

Professor James Curran MBE

Chief Executive, Scottish Environmental Protection Agency (SEPA)

In an ideal world traffic lights should always be green

Overview

In this lecture, Prof Curran outlined how SEPA is working to try to create a more sustainable Scotland. This includes changes to environmental regulation and proposals on a new charging scheme, turning the ecosystems concept into a business model and citizen science and volunteering. He explained how these developments are linked to what they see as the needs and opportunities in Scotland for social inclusion and the resulting benefits for public health and sustainable economic growth.

Introduction

In opening his talk Prof Curran set out his aim of persuading us that regulation is good for us but that there may be better ways of doing it that make us all healthier and happier. Establishing his credentials for speaking to an audience interested in health he explained that a lot of SEPA's work is directed at human health, for example, work around bathing water, air quality and radiation.

Over the last year there has been increasing rhetoric around the need for de-regulation. We are familiar with phrases such as the "the red-tape challenge" and the "bonfire of the quangos". Prof Curran however stated that he is proud to be the Chief Executive of a regulatory quango for the possibilities this creates. He posed the question: do we think regulation is an obstacle to business?

Prof Curran explained that 20 years ago the "Porter Principle" stated that good regulation is a stimulant for business. In an ideal world we might not have any regulation; we might not need traffic lights at all. However, this would be very risky unless people really understood the Highway Code and, even more importantly, took a bit of care of each other. A recent report looking across Europe and the USA indicates that Porter is in essence correct. There may be a time-lag as critical investment may need to be put in early on but over time good regulation pays off.

Productivity in Great Britain is lagging by 20% compared to other comparable countries. One good way to address this is to get businesses to think about their resource and energy efficiency. Very simple consideration of this can quickly lead to a 10% increase in productivity. This is good for business, good for Scottish energy, and good for the environment.

Prof Curran suggested that perhaps it is time for an MOT for business. Lots of public money is going in to provide advice about energy and resources so maybe once every five years businesses should be required to look at their environmental performance. However, one barrier is the level of detailed advice that an individual company would need. He suggested that there is an opportunity here for business to be giving quality advice. One example from the past is the Double Glazing Quality Advisory Service. We need models like this with a strong commercial base.

There have been lots of changes in SEPA over the past few years and several consultation exercises. SEPA have suggested that their main purpose should be broadened to include “sustainable economic growth”. This has been criticised by some campaigning organisations on the basis that “sustainable development” is a hard enough concept without adding the complexity of working out what “sustainable economic growth” is. Prof Curran thinks we should know what this means. From his perspective they would then have a right and a duty to get involved in economic arguments.

Prof Curran set out the context for SEPA’s work as an agency in a complex world. They may be seen as a policeman at the crossroads of environmental, economic and social issues. These issues all have boundaries and if any of these boundaries is reached then there may be a tipping point. We are probably already over the boundary for climate change and also for bio-diversity/species loss. This view has links with Gaia theory and models of living within sustainable limits. Any actions as a regulator need to take account of this complexity and the multiple interactions and potential multiple benefits. This last point is one of the main themes for this talk.

There are lots of different perspectives on sustainable development. Prof Curran is frustrated when this is described in terms of “trade offs” and thinks this will never lead to the results we are looking for. His view is that what we need to do is look at synergies.

One example is SUDS – Sustainable Urban Drainage Schemes. These are now in place all over Scotland and a big piece of work is taking place in the East End of Glasgow. Drain offs from roads which are potentially polluted with oil etc are held in ponds and ditches and go through a natural purification process before finally going into burns. These schemes also contribute to flood risk management, the ponds are real amenities in some areas and are refuges for bio-diversity. What we see are multiple benefits.

