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Intractable Policy Failure: the Case of Bovine TB and Badgers

The failure to eliminate bovine TB from the English and Welsh cattle herd represents a long-term intractable policy failure. Cattle-to-cattle transmission of the disease has been under emphasised in the debate compared with transmission from badgers despite a contested evidence base. Archival evidence shows that mythical constructions of the badger have shaped the policy debate. Relevant evidence was incomplete and contested; alternative framings of the policy problem were polarised and difficult to reconcile; and this rendered normal techniques of stakeholder management through cooption and mediation of little assistance.

This article examines an intractable, long-term policy failure: the inability to eradicate bovine tuberculosis from the English and Welsh cattle herd as is required by the European Union (EU). If success is defined, as it has been by the Department of Environment, Food and Rural Affairs (Defra,) in terms of slowing down and preventing the spread of the disease to areas free of it and achieving a sustained reduction of the disease in high incidence areas, 'then it is uncontroversial to claim that successive badger control policies have failed.' (Macdonald, Riordan and Matthews, 2006, 131). Part of the problem arises from a lack of agreement on the relevant evidence and gaps in that evidence, leading to uncertainty about the appropriate course of action to deal with the problem, in particular whether culling of badgers should occur.

This article does not focus primarily on the evidential problem. (For a discussion, see Wilkinson 2007). Rather it suggests that the absence of an expert consensus creates a challenge for evidence-based policy making given that a situation in which the evidence is contradictory is worse than one in which there is no

evidence. The resultant policy vacuum allows greater play to arguments which are not evidence-based but often rely on emotional appeals based on particular values or images. The emotional sensitivity of the policy area is often referred to by civil servants in government papers.

'Intractable policy controversies exist and are fundamental to the policy-making process ... Frame analysis helps us to account for their origin and stubborn survival'. (Schön and Rein, 1994, 56-7). This article considers the ways in which the disputes about bovine TB policy have been framed and how this affects their resolution. In summary, the argument advanced is this: relevant evidence was incomplete and contested; alternative framings of the policy problem were polarised and difficult to reconcile; and this rendered normal techniques of stakeholder management through cooption and mediation of little assistance.

Depoliticisation narratives would suggest that issues of this kind can be more expediently handled by transferring them away from ministers and policy civil servants to agencies can be the first line of defence against criticism, the Chemicals Regulation Directorate and pesticides offering a good example within Defra. However, this has not proved possible in the case of bovine TB. Whilst Defra has effectively ended its involvement in other endemic cattle diseases such as Johne's disease and the bovine diarrhoea virus, both of which have substantial effects on productivity and animal heath, it has had to maintain a substantial team of civil servants to deal with bovine TB. The expertise which government has sought to utilise to find solutions to the policy problem has itself become politicised.

Archival evidence from the National Archives extending up to the early 1990s is used to show that particular constructions of the badger have had a shaping influence on the debate. The relaxation in practice of the 30 year rule meant that it was

possible to view files up to 1992. The files are extensive and appear to be a complete sequence. It is never possible to tell whether and how files have been weeded, but there is material in the files that would be embarrassing from a government perspective.

The discussion provides a contribution to the debate on government and policy failure. Some of the existing literature on government failure does not fit particularly well with cases that involve animals. Conventionally, that involves a calculation of whether a policy outcome is Pareto inefficient in the sense that Pareto efficiency provides society with a utility possibility frontier where an individual cannot be made better off without another being made worse off. Human individuals are able to make assessments about whether they or others are better or worse off, but in relation to animals this founders on the question of whether animals as 'sentient beings' can be counted as individuals or as members of society. 'The recognition that animals are sentient is held to mean that we have direct moral obligations towards them, and not their owners or those seeking to represent their interests.' (Garner, 2008, 111). However, the argument presented here has a more general applicability beyond this special set of cases and the debate about the legal status of animals. The literature is replete with examples of where rent-seeking behaviour by particular interests has produced distorted and suboptimal policy outcomes. However, another important case is where the politicisation of an issue by strongly opposed interests of relatively equal weight leads to policy paralysis. Government resorted to a number of familiar devices to unblock the policy impasse, such as reviews by advisory committees and even constituted a special body which lasted for over thirty years in an attempt to reconcile the opposed interests. Although policy modifications resulted from these efforts, the underlying problem remains unresolved.

