEM is the only chartered environmental body to hold the international environmental management system ISO 14001. How low does the green bar have to be set?
  5. But what to do? We need a different way to express the aspiration, yet neither uses, nor is associated with, the word "green".

**It cannot be another colour**, a new black, because that will go the same way.

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<sup>1</sup> The search engine rather than the film

<sup>2</sup> [http://unfccc.int/files/press/press\\_releases\\_advisories/application/pdf/pr20111112cop17final.pdf](http://unfccc.int/files/press/press_releases_advisories/application/pdf/pr20111112cop17final.pdf)

**It has to be simple;** not to demean but to allow inclusion. One particularly disappointing aspect of the word “green” was that it quickly became elitist; it was divisive rather than inclusive. It became a badge, and then just a mere token.

**It has to be intuitive** ~ one does not want to have to think about it ~ it has to be just plain obvious.

6. Before we come to what that could be, we need to look at the technical basis for which “green” became a proxy. We need to consider the word **sustainability**.
7. Google *sustainability* and you obtain practically 30 million references in a blink of an eye of which about 21 million discuss the definition. There are hundreds of one-liners.

From the original Brundtland definition<sup>3</sup>:

*“...development that meets the needs of the present without compromising the ability of future generations to meet their own needs”*

To the slightly quirky though no less valid comment by Mr Micawber in David Copperfield by Charles Dickens in 1850 (and slightly paraphrased):

*“Annual income £20, annual expenditure £19, result = happiness  
Annual income £20, annual expenditure £21, result = misery”*

8. Then, of course, we have the most bizarre definition to date ~ as dreamed up by the Coalition Government or its advisors, with its “*presumption of sustainable development*”. Charitably, one could sympathise. The Government was simply being current. How many times have we seen words prefixed with “*sustainable*” that have no semblance of sustainability ~ *sustainable* transport, *sustainable* economy, and that old chestnut, *sustainable* urban drainage<sup>4</sup>. Perhaps some are sustainable; perhaps not. They do not seem to be objectively tested. And, therein lies the problem, it seems that there is a reluctance, nay, resistance, to explain what is actually meant by this word. In UK planning, one does perceive that the repetitive use of the word *sustainable* is merely cynical because it seems to be used simply to avoid criticism (see postscript at end of this paper).
9. For instance, the Wiltshire Core Strategy<sup>5</sup> (the key planning document for the County of Wiltshire) is 382 pages and “*sustainable*” is intoned on most pages, several times, like some medieval chant. Questions relating to the Core Strategy were put to the full Wiltshire Council by the Campaign to Protect Rural England (CPRE) — **with no response**. CPRE had asked:

What, for example, are the defining features of *sustainable* objectives (for development)? What are the characteristics we should find in a *sustainable* pattern (of growth)? What qualities should we look for as we assess the *sustainability* of a manner (of managing transport)? How should we evaluate *sustainable* opportunities (for employment growth)? What should we understand by ‘a *more sustainable fashion*’ in the Glossary explanation of Sustainable Urban Drainage Systems? What sort of use is *sustainable* use of a green infrastructure network? How should we judge *sustainable* management (of waste) a *sustainable* practice (for building) a *sustainable* approach (towards transport) and a *sustainable* community?

10. Nowhere is any of the above explained in clear, unequivocal, verifiable terms. In short, it is mischievously misleading.

And this is repeated everywhere...

11. The Department for Environment, Food and Rural Affairs on its home page acknowledges that it “...is the UK government department responsible for policy...in areas such as: *sustainable development*...” yet when challenged by CIWEM concerning the qualifications of those charged with drafting the National Planning Policy Framework, the relevant government minister replied “...read the document...” To which there is, of course, no reference to the qualifications of the authors. So I guess we should conclude from the minister’s answer that those responsible for drafting the Framework had little or no qualification in matters related to sustainable development.

<sup>3</sup> World Commission on Environment and Development, *Our common future*, Oxford: Oxford University Press, 1987 p. 43

<sup>4</sup> <http://www.environment-agency.gov.uk/research/library/position/58911.aspx>

<sup>5</sup> [http://consult.wiltshire.gov.uk/portal/spatial\\_planning/wcs/pre-subconsult2012?tab=files](http://consult.wiltshire.gov.uk/portal/spatial_planning/wcs/pre-subconsult2012?tab=files)

And doesn't that show.

