

Joint (Industry/Government) Working Group on Sharing Responsibilities and Costs of Animal Disease

APPROACHES TO DISEASE CATEGORISATION

Introduction

1. At its previous meeting the Working Group considered a list of exotic diseases for possible inclusion in a cost sharing agreement and principles used in Australia and New Zealand for categorising animal diseases (JIGWG 24). In addition, the paper submitted by Richard Bennett also set out a categorisation approach for exotic disease based on the likely distribution of costs and benefits of a disease outbreak and its control (JIGWG 26).

2. Starting from first principles, the economic rationale for government intervention in the UK is based on the idea of 'market failure': the idea that left to themselves, markets may not produce the best outcomes for society. There may be a role for government to intervene to influence markets so that they produce results that are more socially desirable. There are various types of market failure:

- a. Externalities – where a market transaction has an impact on third parties who are not party to a transaction (e.g. other industries);
- b. Public goods – goods which owing to their nature are not typically provided by the private sector (e.g. access to clean air, public health)
- c. Information failures – problems with the amount of information or imbalances in its availability to different parties to a transaction (e.g. information about the health status of cattle or plants);
- d. Failure of competition – imbalances in market power across the supply chain.

3. Thus, in respect of exotic disease outbreaks there is often a clear economic rationale for government intervention as the types of market failure described above will exist. However, depending on the nature/profile of the

particular exotic disease, the extent to which ‘market failure’ arguments apply will vary. Therefore, it seems appropriate that the extent of government intervention should also vary depending on the nature/profile of the disease. Thus, for example, where there are limited externalities and low impact on public goods from an exotic disease, government intervention ought to be limited and livestock keepers are best placed to manage the risks and costs themselves. Conversely, when there are high externalities and high adverse impacts on public goods, this would call for a greater degree of government intervention.

4. In the Australian and New Zealand contexts, these kinds of arguments have been translated into basic ‘rules of thumb’ for categorising diseases into a relatively small number of classes which apportion the relative contribution of government and industry to a cost sharing agreement (see JIGWG 24).

5. For the English context, the categories based on the extent of externalities associated with a disease outbreak along the following lines are suggested:

Category	Criteria/Rules of Thumb	Relative contribution from Government to a cost sharing scheme
1	High externalities and, in particular, high adverse impact on human health or the environment. Low economic impact on the livestock industry.	High
2	High externalities and, in particular, high adverse impact on the wider economy. Significant impact on public health and the environment.	High
3	Moderate externalities but high impact on the livestock sector(s). No impact on public health	Moderate

	or the environment.	
4	Low externalities but high impact on the livestock sector(s). No impact on public health or the environment.	Low
5	Low externalities and low impact on the livestock sector(s). No impact on public health or the environment	Low

6. Once the categories have been established, there are at least two approaches to populating the categories with the exotic diseases. The first approach assumes that a specific disease is always associated with a specific category and this will depend on its characteristics e.g. whether it is zoonotic or highly contagious etc. This approach requires prior discussion between the parties to the agreement and will need to be based on agreed macroeconomic and public health data¹.

7. An alternative approach would be to say that specific diseases need not always be associated with a fixed category but the categorisation takes place *post-hoc* and depends on the severity of a particular outbreak. For example, a limited FMD outbreak could be a category 4 disease but a more widespread FMD outbreak could be a category 3 disease and a very large outbreak could be a category 2 disease.

8. The Working Group is invited to comment on the suggested categorisation of disease into 5 classes as set out above (paragraph 5) and on the two approaches to populating the categories (paragraphs 6 and 7).

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¹ This approach is used in Australia. Where a party wishes to review the categorisation of a disease, they must provide Animal Health Australia with a specific request justifying the change from one category to another. This must be based on a material change in macro-economic impact and/or new scientific/epidemiological knowledge of the disease.