Government failure and policy failure

Besley notes that (2007, 45), 'Government failure is a term that is often used but rarely defined.' In this discussion, policy failure is treated as a subset of government failure. Typical government failures such as the suboptimal provision of public goods necessarily lead to policy failure. However, one needs to be cautious about how far an approach based on a model derived from welfare economics, which predominates in the government failure literature, can help us to understand the politics of policy failure. As Besley has pointed out (2007, 25), 'it has tended to say little about the process of policy choice and implementation. To that extent it gives a highly technocratic perspective.' The argument made here is that intractable policy failure in the form of policy paralysis needs to take account of the way in which the debate about the policy problem is constructed and even the pictorial depiction of symbols which is a highly effective way of appealing to deeply held values. The approach taken in this article is influenced by Woods (2004) in her history of foot and mouth disease (FMD) in Britain. Her argument is that FMD was transformed from an inconsequential ailment to a terrible animal plague by a range of social, economic, scientific and, above all, political forces. Understandings of FMD were manufactured and it became 'an ideological affair that was closely bound up with the role and status of science in society, the accountability of government bodies and Britain's international standing.' (Woods, 2004, 101).

Dunleavy (1995, 52) suggested that Britain was 'a state unusually prone to make large-scale, avoidable policy mistakes. The most generally used label for this category is "policy disasters", generally construed to mean significant and substantially costly failures of commission or omission by government.' Moran (2001) seeks to relate the problem of policy catastrophe to the phenomenon of the

regulatory state. He poses the question, 'Why is the age of the regulatory state also the age of policy catastrophe?' and one answer he provides are that 'Catastrophes are due to the incomplete penetration of the regulatory state.' (Moran, 2001, 415). He distinguishes between five types of catastrophe, one of which is 'symbiotic politics' which he illustrates with the case of BSE, drawing attention to the tightly knit policy community that developed in agricultural policy with its inbuilt productionist priorities that led to the husbandry practice that produced BSE.

The case of bovine TB was somewhat different in so far as the reluctance of the National Farmers' Union (NFU) to get involved in the issue was complained about by officials and the NFU's influence was counter balanced by organisations purporting to represent the badger. Moran concludes (2001, 426) that 'Symbiotic politics holds the most imponderables for the regulatory state. The case of the Ministry of Agriculture, Fisheries and Food (MAFF) and BSE shows the extraordinarily destructive consequences of fusing public institutions and private interests.' In the case of bovine TB, policy-makers sought to involve a much wider range of interests than those of farmers. However, the result was not the dogged pursuit of perverse and counter productive policies, as in the case of much of what emerged from the traditional agricultural policy community, but no effective or consistent policy at all.

It could be argued that there are some policy solutions that are intractable in the sense that no solution is available. The term 'failure' might be seen to imply that policy solutions are available which policy makers have failed to identify and implement. Current government policy places reliance on the development of a vaccine for bovine TB. A vaccine administered by injection will be available soon, but that poses the problem of catching badgers to administer it which is difficult. An oral vaccine which could be administered with bait is still some way away. It is

suggested later in the article that there is an interim policy strategy which, although carrying some political costs, would reduce the extent of failure compared with current policy.

The development of policy

[Insert Table 1 near here]

A brief chronology of the development of policy is set out here (Table 1) to inform the subsequent discussion. The original driver for government involvement in the eradication of Bovine TB was a public health concern, although high levels of infection of cattle were also a factor with as many as 30 per cent of cattle in Britain dying from the disease in the early 20th century. In the 1930s some 2,000 deaths a year were attributed to bovine tuberculosis derived from cows'milk. This particular route of infection was overcome by pasteurisation (except where raw milk was consumed), although transmission could offer through an aerosol effect to someone in contact with infected animals. Bovine TB is therefore no longer a major zoonosis, but this has not diminished political interest in the subject.

By 1960 it was widely believed that bovine TB had been brought under control in the British cattle herd. Complete eradication may not be achievable but 'between 1960 when the whole country became an attested area and the end of 1964, the incidence of reactors had fallen from 19 in 10,000 to 6 in 10,000.' (Ministry of Agriculture, Fisheries and Food, 1965, 227). Subsequently, the badger population increased while the end of the Attested Herds Scheme removed a constraint on the movement of cattle from infected herds to those that were uninfected.