12. Because of that kind of attitude (not restricted just to the UK central and local government) it is clear, that "sustainability" in general, and its popular proxy "green" in particular, have been so devalued during the years that these terms can be used by any one, at will, with little or no scientific or technical training. It is time to say: stop this nonsense... but where to go next?
13. Among the 30 million Google references to *sustainability* and *sustainable development* there is a huge amount of agonising about how to rationalise the desire to be "sustainable" within our preferred context of consuming what and when we like, providing we can pay for it. It has been made far more complicated than it has to be, mostly it seems so that we can still do what we want (Business As Usual or BAU). **In short, we are happy to aspire to "sustainable" development, yet we are reluctant to change the way we do things to achieve that aspiration.**
14. It appears that we seem to know what is right and wrong (most of us have an intuitive understanding, if imperfect appreciation, of this) but cannot quite believe that it is necessary to change the BAU case. Most are prepared to switch off lights (to conserve energy) recycle a bit (to diminish landfill) grow a few vegetables (to show willing) turn off taps (to conserve water) perhaps even take a bus (if one lives in a town). Few are prepared or even able to go further. Some argue that greater change is the remit of government ~ yet we seem to lack the necessary government leadership.
15. Clearly change is necessary. But forget the touchy-feely, incremental steps of change of which we are so fond these days. Real and enduring change, deep-seated behavioural change on the spatial scale and timescale needed requires just two factors: a yawning abyss of no alternative (war, financial meltdown, pandemic) and a governing class with the wit to recognise that, the courage to take action, and the means to do what was hitherto relatively unthinkable. We do allow government to make unseemly change and commitments on our behalf when we (and they) believe there is no viable alternative; when threatened by an enemy, by a virus, or something else which will disturb our current, comfortable way of life (such as the current economic chaos in the European Union). A fundamental shift is needed to change the *status quo*.
16. Yet, we have a problem. Currently, we do not really believe we are living unsustainably. We see no yawning abyss. One moment we are told we have passed<sup>6</sup> peak oil and another that technology will be able to keep us going<sup>7</sup> for a few more decades. One moment that we have to get an agreement quickly<sup>8</sup> to keep global warming under two degrees and the next moment we can relax and sort it out during the next three or four years<sup>9</sup>. One moment we need to be concerned that China has most of the world's rare earths<sup>10</sup> tucked away and is playing its usual trade games and the next that two or three new mines<sup>11</sup> will come on stream during the next five years anyway. It is not surprising that the case for change is not well made.
17. There is no sense of urgency. There is no sense of pressure. **There is no reason to change.**
18. We have this underlying addiction to BAU that is phenomenally powerful. We have seen this played out recently three times on the world stage under the glare of billions of people in relation to climate change: at Copenhagen, Cancun and, more recently, at Durban. With leadership like that, we can rest easy in the knowledge that it is sufficient to pay lip service to a concept that has very little real resonance, certainly within the average day in the life of UK folk.
19. In the UK, water is pretty much on tap as required, light is at a flick of a switch, there is plenty of food in the shops, there is loads of stuff to buy on the internet and it is delivered the next day, the majority have at least one car, a house, a job, a satellite/cable TV, an iPod and are able to fly to Milan for the weekend for £ 9.99 ~ what's not to like?
20. Yet, there are so many thoughtful folk who are saying that this is an illusion and that it is fading. Yet, we still do not see it. If we know the problem and well-respected types have articulated the message in very clear, unambiguous terms, for years why do we have to wait for a significant event to change BAU?

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<sup>6</sup> <http://peakoil.com/forums/post1102841.html>

<sup>7</sup> <http://www.euractiv.com/energy/technologies-push-back-oil-peak/article-162800>

<sup>8</sup> <http://ipsnews.net/news.asp?idnews=105573>

<sup>9</sup> [http://unfccc.int/files/press/press\\_releases\\_advisories/application/pdf/pr20111112cop17final.pdf](http://unfccc.int/files/press/press_releases_advisories/application/pdf/pr20111112cop17final.pdf)

<sup>10</sup> <http://www.nytimes.com/2011/09/16/business/global/china-consolidates-control-of-rare-earth-industry.html?pagewanted=all>

<sup>11</sup> <http://www.sigmaaldrich.com/sigma-aldrich/technical-documents/articles/material-matters/the-rare-earth-crisis.html>

21. Why? Because the relenting, sometimes mis-leading and sometimes outright abused terminology of “green” has degraded the general message. So, when we come to talk about “sustainability” we are blind-sided before we even speak.

