

**PIU Presentation 14 Dec 2001**  
**Charles Secrett,**  
**Director,**  
**Friends of the Earth.**

**What Steps should Governments be taking in Communicating with and Engaging the Public More Effectively on the range of Complex Risks that we all face?**

For openers, I would point out two imperatives: first, recognise that a strategic and holistic approach is likely to succeed best when dealing with the outcomes of chaotic and complex systems - it is these types of outcome that frequently take the shape of risk or threat. Surprise and unpredictability are two features of this type of system behaviour - whether environmental, economic or societal (all complex, interacting systems). Sustainable development as a policy framework provides the necessary holistic perspective.

Second, engagement in Anglo-Saxon culture (political and social) like Britain's is too often of the oppositional kind. We prefer a type of Hegelian dialectic, where thesis/proposition is countered by anti-thesis/alternative, and the eventually synthesis emerges. We rely a great deal on the analysis of experts, and a top-down approach to make up our public minds: it is much more a command-and-control political model than in other cultures. It is very different, for example, from a Scandic or Dutch approach, where parties from government, the private sector and societal groups engage around full discussions and consideration of alternatives in the round, and almost as equals in terms of input. Our representative democracy needs to be complemented by new forms of participatory democracy and mechanisms for meaningful engagement with 'the public'.

For example, real world experience teaches people that experts and officials get it wrong too often to trust their analysis of risk and threat - think salmonella, BSE and F&M.. For decades, the public watched as 'x' exposure to nuclear radiation standard be declared safe, then lowered to 'y' and declared safe, then lowered to 'z' and declared safe; until now no known exposure to nuclear radiation is deemed 'safe'.

This no more inspires confidence than photos of a former agriculture minister (whom I have a great deal of time and respect for as a politician of principle and integrity) stuffing a greasy beefburger down his young daughter's throat to reassure us that beef was BSE safe.

Communicating and engaging effectively (on anything, not just complex risks) all boils down to trust - and, here, the mechanisms to assess, debate and decide on risk with people, not at them.

I have based my presentation on three sections: **Examples of What Not to Do; Useful Sustainable Development Principles to Apply in Risk Assessment (and Communication and Engagement);** and, **Principles of Best Practice Communication and Engagement.**

## **A) Examples of What Not to Do**

### *1) Use misleading everyday comparisons*

F&M: By April 6<sup>th</sup>, official figures indicated that pyres had released 63 grammes of dioxins (88 grammes released by all of Britain's biggest factories in a year. Geoff Hoon, Minister of Defence, BBC1's Breakfast with Frost (April 23, 2001), the risk from dioxins from foot&mouth pyres: "I have seen reports which compare the burning to the equivalent of two bonfire nights - it is important to put this in context."

This type of comparison, between innumerable small point sources (millions of bonfire night bonfires) and a few massive pyres with thick plumes, gives absolutely the wrong assessment for people living downstream of the plumes; particularly those living underneath and nearby, and who rely on locally produced milk or other dairy products, for example, from animals grazing under the plume fallout.

### *2) Put out official advice before the research is finished*

SCIMAC GM Crop Separation Distances: For certified seed crops (same species); registered organic crops (s.s.); and Non-GM crops (s.s.) - oil seed rape ( 200m; 200m; 50m); sugar beet (600m; 600m; 6m); fodder beet (ditto); forage maize (200m; 200m; 200m swetcorn; 50m forage maize). Research and experience shows that pollen travels much in reasonable high levels. Research from the Scottish Crop Research Institute shows cross pollination at 5km.

The Advanta seeds contamination of last year was brought about where the separation distances (according to Advanta) were also over 5km (the level was 1 to 2%). Interestingly the EC is proposing new separation distances for producing seeds; and to ensure seed purity for oilseed rape they are suggesting distances of 5km to keep contamination down to 0.3%.

### *3) Make extreme statements*

In Spring 1986, the Energy Minister, Peter Walker, as the Sizewell B plant was being considered, and nuclear waste problems mounting, declared that nuclear power was "the safest form of energy known to man". A few weeks later, in April, the Chernobyl accident happened.

With regard to dioxin exposure in fish oil, the Chief Medical Officer, Sir Kenneth Calman, said in May 1997: "I welcome the fact that the levels of these chemicals are generally falling. Levels in food are so low that they pose no risk to health". By June 1998, a WHO international panel of experts advised the WHO to cut its recommended safe limit for dioxin intakes by 60 - 90%. By November 2001, the Government's expert Committee on Toxicity recommended a fivefold cut in dioxin safety limits. The review led the Food Standards Agency to admit that "about one third of the UK population may exceed the TDI in their daily diets".