Bovine TB was discovered in a badger for the first time in 1971 and badger culling began in 1975. 'In 1975 MAFF was presented with the unenviable task of controlling badger-transmitted TB in cattle in the almost total absence of any relevant

research on the biology of any relevant research on the biology and control of badgers. Badger control tactics have changed in response to public relations needs ... but the strategic principles on which the tactics are based have hardly changed since their inception.' (NA: PRO, MAF 459/119, 1986, 12). It is arguable that initial responses relied too heavily on a perception of the badger as the problem and hence the focus of any solution. The submission to the minister made in May 1974 referred to 'the disquieting circumstances in which badgers were linked with the upsurge of bovine tuberculosis in the South West.' (NA PRO: 459/37, 1985a, 3). MAFF documents referred to 'The most intractable animal disease problem' as 'badger-borne tuberculosis.' (NA PRO: MAF 459/12, 1983). It is only since the mid-2000s that faced 'with scientific evidence which confirms the importance of cattle-to-cattle transmission, the NFU, the British Veterinary Association (BVA) and other farming organisations have been forced to accept the necessity of cattle based control measures.' (Wilkinson, 2007, 13).

In 1979, the incoming Minister of Agriculture, Peter Walker, established a review of policy chaired by Lord Zuckerman which endorsed existing policy. (Zuckerman, 1980). There was always provision for a follow-up review to Zuckerman, generally referred to by civil servants as 'son of Zuckerman', and this appeared as the Dunnet Report in 1986. (Dunnet, 1986). This recommended a scaling down of culling, the so-called 'interim strategy'. This remained in place for ten years, despite criticism from both farmers and conservationists, in part because attention switched to the problem of BSE which constrained the resources available for dealing with bovine TB.

In 1996 the Government commissioned a new independent review of policy chaired by Professor John Krebs. This report recommended a programme of

experimentation to determine whether badgers were responsible for the spread of bovine TB in cattle and whether culling strategies would reduce its incidence. The Independent Scientific Group on Cattle TB was set up by the Government in 1998 to conduct the Randomised Badger Culling Trial (RBCT) in order to establish the effects of badger culling on the incidence in herds of bovine TB. This led to the contradictory reports and the Defra secretary, Hilary Benn, decided not to proceed with a cull. Whilst a cull might work, 'it might also not work' and would be too risky. One factor he took into account was that public opposition would render a cull more difficult. (Stocks, 2008, 6).

Thus, nearly forty years after the first tuberculosis diseased badger carcass was found, there is still no settled policy to tackle the problem. This is partly a question of the lack of a scientific consensus which allowed mythologies to develop, as in the case of the 'old rogue badger' discussed below. It was not surprising that civil servants meeting in the Badger Steering Group discussed options such as "let's do as little operational work as possible which we continue to try to discover more clearly what we should be doing". (NA PRO: MAF 459/12, 1982, 2). In practice, badger control was 'influenced by practical and political expediency, field experience, research, public relations considerations, the perplexities and imponderable nature of TB badger/cattle relationships and much discussion among interested parties, especially the views of veterinarians whose primary concern, rightly, is the health and welfare of cattle.' (NA PRO: MAF 459/19, 1986, 12).

The problem of evidence

This section sets out the costs that arise from attempts to manage bovine TB. It shows that there has been a lack of scientific evidence, or agreement on the

interpretation of the scientific evidence, which makes it difficult for policy-makers to arrive at decisions on how the disease should be tackled.

The persistence of bovine TB at a time when there is increased concern about the security of food supplies is undermining the livestock industry at a time when it is beleaguered by rising fuel and feed costs. Exports can suffer when cattle are sent to countries that are free of the disease. Dutch farmers imposed a ban on live cattle exports from Britain after calves imported in 2008 tested positive for bovine TB and Belgian farmers also refused to take British calves and cattle. Culling animals involves emotional and financial costs to farmers, particularly where pedigree herds built up over many years are involved. The public expenditure costs of dealing with bovine TB are substantial and have been increasing. 40 per cent of the Animal Health Agency's resources are devoted to dealing with TB, currently around £100m a year. Government estimates suggest that the total annual expenditure on TB could increase to over £300m a year by 2012-13. 'This would mean that the total expenditure on cattle TB between [2008] and 2013 would be approximately £1 billion.' (House of Commons, 2008, 12). At a time when public expenditure has to be cut in response to the recession, Treasury pressure for the reduction of expenditure that does not secure desired outcomes is bound to increase.

'Critical gaps in the knowledge about cattle TB and the way it spreads remain.'

(House of Commons, 2008, 4). There is substantial evidence that badgers contribute significantly to the disease in cattle, but 'The evidence is ... mainly of a circumstantial nature, proving that infected badgers *can* cause infection of cattle, that infected badgers *can* shed significant amounts of infectious material, that cattle *may* interact with badgers in real situations.' (House of Commons, 1998, 14). However,

'what is still not known is the precise method of transmission from badger to cattle, i.e. it is still not known whether direct contact is necessary for the transmission of the disease.' (House of Commons, 2008, 10). In addition, 'The role and extent that cattle-to-cattle transmission plays in the maintenance and spread of TB is unknown.' Moreover, 'Current tests for bovine TB in cattle are not completely reliable. Tests for TB in badgers and other wildlife are less reliable.' (Welsh Assembly, 2008, 2).

