

GUIDE TO USING THE SUSTAINABILITY INDICATOR

There is a critical need to understand the nature of *sustainable development* and 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.

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 language 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*”.

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.

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. At this stage it is probably useful to establish what we mean by resources:

Soil	Energy
Water	Food
Air	Minerals
Space	Biodiversity

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

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.

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).

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. 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. The Sustainability Indicator 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.

For each resource, one or more questions are asked to which the answer can only be “yes” (unsustainable) or “no” (sustainable).

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

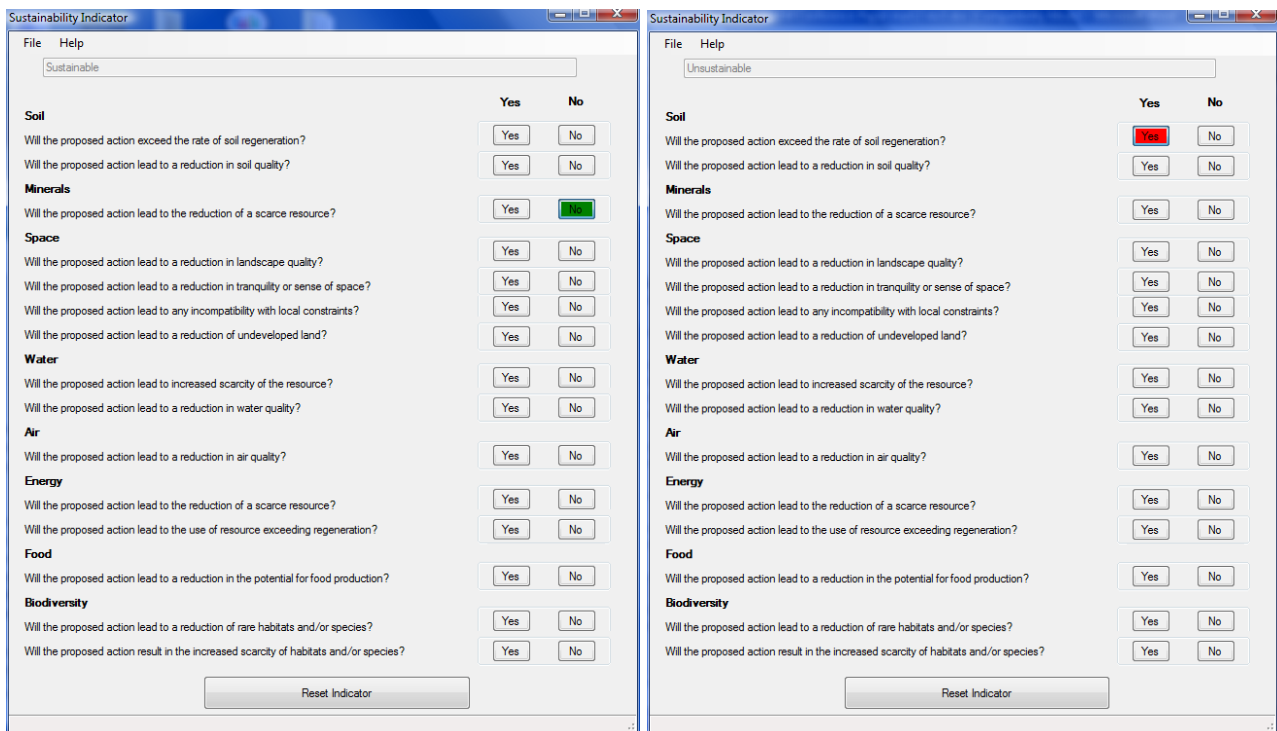
- Will the proposed action lead to the reduction of a scarce resource?*
- Will the proposed action lead to use of the resource exceeding regeneration?*

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?*



Hover the cursor over the questions will trigger a pop-up which provides further information about what the question seeks to understand and the kind of evidence that is needed in order to support a “no” answer.

In addition, to answer the above questions there are some particular 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).

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. **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, or within a replaceable limit.

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. 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,**

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.

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

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.

This is a beta version of the Indicator and the designers would appreciate comments to improve its usefulness:

Dr Richard Pagett, FutureStates (Global) Limited ~ secure@FutureStates.com

Neil Cousins, Five Oceans Environmental Services Limited ~ neil.cousins@5oes.co.uk