22. Most people in the UK, including our political elites, simply no longer really believe that:

- climate change
- ocean acidification
- stratospheric ozone depletion
- global phosphorus and nitrogen cycles
- biodiversity loss
- global freshwater use
- land-system change
- aerosol loading
- chemical pollution

... are urgent problems about which this generation needs to concern itself: at least not today...

23. We are not even really concerned about that other elephant in the room ~ population. Somehow we have the blind faith (like a child has in its parent) that somehow it will be alright. We are too big to fail. Even the United Nations Rio + 20<sup>12</sup> meeting, THE sustainable development meeting of all time, taking place this year, dodges the issue.

It lists its key themes as:

- Financial Crisis
- Food Crisis
- Migration
- Energy Crisis
- Water Scarcity
- Biodiversity and Ecosystem Loss
- Desertification
- Natural Disasters and the ability to prepare for and recover from them
- Achievement of the MDGs
- Globalisation
- Health Security
- Increased Resilience at national and global level
- Climate Security

24. Yet all the above issues are issues fundamentally because of population: population *per se* and population in the wrong place. Whilst climate change will have a profound effect on natural systems the impact on the human population would be less if it were not for the sheer mass of humanity many of whom live in dense concentrations, on coasts, and on marginal lands; challenging conditions increasingly exacerbated by climate change. The essential problem is one of too many people in absolute terms, and millions of us living in the wrong place. Whilst the UN Rio+20 themes list undoubtedly has population woven into it, by not elevating that aspect to fatal flaw status, it is simply being marginalised. When one weaves a fabric, the individual threads become lost.

25. Yet even population is not the real key, there is another dimension that is **the** fatal flaw ~ it undermines all good intentions at global level, at national level, at local level, in organisations and institutions worldwide and that is...governance. The UN Rio + 20 meeting needs only one agenda item. One item that could un-lock the problems of climate change, of resource depletion and of population. That agenda item is simply; governance and its current mediocrity. **That is the root cause and that is what we have to fix.**

26. No longer can we stand by while apparently earnest people (our world leaders) fritter away at the legacy we leave for the future.

27. At Copenhagen, we thought that if we assembled around 198 heads of state together, they would all agree to do the same thing because everyone thought it was the right thing to do. Our leaders could barely agree on anything worthwhile. Then that volcano<sup>13</sup> erupted about four months later, and that actually did more to cut our use of transport and the related carbon emissions, *etc.* in a few days than all

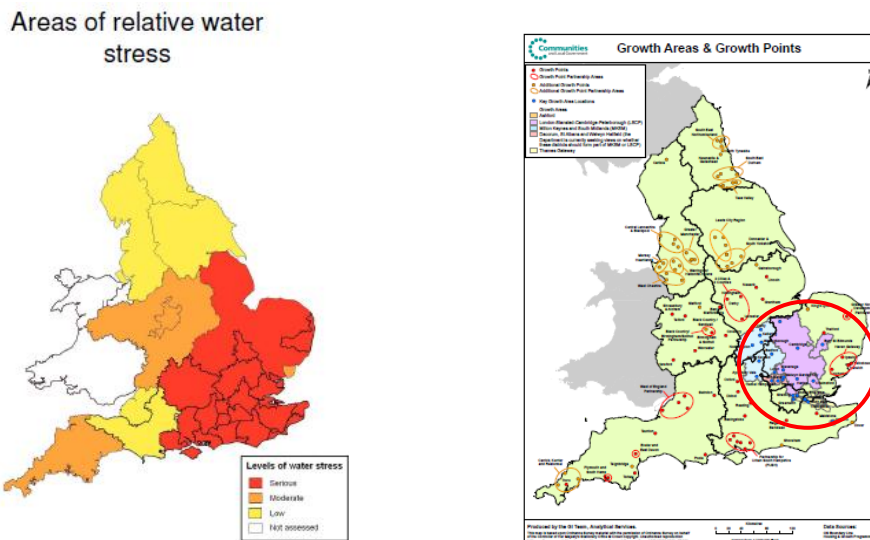
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<sup>12</sup> <http://www.uncsd2012.org/rio20/index.html>

<sup>13</sup> <http://www.youtube.com/watch?v=WVkdT1dcpoA>

the hot speeches from all the climate summits of the previous 20 years. **Part of our arrogance is the belief that we can do it with words and not with actions.**