Could badgers be catching TB from the cattle? This issue is certainly raised in the scientific literature. There is discussion about whether badgers are acting as 'spill over' hosts (i.e., that badgers become infected from cattle but do not disseminate it) or 'reservoir' hosts (i.e., badgers become infected and maintain the infection and can pass it back to cattle at some point in the future). What is still unclear is whether badgers are 'maintenance' hosts, i.e., whether TB can remain in the badger population indefinitely without continual exposure to infection from cattle.

The lack of any consensus among scientific experts is shown by two contrasting reports commissioned by the Government. The final report of the Independent Scientific Group (200, 14) stated, 'we conclude that badger culling cannot meaningfully contribute to the future control of cattle TB in Britain.' The Government then commissioned a review of the ISG's report by the then Government Chief Scientific Adviser, Sir David King, assisted by a group of five experts. The King Group concluded that 'In our view a programme for the removal of badgers could make a significant contribution to the control of cattle TB in those areas of England where there is a high and persistent incidence of TB in cattle, provided removal takes place alongside an effective programme of cattle controls.' (King, 2007, para. 5)

Apart from this contradictory advice, a further complication for policy-makers is that there is evidence of a perturbation effect when badgers are culled. Put at its simplest, this means that the disrupted social groups disperse and relocate.

Moreover, 'perturbation increases incidence of bTB in badgers' and 'can cause the spatial distribution of bTB in badgers to change from one in which it is contained within spatially discrete patterns of high prevalence to one where it is more widely, of thinly spread.' (Macdonald, Riordan and Matthews, 2006, 286). Thus, 'to have any prospect of contributing significantly to controlling bTB in cattle, a badger cull would have to be undertaken over a very large area.' (Macdonald, Riordan and Matthews, 2006, 268). Given the level of emotional attachment to the badger, such a large-scale cull would be highly politically unpopular.

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Constructing the badger: the myth of the old rogue badger

The badger is an omnivorous mammal which is the largest surviving land carnivore in the British Isles, following the extinction of the wolf and the bear. It has lived in the islands for at least a quarter of a million years. Around a quarter of the population is estimated to be concentrated in the south-west of England and only ten per cent in Scotland. It is a largely nocturnal animal with poor eyesight. It is estimated that there are some 300,000 badgers in Britain and it is not an endangered species, although it receives strong legal protection. Cultural constructions of the badger in literature and elsewhere treat it as a cherished species endowed with elements of magic and mystery.

Perhaps it was the very mysteriousness of the badger, and the lack of real (as distinct from self-proclaimed) experts on the badger that led to the development of the myth of 'the old rogue badger' which had a significant and continuing influence on

public policy. The concept of the 'rogue badger' is still present in frames of reference as it was referred to in a discussion between the author and the Defra bovine TB team in May 2009. The myth of the rogue badger permitted the construction of an image of a bad, deviant or anti-social badger, a 'senile and virtually toothless' (NA PRO: HO 285/39, 1965) creature, whose actions could be presented as a basis for intervention against a cherished animal. This was only possible by asserting that there were very few rogue badgers. The categorisation could not be extended to the much larger number of badgers afflicted with TB.

Prior to the discovery of bovine TB in a badger carcass in 1971, the Ministry of Agriculture had generally taken a benevolent view of the badger: 'On the whole, the badger is generally regarded as a friend of the farmer since it has some beneficial effect in its destruction of many harmful insects and other pests.' However, no quarter was to be shown to an old rogue badger that had been demonstrated to have been responsible for damage: 'we recommend that it should be shot by an expert marksman when emerging from its sett at dusk.' (NA PRO: MAF 131/170a, 1965). Such a drastic measure was necessary because it was believed that it could not be easily trapped. 'The so-called "rogue" badger is less afraid of such things [traps] than other members of his species and, of his accusers are to be believed, will push through the small pop-hole entrance to a hen-house.' (NA PRO: HO 285/40a, 1966) This was somewhat at odds with the characterisation quoted earlier of the rogue badger as a senile animal, but it was the orthodoxy rather than its internal consistency that seemed to be important. Anyone deviating from the departmental line was likely to draw a sharp rebuke from Animal Health Division. Commenting on a draft ministerial reply, a civil servant in the division stated, 'because of the activities of

"rogue" badgers, we could not say that badgers are not harmful." (NA PRO: MAF 285/40b, 1966).