#### *4) Draw irrelevant comparisons*

On 16 August 2001, Government officials rejected research pointing to an increased risk of birth defects for babies born near landfill sites by stating that “the risk is less than that caused by cigarette smoking. Whatever the relative risks, this reassurance is completely irrelevant to the issue given that, for most expectant mothers, foetal exposure to harm from landfills is an involuntary and unknown risk.

#### *5) Let Government departments act independently of each other or give out conflicting information*

Regarding risk assessments from brominated flame retardants, the Department of Trade & Industry released a report in February 1999 stating that flame retardants do not pose significant risks to health or the environment. Consumer Affairs Minister Kim Howells described the report as a “very important contribution” to the debate on flame retardants. However, DETR officials were angered by the report’s publication, which was sprung on them at short notice and prejudged its own risk assessments. By September 2000, a ban on brominated flame retardants was proposed following EC risk assessments.

Joined up government (between departments and agencies) is a very important operating principle to communicate effectively and engage effectively; and, to build up trust.

### **B) Principles for Sustainable Development (adapted slightly and taken from ‘Defining a Sustainable Transport Sector’, The Round Table for Sustainable Development)**

These are other useful operating principles to underpin action, communication and process.

#### *1) The Precautionary Principle*

This is often misleadingly described as the do-nothing or paralytic principle, because some inevitable risk means that action will never be taken and government will be paralysed.

The precautionary principle recognises that where there are threats of serious or irreversible damage to the environment or human health, the lack of full scientific certainty should not be used as a reason to delay taking cost-effective action to prevent or minimise such damage.

In many instances, scientific knowledge is not sufficient to predict absolutely how, when or why adverse impacts will occur as a result of development, or what their effect may be on society or ecological systems. Nevertheless, we often know enough to know that there is a serious risk that some impacts are likely to lead to unacceptably high costs, which are best avoided. The principle can be used to help both present and future generations meet their needs. For example: the principle can justify actions to curb potentially dangerous pollutants such as health-threatening traffic fumes, or carbon dioxide emissions that contribute to global warming. There should be reasonable evidence that these actions are necessary. In a sense, the principle is about being ‘better safe than sorry?.

## *2) The Integration Principle*

The integration principle recognises that environmental and social requirements, and not just economic calculus, must be integrated into the definition and implementation of all areas of policy-making.

In other words, the principle seeks to ensure that there is a common sound environmental and health basis for determining policies, whatever the sector. By doing so, conflicts between otherwise contradictory policy objectives can be avoided, and the likelihood of marginalising essential environmental and related social concerns is minimised. These frequently result, for example, when economic policies, and actions to achieve them, fail to take into account environmental protection or resource conservation goals. Although the principle has been usually applied to public policy-making, it is equally relevant for the private sector.

## *3) The Polluter Pays Principle*

The polluter pays principle recognises that the costs of preventing or cleaning up pollution and waste should be borne by those responsible for causing the pollution and waste, and not by society at large.

In many cases, the people, firms or Government Departments and Agencies who cause damaging pollution or waste natural resources do not have to bear the full environmental or social consequences of their actions. These situations occur when the adverse impacts are dispersed or difficult to quantify, and when market forces or public policy encourage such behaviour. The polluter pays principle can be used to decide on regulatory or fiscal penalties and incentives, which encourage those responsible to curb their damaging activities and stop treating the environment as a 'free good'.

## *4) The Preventative Principle*

The preventative principle recognises that it is better for society to avoid incurring known costs that result from development activities which seriously damage critical natural or physical capital, or human health.

Unless there is a presumption against causing serious adverse impacts, and their associated costs, it is unlikely that the full economic and social value of physical and environmental goods, resources and services will be realised by society. As the precautionary principle applies to threats and risk, so the preventative principle should apply when known damage or degradation will result from development. There is a price to pay to repair such damage; it makes sense to avoid the costs in the first place, if possible. This does not mean that environmental resources cannot be used for economic or social purposes. But it reaffirms the importance of using natural resources sustainably, operating within critical ecological limits and conserving critical natural capital. In other words, the principle encourages society to act on the basis that 'prevention is better than cure'.

### *5) The Participation Principle*

The participation principle recognises that an essential prerequisite for achieving sustainable development is to encourage widespread and informed public participation in decision-making.

The planning system offers one, albeit often unsatisfactory, way of involving people in the development process. Agenda 21 emphasises the importance of developing new forms of participation, so that all social groups have the opportunity to be genuinely involved in decision-making. Providing ready access to relevant information held by statutory authorities is another vital need to fulfil. With participation encouraged on this basis, there is likely to be committed public and commercial sector support for sustainable development objectives and policies to achieve them. The more that decision-making processes are transparent, and accountability ensured, so the greater the likelihood of securing that necessary commitment.

