When, where and why does evidence matter to policy-makers?


Thank you very much to ODI for inviting me. I am delighted to be here. I have made one small mistake though which is that I was told I had twenty minutes and I made a few more than twenty overheads. And I will therefore adopt the all-too-familiar tactic of speaking quickly and racing through it.

I appreciate the point made by David that it is worth distinguishing success and failure in evidence-based policy. I particularly want to talk about BSE which, I think I ought to explain, I count as the single biggest failure of UK public policy since the Suez debacle of 1956 and I think there are lessons to be learnt from it. But I want to treat it as part of a broader category of issues which is whether a particular kind of evidence is supposed to have a bearing on policy, namely scientific evidence derived from experts and their role in giving advice to policy-makers.

You may recall that for many years during the BSE saga, which for approximation purposes we could say started in 1986 and culminated at the watershed on the 20th March 1996, when Dorrell and Hogg went the House and said, ‘I am terribly sorry, it looks as though people have got a disease from BSE’. Previously they had said repeatedly that British beef was perfectly safe, there was no risk and that the policy was based on sound science. The rhetoric that policy is based on sound science is one with which we are very familiar in a wide range of issues related to the regulation of risk.

How much sense can we make of this? And under what conditions can evidence play a constructive role?

It is obviously reasonable that policies could be more evidence-based than they have been but what will evidence do for us and what will it not do?

Weber’s ‘decisionist’ model: ‘politics first, then technocracy’, was one of the earliest ways of conceptualising the role that evidence can and should play in public policy, developed by Max Weber in the late 19th and early 20th centuries. He saw industrial society as rapidly bureaucratising and people were increasingly arguing that society would be run by bureaucrats and technocrats. He said that that could not work and that the way it should work is this: policy-makers should set the goals, identify what is to be achieved, and then hand it over to bureaucrats and technocrats who have expertise and facts not possessed by the policy-makers who are generalists, and they develop and implement the policy.

But that does not quite fit with the expression which David used: ‘build on evidence’. It is the other way round here, it is not that policy is built on the evidence – that is a twentieth century reinterpretation of the argument – here it is policy comes first and evidence comes after, or the macro-political goal comes first and it is implemented in detail in the light of expert knowledge. But this model has real problems. It is superficially very plausible and attractive, but it breaks down in several ways. Firstly, it is not too bad if you are in a Platonic universe in which nothing changes, but in a modern industrial, technological universe where you get new scientific evidence and new technologies, new risks and new challenges, what the ends are that you are aiming at depends on being informed by what the experts know and what the emerging facts are. Therefore you cannot simply separate policy guidance from evidence gathering and technocratic expertise. What the goals are themselves depends on what the evidence is.

When the policy-makers themselves were trying to decide about BSE, they needed to have a certain kind of evidence that should have been available to them. They needed to know what was hazardous. Were there risks in beef, in milk, in gelatine, in hides, in bull-semen. They needed to know what was contaminated and what was
not, and how far it was possible to separate them. And then you need not just technical information, you need social information, about what actually happens in slaughter-houses and whether proposed rules can be implemented effectively. But actually no amount of evidence that the experts did and could give to Ministers was sufficient to set the goals.

The question was, what was the goal of policy? The goal could either have been eradicating the risks, or reducing them sufficiently to reassure the customers in order to keep the market stable and to keep people buying beef. In practice, the goal adopted in the UK over BSE was the latter, but it was misrepresented as if it were the former. So evidence was deployed to defend a policy objective which itself was misrepresented.

Similar problems arise in relation to all the other risk issues that government is having to deal with now: GM crops, mobile phones, etc. When it comes to deciding what the goals of policy are, it is not something you can either just give to policy-makers or give to the experts, because the kinds of judgements that need to be made are intrinsically hybrid and involve integrating technical and political judgements. Therefore the role of evidence gets terribly complicated.

The problem of Weber’s model where politics sets the goals and the technocrats get the evidence, work out the facts and implement things in detail is that it always runs the risk that evidence comes to be recruited in order to back up policy that had already been chosen. That is precisely what happened over BSE.