One of the difficulties was that these issues were being dealt with by generalist civil servants and even when they sought the advice of specialists such as the Infestation Control Laboratory at Worplesdon, they were advised that 'Very few scientific investigations have been made of the life and habits of the badger and all but one or two of these have been uncritical and superficial. The literature abounds with conflicting theories'. (NA PRO: MAF 131/170b, 1960). Nevertheless, within the Nature Conservancy, which was then the official advisory body on flora and fauna, officials shared among themselves their doubts that the 'rogue badger' really existed: 'Between ourselves, I find the reference to "rogue" badgers puzzling. Do we know that such a creature exists or is it merely that badgers (along with other species) are likely to become opportunists when the occasion arises?' (NA PRO: FT 4/184, 1965). However, the Nature Conservancy Council was more of an external advocate than an internal adviser in the policy process and did not see fit to challenge the established orthodoxy. Indeed, they were characterised as 'unhelpful' in one policy review document. (NA PRO: MAF 459/37, 1985a, 7).

Symbolism and discourse

As Schön and Rhein note (1994, 34), 'In order to reflect on the conflicting frames that underlie policy controversies, we must become aware of our frames, which is to say we must construct them'. Quite apart from the problems created by fictional creations like the rogue badger becoming embedded in the understandings of policy-makers, the politics around badgers invokes a highly charged discourse which takes visual as well as written forms. Such symbolic representations can be an important element in political discourse. 'Every symbol stands for something other than itself, and it also

evokes an attitude, a set of impressions, or a pattern of events ... associated through imagination with the symbol. The symbols discussed here are 'Condensation symbols [which] evoke the emotions associated with the situation.' (Edelman, 1964, 6). They may contribute to 'an injustice frame, a way of viewing a situation or condition that expresses indignation or outrage over a perceived injustice, as well as finding some human agency to blame for that transgression.' (Jasper, 1998, 414).

A picture in *Farmers Weekly* showed the badger, red in tooth and claw, devouring its prey, a strong contrast to the images used by animal welfare groups found in the National Archives.. The Dartmoor Badger Protection League ('formed to prevent the unjustified slaughter of badgers') shows two badgers gambolling happily in a sylvan setting. An organisation called Brock has a more soulful picture, with a rather anthropomorphic badger looking out wistfully from behind the bars of a cage. The National Federation of Badger Groups has two badgers in a supplicant stance below the organisation's name.

These pictorial descriptions were matched by the language used in the debate by stakeholder organisations and interested individuals. The badger is depicted in highly positive terms as an innocent victim, whilst public policy is portrayed in highly negative terms. Terms such as 'cruel', 'slaughter' and 'extermination' are frequently deployed to describe government policy. Civil servants were aware that this was an area of great public controversy which entailed the involvement of Mrs Thatcher as prime minister. They emphasised 'that we in the Ministry of Agriculture dislike having to take action against the badger. It gives us as much revulsion as it gives our critics.' (NA PRO: MAF 459/20, 1984). What this represents is an instance of parties to a policy controversy seeing 'issues, policies and policy situations in

different and conflicting ways that embody different systems of belief and related prescriptions for action'. (Schön and Rhein, 1994, xviii).

Stakeholder groups and the policy context

Relations with stakeholder groups in the area were very difficult in spite of the prevalent British policy style of seeking to consult and work with a range of interests. In some quarters of MAFF, particularly among those with scientific backgrounds, there was deep suspicion of conservationist groups because of their lack of scientific understanding and their perceived lack of openness to argument: 'I would suggest that very few local naturalists and conservationists will have much to contribute on badger social groups.' (NA PRO: MAF 459/14, 1985). There was a concern that badger organisations might be 'wholly comprised of "cranks". (NA PRO: MAF 459/26, 1984). Nevertheless, they were perceived as potentially formidable adversaries who had an 'anticipated reactions' effect on policy over a long period of time An advisory leaflet on keeping badgers and cattle apart had a restricted distribution because 'It might ... attract criticism from the conservation lobby who might accuse us of overstating the role of the badger.' (NA PRO: MAF 459/52, 1991) There was concern that 'Conservation interests could renew their attack at any time'. (NA PRO: MAF, 1983b). There was what a major review document characterised as the 'mounting pressure from pseudo environmental pressure groups (EPEGs). (NA PRO: MAF 459/37, 1985, 1). The Ministry faced 'a steady increase in pressure via MPs through a variety of ad hoc bodies such as "Brock" whose pronouncements have been hostile and downright misleading':

There is now a minority of persons prepared to intervene physically in badger control organisations ... It is difficult to foresee this pressure

diminishing. Given the increased militancy of animal rights' organisations it may increase ... It is possible that any major confrontation would stimulate a whole series of such confrontations for a longer or shorter period. This factor can no longer be dismissed as irrelevant for practical purposes. (NA PRO: MAF 459/37, 1985, 7-8).