28. More recently at the Durban climate change conference, delegates struggled to find a face-saving breathing space to leave tough decisions to a much later (and less public) date, without it appearing to have wasted everyone's time (which is exactly what it did do).
29. For an example closer to home, the recent UK Climate Change Risk Assessment<sup>14</sup> notes that flooding is likely to be the big issue in coming years. In the same breath we are told that we should expect droughts<sup>15</sup> with dire consequences. The underlying problem is not too much rain or too little. It is simply that there are too many people, and their facilities, living in the wrong place. Yet we are unable to shift that problem because we lack appropriate governance. The carrying capacity of the UK in terms of population is around 30 M, half of what it is today. With less people and more space, in which to be heroic, and the right governance we could lessen the economic and social impact of climate change. But we have gone so far into the southern-England-development cul-de-sac that it is hard to do anything other than engineer bigger open drains, have some stand pipes ready, and hope.
30. Yet, the writing has been on the wall for years, so we cannot say we did not know.
31. At a CIWEM 2008 conference: *Developing Sustainably ~ Drivers, Techniques and Case Studies*, we were shown the following two slides:



On the left is where water availability should not be taken for granted, so where do we want to build (on the right)? ... precisely where water availability should not be taken for granted.

32. We deserve better government. A better informed politician who is able to accept what needs to be done. But, equally, we cannot call for better governance if we, ourselves, are unable to articulate the message. We need to do better, as professionals, in how we deliver our messages.
33. Some argue that it is simply a communication issue and to leave this to communication specialists. Therein lies the problem; it is not a communication issue at all; it is one of deep-seated, technical fog. This needs to be addressed by sustainability professionals.
34. So, the aspiration has to be a simpler message, it has to be intuitive and it cannot be "green". Use of the word "green" is what has brought us here. Firstly, this "green" nonsense has to stop and then, secondly, we need a better calibre of politician to do what is necessary: the old school needs to move aside.
35. So, what is the new message, how do we communicate, as a profession, what used to be the "green" message? Remember, it cannot be another colour, it has to be simple and it has to have an innate feel to it. It needs to work across languages and cultures, and across societies of different complexity. It

<sup>14</sup> <http://www.defra.gov.uk/environment/climate/>

<sup>15</sup> <http://www.naturalengland.org.uk/ourwork/climateandenergy/climatechange/vulnerability/default.aspx>

needs, of course, to be understood by those in government, in business, in NGO world, and on the public street.

36. It is of course, *common sense*.
37. We need to make the **connection** between **what we need to change**, and **common sense**. We could argue that it is all about ***Common Sense for the Common Good for the Common Future***.
38. This leads us to the critical need to understand what is sustainable development? Again, this has to be relatively straightforward and testable. For far too long, it has been made far too complicated and somewhat esoteric. Sadly, “...*development that meets the needs of the present without compromising the ability of future generations to meet their own needs*” has failed us. We have been compromising the ability of future generations to meet their own needs for decades.
39. To be fair, the problem we have now was probably not foreseen. When the classic definition was elaborated all those years ago it was within the context of international-donor jargon where *development* really referred (and still does) to human development, particularly as it relates to poorer countries. Even in the 2005, *UK Sustainable Development Strategy* it defines the goal of sustainable development as “*to enable all people throughout the world to satisfy their basic needs and enjoy a better quality of life, without compromising the quality of life of future generations*”. Yet, of course, “development” as it is actually used here in UK refers to “infrastructure development”. Further evidence of this is the continued misguided use by UK Government (and its sustainability advisors) of the “*presumption of sustainable development*” (see postscript at end of this paper).
40. Even in international development where the phrase was first coined, sustainable development is being routinely used without a shred of evidence of sustainability.

Just two examples:

41. In Malawi, smallholders have been sucked into a world whereby they are “growing” sugar for a large multinational. They are not actually growing it of course; the land is cleared by an intermediary company which also supplies the highly complex irrigation technology, the various inputs and harvests the crop. The smallholder’s role is to watch the field. The input prices increase without control, if the technology breaks down only the intermediary company can repair it, at a cost, and the multinational sets the purchase price of the cane coming from the field. Many have lost their land as a result of the scheme where local chiefs take land and re-distribute it through a patronage system. Many smallholders complain that they get very little in return. There is little human development, what traditional skills existed are being lost and a neo-colonial dependency is being established. The UK taxpayer has been funding this, since this is an EU Scheme<sup>16</sup>.
42. In Namibia, the EU (and the UK taxpayer) is funding the water and sanitation sector<sup>17</sup>. There is ostensibly an issue with millions unable to access clean water or safe sanitation. Yet the real challenge is not access to, or availability of, water, it is that 80 percent of the black population is corralled north of a *cordon sanitaire*, whilst the rich, lush game reserves lie to the south, unfettered by people and their stock. The north is all marginal land which will be made more marginal by climate change. Namibia is not blessed with useful water resources. Its ephemeral rivers may or may not flow, Angola occasionally turns down the taps to make political points and Botswana, to maintain the resilience of the Okavango, is reviewing its (watery) largesse with Namibia. Sure, there will always be water resource pressures in sub-Saharan Africa and they WILL become worse but Namibia, through its natural resource apartheid, makes the situation for the northern peoples a whole lot worse. The real challenge is to allow the majority (black) population to spread more evenly over the country where there is much less resource pressure. But that would entail releasing some of that lush land... it is a question of governance.
43. The Club of Rome’s *The Limits to Growth*<sup>18</sup> in 1972 recognised that the life-sustaining role of the Earth could not withstand open-ended consumption of natural resources, and that poorer countries have a right to catch up. This inter-connected challenge was later encapsulated in the 1987 *Our Common Future*<sup>19</sup> produced by the World Commission on Environment and Development. Political action followed with the UN Conference on Environment and Development which brought world leaders together in Rio

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<sup>16</sup> [http://eeas.europa.eu/delegations/malawi/projects/list\\_of\\_projects/19251\\_en.htm](http://eeas.europa.eu/delegations/malawi/projects/list_of_projects/19251_en.htm)

<sup>17</sup> [http://www.eu-un.europa.eu/articles/fr/article\\_10182\\_fr.htm](http://www.eu-un.europa.eu/articles/fr/article_10182_fr.htm)

<sup>18</sup> <http://limits-to-growth.org/>

<sup>19</sup> <http://www.earthsummit2012.org/historical-documents/the-brundtland-report-our-common-future>

de Janeiro in 1992. Popularly known as the “Earth Summit”, the conference approved Agenda 21, an action programme for sustainable development in the 21st century. The leaders also approved the Rio Declaration, a set of principles to guide future multilateral environmental agreements.

44. These included the “polluter pays” principle, the precautionary principle, the right to (human) development, and the principle of common but differentiated responsibilities between rich and poor countries. The 1992 Earth Summit additionally put signatures to far-reaching conventions on climate change, biodiversity and desertification. So far so good...
45. Sustainable development is normally assessed by reference to its “three pillars” - economic growth, human development and environmental protection, at local, national, regional or global levels. **In practice, though, the emphasis has been on economic growth, with due regard to natural resources (environment) only where it does not compromise the overall goal of human development.**
46. The Millennium Development Goals offer a quantifiable basis of post-1992 assessment of human development. There has been significant poverty reduction in South America and Southeast Asia. The threat of HIV and AIDS has been brought under control and the incidence of malaria has been greatly reduced. The dream of a basic level of education for all is within reach. That is good news...
47. The situation is not so good in Sub-Saharan Africa and South Asia where hunger, malnutrition and extreme poverty continue to inflict hardship on approximately one billion people. Over 500 million small farmers remain too poor to deliver the environmental services for which they are well qualified – soil conservation, maintenance of the water cycle and protection of forests and natural habitat.
48. Industrialised countries have taken great strides towards the environmental exhortations of Agenda 21. Swathes of national legislation are in place, cleaning up the combustion of fossil fuels in power generation, the use of chemicals in industrial production and the quality of air and fresh water. Yet many scientists regard the rate of loss of global biodiversity as comparable to the mass extinctions of geological time. They also warn that commercial fishing may be redundant by 2050.
49. There been relatively little **sustainable** development since the first Rio Summit. **(Human) development has mostly been at the expense of the natural resource base.**
50. Consequently, there is much crisis language now, partly as an antidote to the indifference of those who govern. We talk now of food, water, energy and even more generally of resources security, though the latter tends just to be about minerals. The Stockholm Resilience Centre suggested (2009)<sup>20</sup> that three out of nine environmental boundaries critical to a self-rejuvenating planet have already been crossed.
51. This poor situation seems to reflect the degree of abuse, rather than rejection, of sustainable development. Indicators to measure progress of sustainable development have proved elusive, despite some efforts such as the Global Reporting Initiative endorsed at the 2002 World Summit on Sustainable Development in Johannesburg. There are many indicators that are used daily, though they are not focussed on limits. The approaches tend to lean towards favouring development at lowest financial cost and have resulted in degradation of the natural resource base<sup>21</sup>. It is still very much a work in progress. The lack of traction of sustainable development is nowhere more apparent than when considering climate change. The precautionary principle is conspicuous by its absence in national pledges to cut greenhouse gas emissions. Interestingly and somewhat buried is that in those final hours of the Durban climate conference reference to “*common but differentiated responsibilities*”<sup>22</sup> was deleted from the agreement. The Rio Principles now lie in disarray.
52. Of all the Rio Principles that have been shamefully neglected since 1992, the most damaging from the perspective of sustainable development is Principle 16: *National authorities should endeavour to promote the internalisation of environmental costs.* One measure of a national economy is gross domestic product (GDP) which is calculated as the value of goods and services produced within a country without adjustment for any change in environmental assets or citizens’ well-being. As an example, the construction of a new airport will deliver a positive result to a nation’s economic growth in GDP. Climate change, noise pollution, loss of habitat and the increase in inequality (airports benefit