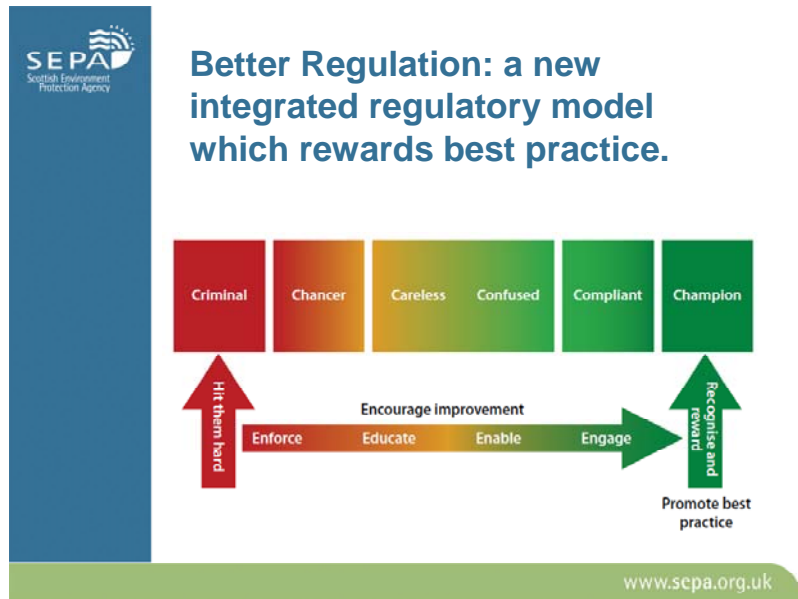
So in this seminar Prof Curran would talk about:

- An approach to better regulation
- Ecosystem services
- Citizen involvement; citizen science

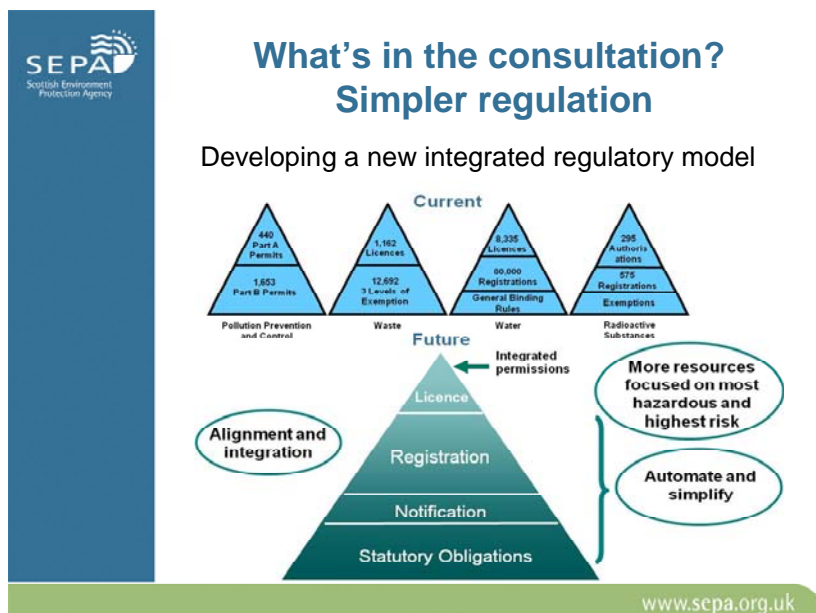
An approach to better regulation

Prof Curran explained that he is happy to use the business language of “customers” and the technique of “segmenting the market” in thinking about SEPA’s role as a regulator. At one end we have champions such as the Scottish whisky industry who have done a complete turn around and now go well beyond what they are required to do by law and are marketing themselves in terms of Scotland’s environment. At the other end are real criminal elements. For example, the waste industry which has been infiltrated by criminal gangs. For better regulation, interventions and penalties need to be customised according to these different types of “customers”.

There have been 150 years of accumulating environmental regulation. SEPA's new building is being called the Angus Smith Building. Angus Smith was born in Glasgow and was the first ever public environmental regulator appointed by Queen Victoria in 1852. He identified and named "acid rain" and went on to also inspect rivers. As is often the case we don't need to look very far to find someone Scottish at the forefront of important developments.



The current system of regulation is very complicated and difficult for businesses to handle. SEPA is just one of multiple regulators business has to deal with. SEPA wants to at least make their part much simpler and to then use a risk based approach. For example, on one hand you might simply want notification of domestic septic tanks as there is a low level risk of water pollution if you get many in one area. A large chemical plant on the other hand is inherently risky and would need more complex registration and licensing but this risk might be mitigated by its location or past history of regulation.