Apart from a constant concern that any action to protect badgers might provoke the fields sport societies, the Ministry also considered that they were undermined by a lack of support from their most important interest partner, the National Farmers' Union (NFU):

Over the years [the NFU] have adopted a very low profile and have not attempted to defend the policy. Following the publication of the Dunnet Report they did not even issue a press statement ... It is not going to be easy for MAFF to adopt a high profile if the NFU adopts a very low one. It was only by a squeak that the Minister was not undermined by the NFU on hormones policy because of a similar divergence in PR effort. (NA PRO: MAF 459/37, 1985b, 3)

Following the publication of the Dunnet Report, MAFF pointed out to the NFU that 'for a considerable period MAFF has borne criticism for its badger control policy – action aimed at supporting the livelihood of NFU members who are livestock producers.' Disappointment and ministerial criticism was expressed to the NFU but the hope that the NFU 'will, however belatedly, now take up its cudgels on behalf of a policy which benefits its members' produced no response. (NA PRO: MAF 459/39, 1986). This continued to be a problem in the early 1990s, a memorandum noting that NFU representation on the Badger Panel 'has been weak'. (NA PRO: MAF 459/66, 1992a.)

A further challenge was media criticism of government policy. 'Badger control has never had a good press since it was first mooted'. The Ministry was particularly aggrieved by what it considered to be 'provocative television broadcasts by Mr Phil Drabble.' (NA PRO: MAF 459/37, 1985b, 1). Lord Arran expressed the hope on television that 'My only wish is that if the Minister proves to be wrong then he'll be eaten by badgers as Bishop Hatto was eaten by rats'. (BBC, 1975). The print press was also highly critical. A not untypical report was one that appeared in the *Sunday* Times with the strapline 'Farmer's wife Phyllis Crook weeps as ministry men pump cyanide gas into a badger sett in Lyneham, Wilts' accompanied by an appealing picture of a badger. The article opened, 'Badgers are being wiped out in south-west England because of an official report [the Zuckerman report] which is now being widely attacked as scientifically spurious, biased and factually misleading.' (Grice and Gillie, 1980). In 1982 a strategy of actively defending the policy was initiated by the then minister, Peter Walker, but 'Although considerable resources went into the exercise there was no discernable effect on the volume of hostile criticism.' (NA PRO: MAF 459/37, 1985b, 2).

Defusing the issue: the advisory committees

Given the intractability of the issue, ministers resorted to a number of devices to seek advice and to try and reconcile opposing interests. External advisory committees were one such device, in this case committees headed by Lord Zuckerman and Professor Dunnet The prevailing atmosphere made appointments to head the various advisory committees and panels set up in the policy area particularly challenging, requiring special qualities of those appointed. 'It may not be easy to find someone with the appropriate qualities who is prepared to take on a task which is

likely to make him a new target for extreme critics of our badger control policy.' (NA PRO: MAF 459/16, 1987a, 2). In relation to what became the Dunnet review, the prime minister, Mrs Thatcher, was advised, 'the individual concerned could well become the target of persona abuse as Lord Zuckerman was ... All members should be able to tolerate some criticism given that the subject is one raising considerable emotion in some quarters.' (NA PRO: MAF 459/22, 1984, 2). Dunnet was, however, more successful than the combative Lord Zuckerman in developing a policy stance that defused the issue for a decade

The Zuckerman committee, which reported in 1980, was set up by Peter Walker shortly after he became minister in response to criticism of departmental policy on badgers and TB. Lord Zuckerman was a distinguished individual who proved to be broadly supportive of existing policy, arguing that 'Half-measures or measures taken without an understanding that the situation we are facing is a TB epidemic of serious proportions in badgers, are not going to succeed'. (Zuckerman, 1980, 42). He did, however, stir up controversy with his robust criticisms of badger organisations

The 1986 Dunnet Report re-affirmed the badger/cattle link in bovine TB, but recommended restricting badger control to the farm of breakdown. This had the advantage of killing few badgers and also reduced the demands on public expenditure. This was becoming increasingly important with 'pressure for financial savings on ADAS expenditure and a need for numerical savings on posts'. (NA PRO: 459/37, 1985b, 1). The Dunnet Report 'was, in the absence of adequate scientific information, obliged to be pragmatic and to compromise in its conclusions and recommendations.' (NA PRO: MAF 459/40, 1986). It sought to pursue a middle course between the conflicting interests and in that sense it was a greater political success than Zuckerman, although whether it represented effective policy is another

matter. The archival evidence shows that in some respects civil servants were uncomfortable with what eventually emerged. Despite their reservations, it served its purpose in ensuring a basis for policy for the next ten years that evoked less controversy than the preceding policy.