<sup>20</sup> <http://www.stockholmresilience.org/download/18.408d96d2127f20319c180007627/src-annualreport-2009.pdf>

<sup>21</sup> [http://www.unep.org/greeneconomy/Portals/88/documents/ger/GER\\_synthesis\\_en.pdf](http://www.unep.org/greeneconomy/Portals/88/documents/ger/GER_synthesis_en.pdf)

<sup>22</sup> [http://cisdl.org/public/docs/news/brief\\_common.pdf](http://cisdl.org/public/docs/news/brief_common.pdf)

richer rather than poorer families) are all excluded from the calculations. Yet GDP is universally regarded as the most important of all economic indicators. The phrase “economic growth” has unequivocally positive connotations, yet almost invariably elevates policies which favour the present at the expense of the future.

53. So it is not surprising that *Towards a Green Economy* (UNEP, 2011)<sup>23</sup> recently concluded that: “over the last quarter of a century, the world economy has quadrupled....in contrast 60% of the world’s major ecosystem goods and services that underpin livelihoods have been degraded or used unsustainably.”
54. Our economic mechanisms do have much to answer for but the root dysfunction is governance.
55. We must also be aware that many countries do not necessarily see the idea of a “green” economy as something benign. Often the level of human development is so low and previous experience with the patronising munificence of the industrialised world has been so underwhelming that the non-industrialised world does not believe it can leapfrog traditional industrialisation into a brave new world of decentralised renewable energy, organic farms, resource-efficient industries, led by that old favourite, ecotourism. They also observe that the industrialised world is in no particular hurry to move towards it either.
56. Economic and electoral imperatives in Europe and the US have downgraded green issues. The experience of UN climate change negotiations suggests that the political elite are now content to shelve even the most apocalyptic scientific research. The Annual Conference on Sustainable Development in 2011 collapsed in disagreement. The timing of Rio+20 therefore presents an immense challenge. In January 2012, a first “zero draft” of the outcome document was developed: *The Future We Want* which simply focused on the green economy and the UN's own institutional framework. Sadly, the zero draft framed its proposals as “voluntary national commitments,” and possibly even sadder is the proposal to consider appointing “an Ombudsperson, or High Commissioner, for Future Generations.” Instead, should not every single head of state should be an ombudsman, and be held accountable?
57. A late inclusion in the zero draft (for Rio+20) is the proposal for a set of sustainable development goals which does not mention population or governance but the usual suspects e.g. biodiversity and oceans. It misses the point entirely.
58. This **problem of governance is universal, pervasive, self-serving and the key danger to all issues**, where ever we are, right now. From illegal logging in Madagascar and Papua New Guinea, to inappropriate flood control in Pakistan, to the release of toxic waste from rum refining in Jamaica, the problem of governance is all around. Yet each government maintains its actions are sustainable.
59. So, we need a relatively simple test of what is “sustainable”. The test has to be capable of application in almost any context, by almost anyone. It cannot require a PhD in rocket science yet it must have a sound scientific and technical basis. It must be understandable and it should resonate with common sense.
60. Until we begin to explore and obtain resources from outside this planet, it should be considered that our resources are whatever can be found or renewed on this planet. This brings us very quickly to the concept of a planetary limit, beyond which we cannot go.
61. At this stage it is probably useful to establish what we mean by resources:
  - Soil
  - Water
  - Air
  - Space
  - Energy
  - Food
  - Minerals
  - Biodiversity
62. These resources confer fundamental benefits to us (space to live, materials to build shelter, food to eat, water to drink, materials to trade and so on) and there is a critical level at which any given resource can no longer be replenished or maintain a beneficial use ~ a planetary limit. Put simply, sustainability is about staying above such limits. Of course, conceptually this involves setting a maximum of consumption that we are prepared to accept or finding alternatives. Whilst there is some debate about the effect of drawing down on these resources and the ability of these resources to respond, the outcome is that