This legislative process is underway and SEPA understand that it will be implemented shortly. The result will be a much simpler and transparent regulatory approach based on risk rather than being process driven. This new system will be simpler for business.

The current funding of SEPA is also very complex with over 14 different licensing schemes. They would like to simplify this and also make it more flexible.

This may include a "use of environment resources charge". This was supported in their recent consultation exercise.

Ecosystem services

Prof Curran went on to describe the concept of "ecosystem services". This is an expression of what the environment and its natural systems do for us. For example, the role of bees in

pollinating or the ability of rivers to process effluent and self cleanse over a short distance. There are a whole range of these services and they are all free. This means we don't think about them much but a value can be put on them. SEPA did an exercise some years ago and came up with a total cost of £23 billion/year which at that time was a quarter of GDP. However, over 44% of these systems are in decline and this is worrying. Environmental protection is very cheap in comparison to the value that these systems are bringing. We are damaging these systems at our peril.

Thinking in these terms and the different areas that make up the £23 billion SEPA has adjusted its science model to better match the value of these systems so that more attention is being given to the most important ones.

This thinking also leads to reflection on the possibility of a "use of the environment charge". One could consider that businesses that are benefiting from these ecosystems being in good order could contribute a fixed charge to the regulation that protects them. For example, it is the tree growing industry that benefits from there being no acid rain, so should they contribute to the regulation needed to ensure this? Is this any different from mobile phone providers paying for the protected space of the 3G and 4G electro-magnetic sector? This is a current area of debate.



Citizen involvement; citizen science

Prof Curran went on to ask the question of where the public fits into all this? He thinks it would be good if the people of Scotland understood the science involved as this would lead to people increasingly taking responsibility for what needs to be done to protect the environment. This includes the urban environment as well as the rural one.

SEPA have put in place a number of pilot schemes involving the public. There is huge potential in getting people involved in environmental observing. These schemes involve partnerships with other organisations. Some are fronted by non-governmental organisations as they are much better at doing the public contact.

One example is the "riverfly project". This has asked anglers (the most popular past-time in Britain) to survey the invertebrates in the rivers they fish in. By observing a very limited number of species SEPA can tell the levels of pollution in a river and pick up early warning signs. They have thousands of anglers doing this and are able to survey more widely than they would ever have been able to with their own resources for much less. SEPA's commitment to the anglers is that if something is found then they will respond immediately to address the issues.



As well as doing more with less the really exciting thing about this project is the social amplification that comes with using the anglers. They are totally committed to their rivers. The volunteers begin to understand and appreciate and then take personal responsibility for the environment. There are lots of additional community benefits. There is evidence that environmental volunteering is one of the best activities for

increasing community cohesion with all the resulting health and social benefits that we are discovering that brings. In addition there is evidence that it also leads to more entrepreneurship and increasing community investment.

Prof Curran would also like to get people involved in measuring air quality. Air pollution is something that is still killing people in Scotland. People don't really understand this issue and so it is difficult to get anything done about it. He believes that involving the public in the monitoring would help that. Solutions to poor air quality are related to sustainable transport and active travel so again there are potentially multiple benefits to addressing this.

These kinds of projects are giving people the opportunity to be involved in creating the cities and places we want to live in rather than those we are given. There are lots of links between this work and public health. It is known that in the main environmental degradation is related to socioeconomic deprivation (although this is occasionally the reverse for example there is very poor air quality in some upmarket areas). There is an important argument about environmental justice. There are also other direct links. For example, looking at the risk management of flooding in ways that do not ruin the amenity value of a piece of water and may actually improve access with all the multiple benefits this brings. This is being addressed at White Cart Water and in the Clyde Valley.

It is in this area of work that SEPA genuinely sees its most important contribution. Prof Curran ended with a quote from Sir Harry Burns: "The social and physical environment must be comprehensible, manageable and meaningful otherwise the individual will experience chronic stress." Prof Curran concluded by stating that he agreed with every word of this and if we can reach this ideal situation then maybe we will be in a position to switch all the traffic lights to green.

The views expressed in this paper are those of the speaker and do not necessarily reflect the views of the Glasgow Centre for Population Health.

Summary prepared by the Glasgow Centre for Population Health.