Defusing the issue: the Badger Panel

Creating spaces where the views of opposing stakeholders can be exposed to expert evidence, mediated and hopefully reconciled is one technique available to government for dealing with an intractable policy problem. The Badger Panel was set up in 1976 'for the express purpose of providing a forum for the views and advice of leading experts and interested organisations on the problems posed by bovine tuberculosis in badgers. The membership ... includes a wide range of scientific, veterinary and conservation interests and individuals'. (NA PRO: MAF 458/26, 1984, 1). As an advisory body, it is evident that their effect on policy was limited, in part because 'Given the wide spectrum of opinion represented on the Badger Panel it has frequently not been easy to achieve a unified view.' (NA PRO, MAF 459/37, 1986b). When an independent chairman was appointed, it was noted that the 'main need in guiding Panel's operations will be to try and achieve compromise so can offer unified advice to Government.' (NA PRO: MAF 459/16, 1987c). In reply to an enquiry about whether the Ministry ever took a more liberal or cautious line than an advisory committee recommended, it was stated:

The [Badgers Panel] periodically churns out recommendations to the Minister. Adoption is by no means certain but they also get a polite hearing. Given the political flavour of conservationist views it is hard to know in which direction liberal lies. Farmers think we are too liberal and conservationists too draconian. Can't win really. A classic piece of Ministry fence sitting at the

moment. (NA PRO: MAF 459/66, 1991).

MAFF was well aware that the panel performed a very valuable function in terms of explaining its own policies and legitimising policy:

At present the Panel's support for the Ministry's policy in this emotionally sensitive area is most valuable as a means of putting our views to organisations that might be critical or hostile. Secondly, its existence enables the Minister to say that his policy is continuously monitored by all of the organisations who have a legitimate interest in the issues arising and thereby constitutes a powerful political weapon. (NA PRO: MAF 458/26, 1984, 2)

The Panel 'plays a major role in allowing us to demonstrate that all shades of opinion on badgers have been taken into account before we kill them.' (NA PRO, MAF 459/66, 1992b) The seriousness with which the political cover it provided was taken is illustrated by the presence of a number of senior MAFF officials at meetings and the effort that went into briefing the chairman before meetings. There was also a wish to secure as encompassing a membership as possible. Officials did consider at one point whether the panel was too large but 'all the organisations represented at present have a legitimate interest and there would likely to be a strong reaction from any excluded organisation which would outweigh the possible benefits of a smaller Panel.' (NA PRO: MAF 459/17, 1986a) The most difficult decision MAFF faced about membership was when the National Federation of Badger Groups was formed in 1986 and asked to be represented on the Badger Panel, leading to a meeting with officials:

Their representatives proved to be well informed and more moderate in their views than might have been expected and the NFBG could be expected to play a reasonably constructive role on the Panel. There would, of course, also be a

political advantage in such an appointment. On the negative side, the NFBG is a very new organisation whose durability must be in some doubt. However, the NFBG are the only body who can claim to represent the "badger lobby" and, on balance, officials believe they should be invited to put forward a nominee for appointment (NA PRO, MAF 459/17, 1986b, 4)

The first representative of the NFBG on the Panel proved to be somewhat outspoken, but his successor caused even more qualms. The chairman of the panel 'recognised that Mr Hancock [sic] was likely to be a difficult member, given his previous views.' (NA PRO: MAF, 459/65, 1990). Mr Hancox resigned in 1992 complaining that discussion in the Panel was 'an insult to the intelligence and political integrity of those taking part', that 'he was not willing to be a political pawn' and 'have had little support from Badger Groups'. (NA PRO: MAF 459/66, 1992c). MAFF also had difficulties with the British Veterinary Association (BVA), which had been a stalwart supporter of its policies, but where an internal dispute broke out about whether they should be represented by a scientist or a practising vet. The BVA telephoned to see whether MAFF might give a steer in favour of a large animal practice vet, but were told 'I thought this unlikely as I did not think MAFF would want to influence organisations to such an extent.' (NA PRO: MAF 459/65, 1989, 2).