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<sup>23</sup> [http://www.unep.org/greeneconomy/Portals/88/documents/ger/GER\\_synthesis\\_en.pdf](http://www.unep.org/greeneconomy/Portals/88/documents/ger/GER_synthesis_en.pdf)



sustainability is about resource-limitation, whilst recognising that the seductive concept of resource efficiency may simply translate into greater consumption.

63. A cautionary note ~ there is an illusionary and pervading sense that technology can decouple what we want to consume or do from resource limitation. But remember the Green Revolution in Pakistan in the 1960s to 1970s where a tremendous technological push fed millions. In retrospect all it did was buy some time. Sadly, that time has not been used well and Pakistan is rushing head-long into a catastrophe of food scarcity, exacerbated by climate change and geopolitical challenges, as its population continues to explode. Innovation simply put off the day of reckoning.
64. Sustainability is simply about staying within planetary limits, balanced population and good governance, and it is the latter that has the opportunity to bring about the first two. But when we talk about planetary limits we lose people ~ it ceases to become relevant. We have to frame it in a different way. Yet this must be backed up some understandable evaluation. We need an indicator of sustainability that can be used to evaluate pronouncements on government policy, strategy, sector plans, programmes, projects, and activities in terms of sustainability.
65. There is a basic presumption that matters should not be made worse by policy, strategy, plan, programme, project or activity. Then, we need to ask will any resources be adversely affected (depletion of a finite resource or exceedence of the regeneration rate of a renewable resource):
66. To be able to say if any one of the resources will be adversely affected will require authoritative evidence of the specific limit for that resource. The answers need to be considered in terms of scale, severity and magnitude (where magnitude itself is a reflection of importance, value, sensitivity, timeframe and reversibility) and moderated by the level of uncertainty.
67. This model appears, of course, to be quite similar to that of evaluating significance within the context of environmental impact assessment (EIA) strategic environmental assessment (SEA) or Sustainability Appraisal (SA). The prime difference is that in EIA, SEA and SA adverse effects can be mitigated, whereas the any negative value in the Sustainability Indicator triggers an unsustainable consequence and is therefore a fatal flaw.
68. The Sustainability Indicator<sup>24</sup> is about indicating whether or not some action (e.g. policy, strategy, sector plan, programme, project or any activity) can be described as sustainable. To be sustainable that action must not lead, or contribute, to depletion of a finite resource or use of a resource exceeding its regeneration rate. It is about getting the terminology “sustainable” right.
69. For each resource, one or more questions are asked to which the answer can only be “yes” or “no”.

#### **Soil**

*Will the proposed action exceed the rate of soil regeneration?*

*Will the proposed action lead to a reduction in soil quality?*

#### **Minerals**

*Will the proposed action lead to the reduction of a scarce resource?*

#### **Space**

*Will the proposed action lead to a reduction in landscape quality?*

*Will the proposed action lead to a reduction in tranquility or sense of space?*

*Will the proposed action lead to any incompatibility with local constraints?*

*Will the proposed action lead to a reduction of undeveloped land?*

#### **Water**

*Will the proposed action lead to increased scarcity of the resource?*

*Will the proposed action lead to a reduction in water quality?*

#### **Air**

*Will the proposed action lead to a reduction in air quality?*

#### **Energy**

*Will the proposed action lead to the reduction of a scarce resource?*

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<sup>24</sup> The Sustainability Indicator and the Guide to its use is available, upon request, from either author

Will the proposed action lead to use of the resource exceeding regeneration?

## Food

Will the proposed action lead to a reduction in the potential for food production?

## Biodiversity

Will the proposed action lead to a reduction of rare habitats and/or species?

Will the proposed action result in a reduction of scarce habitats and/or species?

The image displays two side-by-side screenshots of the 'Sustainability Indicator' software. Both windows have a menu bar with 'File' and 'Help'. The left window is titled 'Sustainable' and shows a 'Reset Indicator' button at the bottom. The right window is titled 'Unsustainable' and also has a 'Reset Indicator' button. Both windows contain a list of questions grouped by resource type: Soil, Minerals, Space, Water, Air, Energy, Food, and Biodiversity. Each question has 'Yes' and 'No' buttons. In the 'Unsustainable' window, the 'Yes' button for the first question under 'Soil' is highlighted in red, indicating that the proposed action is unsustainable because it would exceed the rate of soil regeneration.