Especially in BSE, it was horrendous. The evidence was very incomplete. We are still not actually sure what the BSE pathogen is; the claim that it is a ‘prion’ is just the most plausible hypothesis. We still do not know if there are tissues in cattle that are pathogen free or if there is a threshold of exposure below which it is perfectly safe, or constitutes a risk.

The evidence remains hugely fragmented, nonetheless, between 1986 and 1996, we were told repeatedly that policy was based on - and only on - the best available scientific evidence. The number of times in which Ministers stood up in the House and said, 'I am doing what and only what my experts advise'. The model there was a different one, not Weber’s. It was a highly technocratic one in which Ministers took no responsibility for anything.

Somehow we have the facts, we have the science. It is like Dickens’ Thomas Gradgrind in Hard Times: ‘give me facts and nothing but the facts, that is all we need’. This is like a Gradgrind view not of educational philosophy but of policy-making. And this is the one that was implicit in the legitimation of policy given by the Ministry of Agriculture, Fisheries and Food (MAFF) from 1986-1996. ‘We have the facts and we know what to do. No one else does and no one else can criticise it’. It is wonderfully useful this technocratic narrative. It is a way of de-politicising politics. You kick an issue into the long grass, hand it over to the experts and it is not open to criticism and scrutiny.

This practice did not end after the General Election of 1997. To my certain knowledge, the head of a public sector regulatory agency was summoned by the Secretary of State to their first meeting and the Minister said, ‘I want you to know Professor, I will never hesitate to use you as my shield’. In effect he was saying: ‘Do not expect me to take responsibility for anything. You are an expert, we are putting you to the front and you take responsibility for decisions’. So it protects Ministers. They can take credit when things go well and their hands are clean when things go badly. But it also flatters the experts because it gives great social and intellectual prestige.

The trouble was that in the Ministry of Agriculture, Fisheries and Food, they represented it in a technocratic way but they knew that that was not true – at least the officials did. What happened is that because the institution became addicted to its own narrative: that knowledge was certain, the risk was negligible and the policy was robust, they could not cope with new evidence which undermined the reassuring narrative, so they got locked into a situation and became deaf and were unable to learn until things became catastrophically bad.

In practice, the evidence did not support the reassuring narrative. But it did not prove it wrong either, it was open ended. The uncertainties were massive. There was a phrase from the Southwood Report in 1989 – a slightly infelicitous phrase – ‘a dead-end host’, meaning the disease will not pass beyond cattle into other species, and therefore everything is perfectly safe.

Then in the 1990s things started to get sticky. Poor ‘Mad Max the Cat’ in Bristol was diagnosed with feline Spongiform Encephalopathy. You will appreciate that when the ban on contaminated materials in the human food chain was introduced, they went into pet food, so pets were eating a lot of this contaminated material. Max was important for the following reason: part of the Government’s narrative was that BSE ‘is just Scrapie’. Scrapie comes from sheep, it has been in the UK flock for three hundred and fifty years, the UK have been eating mutton from Scrapie-afflicted sheep, it has not done anyone any harm, so beef is perfectly safe. But they had tried for years to transmit Scrapie to cats with no success. But Max went down with feline Spongiform Encephalopathy
having eaten contaminated pet food and proved that BSE could transmit in ways that Scrapie could not. So the idea that BSE is just Scrapie started to crumble. The evidence undermined it and it undermines the claim that the disease was confined to Ruminants. The response of the Ministry was just to discount it. The cat still could be a dead-end host – just because it is transmitted to one species does not mean it can be transmitted to another, particularly not to humans.

But that was not the only evidence to be discounted. The Chartered Institute of Environmental Health, from their offices just the other side of Waterloo station, sent a letter in 1991 telling the Ministry of Agriculture, Fisheries and Food that the regulations were not being implemented. That could be discounted too since they had told people that the material was perfectly safe, it did not matter if people consumed it anyway. It only had to look as though there were regulations in order to reassure the consumers, but non-compliance posed no risk so it did not matter.