The Badger Panel ceased to meet after the establishment of the Krebs review in 1996 and was disbanded in 2003. The ostensible reason given was that it was no longer necessary as an expert group would supervise culling. (Defra, 2003). However, it also reflected an attempt by Defra to construct a more evidence based approach to policy on bovine TB. The strategy of creating encompassing groups which attempted to reconcile differences between highly divergent positions was seen

not to have worked and reliance was placed on much smaller, more exclusive groups. In 2006 Defra created a small TB Advisory Group which was set up to 'consist of those with experience of working with the disease rather than a representative selection of interested organisations. The group is not intended to provide another forum for the usual debates over badger culling to be rehearsed by farming and wildlife organisations'. (Wilkinson, 2007, 11). The inbuilt preference for veterinary expertise in this new arrangement was not necessarily a way of generating a workable solution as large animal vets tended to be sympathetic to their farmer clients and were inclined to see the problem in terms of the badger rather than cattle-to-cattle 'The use of veterinary advice is likely to cause further controversy ... transmission. as their approach to disease control is frequently at odds with other forms of scientific expertise.' (Wilkinson, 2007, 11). In November 2008 Defra created a small Bovine TB eradication group which, apart from Defra officials, was composed just of farmers and veterinarians and was charged with developing a strategy to reduce the incidence of bovine TB. It has been meeting once a fortnight.

Conclusions

Given that there is no 'obvious workable policy option' (Wilkinson, 2007, 15) it could be argued that having no settled or effective policy is the least bad outcome. However, this has to be balanced against a continuing deterioration in the incidence of the disease. There were 2,639 new herd TB incidents in the first six months of 2008 in Great Britain, as against 2,275 for the whole of 2007 and 18,793 reactors slaughtered as against 12,795 in 2007. Current policy is not even containing the disease. The Conservative Party has announced that if it achieves office it will embark on a strategy of culling badgers.

There is a more radical policy option which would not be popular with the farming industry. Even in countries like Australia which do not have a wildlife reservoir, eradication of the disease was very expensive. It has to be accepted that the cost of eradicating TB would be far greater than either the government or the industry, or both of them together, would be willing to pay. Indeed, it is doubtful if any animal diseases would have been eradicated historically if one had to mount a business case as current Defra policy-making procedures require. One therefore could think in terms of a feasible containment strategy. This would involve accepting that some areas of the country are lost to TB. In practice, farmers in those areas already have to live with the disease, as interviews with farmers in Gloucestershire in February 2009 confirmed. Resources would then be concentrated round the edge of infected areas to stop the spread of the disease to clean areas.

What are the main general lessons to be derived from this case study about policy failure? First, there are limits to the extent to which the transformation of the state in Britain affected this particular political arena. The replacement of MAFF by Defra produced a new approach to the problem which attempted to rely on evidence rather than political bargaining processes, but 'the results have been highly contentious and many alternative truth claims have been made.' (Wilkinson, 2007, 15). More generally, it shows the constraints operating of efforts at depoliticisation in policy areas where evidence-based discourses do not predominate and hence points to some of the limits of the depoliticisation narrative which has been so predominant in recent explanations of British politics. Indeed, rather than experts depoliticising the issue, what can be seen is a 'politicisation of expertise.' (Wilkinson, 2007, 15). Moreover, the issue has now become one of controversy between the two main political parties.

Yet this politicisation fails to take account of the way in which different forms of expertise may 'frame' the problem in different ways, in this case the differences between the perspectives of vets and epidemiologists. In policy areas in which mythology, as in the case of old rogue badgers, and values and images permeate the policy process, mechanisms such as external enquiries do little to resolve the underlying conflicts. MAFF resorted to traditional devices to manage the problem such as advisory committees and stakeholder forums, although their efforts were undermined by the unwillingness of one of the key stakeholders, the NFU, to support their policy in private but not in public. The Badger Panel provided useful political cover for MAFF, but produced little common ground between the opposed interests. The lesson that Defra learned was that such broadly based forums were not going to reconcile strongly opposed interests, nor were they going to produce workable solutions. Hence, Defra has pursued a stakeholder strategy which engages with a more limited range of key interests. This could be interpreted as a process of policy learning, although there is recognition within Defra of the tension between working more effectively with a limited group of core stakeholders and being open to charges of exclusion.

One implication is that some account has been taken of the role of emotion in the policy process, the specification of blame and the generation of villains and the extent to which notions of injustice come into play. (Japser, 1998). Models derived from welfare economics with its technocratic perspective are unlikely to capture such factors. What one needs is an understanding of how the policy problem is constructed, often from different assumptions that lead to divergent conclusions.

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