70. To answer the above questions there are some dimensions to consider:

- The effect of the action should be related to the resource at point of extraction for a finite resource or at the point of generation for a renewable resource;
- Various terms e.g. scarcity need to be defined (parameters are provided in the form of a pop-up on the Indicator); it is suggested that a 50-year horizon is appropriate (see below);
- The evaluation is based on finite, renewable, and finite/renewable consequences of actions and is a limit-based approach allowing no nuancing, no balancing or trade-offs, no integrated this or that; and
- Any red result means that the action is not sustainable because it cannot be verified that resource usage is not without depletion (if a finite resource) or exceedence (if a renewable resource).

71. The Indicator can be used proactively (in the case of a proposed policy) or reactively (as in the case of a project). The Indicator does not preclude the use of EIA, SEA or SA for specific purposes provided it is understood that **these techniques cannot indicate sustainability per se**. Used appropriately, these techniques (SA, SEA, EIA) **could be used** to guide policy, strategy, sector plan, programme, project or any activity towards a state of sustainability.

72. **It is important to realise that the Sustainability Indicator does not stop development (human or otherwise)**. It merely ensures that the attribute “sustainable” **is only used** where there is clear evidence that this is the case ~ where a resource is being used and where it can be demonstrated that its usage is either such that there will be sufficient in 50 years (see 77 below) or within a replaceable limit. **And, “green” should never be used at all.**

73. So, there are no degrees of sustainability; it is an absolute because non-renewable resources are finite and renewable resources have a rate of regeneration. This helps the message to become clearer.

74. No more “more sustainable than x” or “less sustainable than y”. Either it is sustainable or it is not. **This forces the attribute “sustainable” only to be used where it can be demonstrated that there is clear evidence that this is the case, and only when it concerns resource usage.**

75. So the following are probably meaningless and should not be used:

- Sustainable approach to ...
- Sustainable management of ...
- Sustainable objectives for ...
- Sustainable opportunities for...
- Sustainable patterns of...
- Sustainable practice of...
- Sustainable use of...
- Sustainable transport
- Sustainable community
- Sustainable economy
- ... and so on

There is typically no way of proving that any of the above assures resource integrity.

76. Attribution **may be acceptable but requires evidence on a case-by-case basis:**

- Sustainable energy use
- Sustainable water use
- Sustainable air quality
- Sustainable food production
- Sustainable extraction
- Sustainable land use
- ... and so on

77. A word about availability of resources for “*future*” generations and satisfying “...*their needs...*” Assuming that humankind lives for many millennia on this planet then even currently abundant resources (e.g. some minerals) may become depleted. However, learning from our past human development, it can be anticipated that future needs will look quite different to our own needs. So, there has to be a point in the future which we, at this point in our own human development, can no longer take into account. Again, looking at history, going beyond 100 years is probably unrealistic, and in most cases perhaps 50 years is more appropriate as the horizon within which we should assume that finite resources should not be depleted. In other words we need to ensure that sufficient resources are available for 50 years.

78. Remember, there is no holiday from history; we are where we are. Yet we do need to act. As Giuseppe Tomasi di Lampedusa (of *The Leopard* fame) said; “... *for everything to stay the same, everything must change...*”

79. So, in conclusion, we are asked by the conference:

***Green Revolution: are we there yet?***

No. We are not.

***If not, why not, and what do we need to do to get there?***

We are not there because the messages of *green* and *sustainable* have been degraded and devalued to meaningless rhetoric. To get “there” we need to (1) find a different literacy to replace the “*green*” thing and (2) define correctly what we mean, and want, by the use of “*sustainable*”.

80. **And, finally**, we would argue that, as professionals, we have a duty not only to ensure we do not make the situation worse but also to champion, in our professional work, more accurate use of terminology and we would encourage our professional body, CIWEM, to lead the way on this.

**The Sustainability Indicator and the Guide to its use are available from either author**

*Postscript*

*A few days after the conference, the Government issued the revised National Planning Policy Framework. In its Glossary it still failed to define either “sustainable” or “sustainable development”. It still continued to refer to development as if it concerned only infrastructure. It completely missed the point about what is sustainable development in terms of depletion of natural resources. Any development that followed this Framework would undoubtedly deplete natural resources that are finite and, therefore, by default, be unsustainable.*