There was this very sharp disjunction between what was said in private and what was said in public. For example, in 1988 civil servants told Ministers that they could not answer the question of whether BSE was transmittable to humans. But the next year the Minister says publicly that he is totally and completely sure that there is no risk. In private the scientific civil servants say that it would not be justified to state categorically that there is no risk. In public, Ministers said that British beef is perfectly safe. The risk that there may be some contamination in food is met with the argument that it is not possible for BSE to enter the food chain.

As late as December 1995, Health Secretary Dorrell said to Jonathan Dimbleby on a Sunday lunchtime news programme that it was inconceivable that anyone could ever get CJD from BSE and then, come the watershed on the 20th March, 1996 evidence that a new disease had emerged in humans, most probably from eating BSE contaminated food, destroyed the policy instantly and the credibility of the BSE policy and the policy-making institutions collapsed. Many people said it undermined general confidence in science-based policy and experts in regulation and that it provoked a crisis.

But it is alright, we have a new way of making policy and a new orthodoxy and it is the reverse of Weber's model. It is closer to what David had in mind when he talked about building on evidence, so that instead of politics coming first and science coming second, it is the other way round. Now experts deliberate, they have the evidence, they can make the judgement. This is sometimes called a risk assessment. Once scientists have spoken, they then pass the information to policy-makers; it is almost as if the scientists are expected to specify the objective which policy-makers should reach. Instead of politicians setting goals, the experts set the goals, so that for example, levels of contamination should not exceed a certain figure, or certain kinds of tissue should be kept out of the food supply, and then policy-makers take into account what the meat industry will do, what the farmers will do, what the abattoirs will do; they make judgements on what it will cost the Treasury; what kinds of regulations and the most cost-effective ways of achieving the goals that the scientists have set. This is now the new orthodoxy. This is embodied in a great deal of the restructuring of public policy in the risk issue: the way that government Chief Scientist talks about it, the Office of Science of Technology, it is all predicated on this kind of model, except they most typically talk about risk assessment, risk management and risk communication.

But one of the problems of this way of looking at it is that it presupposes that scientific deliberation is something that does not take place within a socio-political context but within a kind of academic abstraction. Secure in their ivory towers, uninfluenced by external political and socio-economic interests, the facts will enable them to decide what the policy objectives should be.

This is an improvement because it is much better than technocracy. Technocracy somehow says that evidence alone will decide policy. At least there is an acknowledgement that you need both evidential scientific considerations and political considerations and it puts scientists into a predicament in which, potentially by comparison with the initial Weberian model, they might be less vulnerable to political pressures under which there is a temptation to recruit evidence to back up the policy you are going to follow anyway – which is what I am implying happened over BSE to a very considerable extent, and in many other fields too.

If we try to do it this way, the notion is that you assign autonomy to experts. You create separate agencies; you create expert committees; you give them some functional autonomy and make them less the creatures of politics. But it simply is unrealistic to think that scientific evidence is gathered and interpreted in a policy vacuum. So increasingly scholars in my academic sub-sector which is called science policy, conceptualise policy as not a two stage process but a three stage process, with interactions amongst the stages where all of it is understood as operating within a specific policy context. No more pretence that what are the facts can be determined abstractly, in a purely disinterested way. The relationship between science and policy is neither politicians telling the scientists what their goals should be, or the scientists telling the politicians what the goals should be, but a much richer exchange whereby policy-makers articulate the range of options available and under consideration and the experts can then gather the evidence, review it and deliberate and make informed judgements about what is known and not known about the consequences of following, or failing to follow, a range of different options. So instead of scientists giving policy-makers monolithic prescriptive advice on a course of action to follow, or policy
makers telling scientists this is where we want to be, it is a richer interaction in which the experts do not solve the
policy-makers' problems for them entirely, but they give them very useful intelligence. In practice the experts give
plural and conditional advice for a range of policy options and politicians have to make the choice for what the
policy judgements are and stop trying to hide behind their experts.

Evidence matters a great deal. Evidence can support policy, it can undermine policy, but it will never settle a
policy on its own and of course policy objectives without the evidence are pointless, but data without goals are
meaningless. Policy is not going to be based just on evidence and evidence will not solve the policy questions
either, but it can make an important contribution.