Guidelines on the Use of Economic Analysis to Inform SPS-Related Decision-Making[1]

Executive Summary

1. Many developing countries face seemingly formidable demands for the enhancement of sanitary and phytosanitary (SPS) capacity, directed at domestic policy objectives and in particular boosting agri-food export performance. Certainly, the available resources from national budgets and donors are insufficient to meet all of these needs and inevitably priorities have to be made between competing capacity building options. In this context, economic analysis appears to offer a structured framework that can help decision-makers establish priorities in a manner that is objective and accountable, and that helps to ensure that resources are used in an efficient manner.

2. This report reviews experiences with the use of economic analysis to guide priority-setting for SPS capacity building in developing countries, highlights the challenges faced in using such methods and provides general guidance to decision-makers on which economic analysis approaches are best applied in particular decision scenarios. In preparing the report, the existing literature has been reviewed and practitioners of economic analysis consulted on their own experiences. A framework is proposed for establishing priorities between SPS capacity building options across the broad areas of food safety, animal health and plant health that can take account of varied and multiple decision criteria.

3. Cost-benefit analysis (CBA) and, to a lesser extent, cost-effectiveness analysis (CEA) have been applied quite widely to the analysis of SPS capacity building in both high-income and developing countries. Most of these applications have focused on specific aspects of food safety, animal health or plant health capacity, for example controls on foot and mouth disease (FMD) or fruit fly, rather than the broad comparison of SPS capacity building needs. They variously examine the impacts of past or on-going investments *ex post*, or the anticipated impacts of prospective investments *ex ante*, although rarely in a true decision-making context. There is little evidence that either of these techniques is used on a routine basis in developing countries or by donors, except at a rather rudimentary level. Both of these techniques, however, are evidently useful ways in which to compare and contrast the costs and benefits of specific capacity building options, on the basis of a relatively small set of impacts that can be measured in broadly comparable units.

4. Previous applications of CBA and CEA illustrate the challenges with undertaking economic analysis in a developing country context. Often there is a limited supply of data or concerns about the quality of available data. This often requires uncomfortable compromises in the scope or depth of the analysis, such as the adoption of methods that are relatively simplistic or extrapolating data and making assumptions where impacts are difficult to discern and/or quantify. Indeed, practitioners see data as one of the primary constraints to the successful use of economic analysis to help guide priority-setting for SPS capacity building in a developing country context. At the same time, these challenges mean that the results of CBA and CEA must be treated with some caution, with varying accusations that CBA in particular routinely under- or over-estimates costs and/or benefits.

[1] This Executive Summary is taken from the draft document prepared by Spencer Henson, Professor University of Guelph and Research Fellow, Institute of Development Studies, and Oliver Masakure, Assistant Professor, Wilfred Laurier University for the Standards and Trade Development Facility (STDF). The final Guidelines will be available on the STDF website (www.standardsfacility.org) in December 2009.

5. Multi-criteria decision analysis (MCDA) is presented as a useful alternative to CBA and CEA. In particular, MCDA enables capacity building options to be prioritised based on a wide range of decision criteria (for example value of exports, impacts on small-scale producers, improvements in domestic public health and/or agricultural productivity and consequences for women and vulnerable areas) that are not necessarily measured (or even measurable) using the same metrics. While MCDA approaches have been widely applied to decision-making in other areas, such as natural resource management, to date they have been little used in the area of SPS capacity building.

6. A structured and multi-stage MCDA framework is proposed here to support the establishment of priorities across broad areas of SPS capacity. It involves the following steps:

(i) Definition of the set of capacity building options to be considered.

(ii) Collection and assembly of information on pertinent decision criteria in the form of information cards.

(iii) Translation of measurements on decision criteria, individually or in broad categories, into cobweb diagrams[2] that illustrate the key areas in which each of the capacity building options perform relatively well/badly.

(iv) Derivation of a numerical prioritisation of the options being considered.

7. Ideally, the separate elements and formats used to present data on the set of capacity building options should be considered side-by-side to make the nature of the decision process, and the associated trade-offs between decision criteria, as clear as possible.

8. The use of economic analysis, while offering potentially considerable improvements to decision processes in terms of objectivity, transparency and accountability, changes the nature of decision-making. It tends to put more focus on 'hard numbers' and more time and resources are generally needed to make decisions. It is vital that personnel at all levels of the decision process 'buy in' to the use of economic analysis and commit to provide the necessary support and resources. At the same time, since the initial learning curve is inevitably rather 'steep', there is a need for technical assistance to develop the necessary expertise and experience.

9. The STDF could play a key role in developing the necessary training materials for MCDA in SPS-related decision-making and promoting its use. As a first step, the STDF could test the MCDA framework proposed here in a small number of trial countries to examine how it works in practice and refine it further. This would also be useful to develop a practical "user guide" providing more detailed guidance and concrete examples.

[2] A cobweb or radar diagram shows the value of three or more indicators on axes that start from the same central point. This is a useful way of showing the relative position of each capacity building option across the spectrum of decision criteria.