Far from weakening the planning system of engagement the Government should be considering how to strengthen mechanisms for engagement in decision-making. It would speed the process up if communities felt involved from the beginning, in assessing issues, options and choice of final decision.

### *6) The Substitution Principle*

This simply says that, where there is an option choose the least risk option, unless the affected public/communities assent otherwise (see below).

## **C) Principles of Best Practice Communication and Involvement**

It is important to understand how communities see risk, in order to be able to communicate effectively about risks.

General principles now accepted re public assessments of risk include: involuntary; inescapable; form of death/illness/injury arising dread; unfamiliar; poorly understood by science; identifiable victims; damages children or future generations; hidden and irreversible; contradictory statements from 'responsible' sources. Factors like these help ordinary people gauge the 'quality' of the hazard - and this is different from the 'scientific' assessment. I have appended some best practice dos and don'ts below (from the New Jersey Department of Environmental Protection: Hance, B. J., Chess, C., Sandman, P. M. 1988, *Improving Dialogue with Communities: A Risk Communication Manual for Government*).

Principles that should underpin strategic risk management decisions and communications.

### *1) Step Out of the Box*

UK needs to meet energy demand - What power can we provide at the least risk to the environment or human health: typically the question posed by officials. Real question: how do we provide energy services that people require (warmth, light etc) in their houses/offices etc. Answer therefore may not be a new power station but demand management and energy conservation.

UK needs to grow and supply food - What is the least risk pesticides we can use to keep crops safe from attack? Real question: how best can we produce the amount of safe food that we want. Answer therefore may be through alternative growing techniques (organic), better farm management or biological control.

The strategic starting point should be to focus on the service to be provided, the need for this service, and answering what is the best way to provide this service. The substitution principle leads to the safer option being chosen to provide the service required.

*2) Be honest about scientific uncertainty.*

State the gaps in scientific or other knowledge/data used, and be transparent about assumptions. This in part means using simple and identifiable language, examples and argument. Where significant assumptions have to be made, ensure greater public participation in deciding what the assumptions are and why they need to be made.

Implement the precautionary principle until data gaps are small enough to allow a robust decision. What is a 'small gap' is a judgement call. Another reason why discussion and decision-making mechanisms must draw on both representative and participatory models of engagement (political and civil society).

*3) Decision making and risk assessment must be independent.*

Experts and scientists involved must be independent and seen to be independent. Moreover, those who profit from a decision must be separated from the final outcome (although they may well need to be involved in the process of discussion and recommendations - here balance of representation is required; eg on official advisory bodies). However, with industrial processes or technologies for example, the polluter pays principle should be implemented; and those who stand to profit (eg industry or government) should pay for pre-surveillance/monitoring, data gathering and post-surveillance/monitoring.

*4) Need must be justified in the context of future generations, where the risk or hazard has inter-generational consequences.*

For example, persistent or self-replicating technologies (such as persistent or bio-accumulative hazardous chemicals, radioactive discharges and waste materials, and genetically modified crops) will/are likely to impact on future generations, regardless of whether those future generations wish to use them.

Friends of the Earth argues that properties such as persistence or bio-accumulation are unacceptable hazards - although we accept that temporary derogations from bans may be granted if societal need - which is a decision requiring wide societal input - is demonstrated.

*5) The public must have a full right to know about the risks or hazards (technological, ecosystem change or otherwise) that they are exposed to, and rights to participate.*

These rights are guaranteed under the Aarhus Convention. They are imperative to deliver participatory mechanisms, but also because they are necessary in order to make personal decisions about what personal action to take to reduce exposure or risk further than society as a whole decides is appropriate.

Here, another informal principle, the *Proximity principle* is a useful guide. The Proximity principle recognises that those most exposed to a proposed new risk or hazard should have greater rights to be involved in discussion or decision-making than other communities. In Finland, for example, communities living in or around a site where a nuclear plant is proposed have a right of veto.

Implementing these principles, and others covered in the paper, along with best practice, which can often be learnt from overseas, inspires TRUST, CONFIDENT ASSESSMENT and ENGAGEMENT.

Above all else, we therefore need to build a new complimentary politics of participation to strengthen our creaking, but still necessary, representative democracy mechanisms.

#### **D) Conclusion.**

In summary, I would close on making another two points:

The strategic assessment and management of complex risk means understanding the world of inter-locking, complex systems. The linear, mechanistic 19century model is out of date - yet this is the foundation of perspective and analysis that official decision-making and mechanisms for communicating and engagement is still too often built upon in Britain.

Assessment and management is about making good judgements about how to proceed - it is not about doing nothing out of fear or excessive caution. And individuals and communities are never too small to be meaningfully involved - remember another principle: the principle of the *Flapping Butterfly Wing*.

**Appendix:** Principles of risk communication