

AID-FOR-TRADE: CASE STORY

STANDARDS AND TRADE DEVELOPMENT FACILITY (STDF)

Using Economic Analysis to Inform Sanitary and Phytosanitary Decision-Making

Region: Global

Type: Approach / process

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Executive Summary

1. In 2009 the Standards and Trade Development Facility (STDF) initiated work on the use of economic analysis methodologies in the sanitary and phytosanitary (SPS) area. This included the organization of a workshop which presented and discussed experiences in the use of different economic analysis methodologies (Geneva, 30 October 2009)¹, and the publication of *Guidelines on the Use of Economic Analysis to Inform SPS-related Decision-Making*² and an STDF Briefing Note.³ Efforts are subsequently underway to develop and pilot test a decision-support tool, and delivery complementary training, to apply one economic analysis methodology – specifically multi-criteria decision analysis (MCDA) – in the SPS area.⁴

2. Economic analysis methodologies provide a tool to guide decision-making on the allocation of resources by indicating the likely effects of investing in different areas. MCDA is a relatively new approach, which enables decision-makers to prioritize capacity building options based on a wide range of decision criteria (e.g. value of exports, impacts on small-scale producers, improvements in domestic public health and/or agricultural productivity, etc.) that are not necessarily measured, or even measurable, using the same metrics. It provides a structured way of collecting and assembling data and a process to derive a numerical prioritization of capacity building options. In contrast to cost-benefit analysis or cost-effectiveness analysis, MCDA may be used in situations where data is limited and/or of poor quality.

3. Experiences show that utilization of economic analysis tools enhances the quality of decision-making, promotes better use of available financial resources, improves the decision-making process and generates compelling evidence in support of SPS capacity building. However, knowledge, skills and data to apply these methodologies are often limited. By developing a practical MCDA tool and training package that is tailored to SPS, the STDF work is expected to improve both the SPS decision-making process and the quality of the resulting decisions.

¹ This workshop was attended by approximately 200 experts, including SPS Committee delegates and some 60 experts in food safety, animal and plant health (supported by the WTO and STDF). Presentations provided examples of the use of different methodologies to estimate the costs, benefits and returns on investments in food safety, animal and plant health capacity building (*ex ante* and *ex post*). More information is available on the STDF website: http://www.standardsfacility.org/Economic_analysis.htm

² STDF. 2009. *Guidelines on the Use of Economic Analysis to Inform SPS-related Decision-Making*. Prepared by Spencer Henson and Oliver Masakure for the STDF. Available at: http://www.standardsfacility.org/files/EconomicAnalysis/STDF_Coord_291_Guidelines_22Jan10.pdf

³ STDF. 2009. *Using economic analysis to inform SPS decision-making*. STDF Briefing No. 3. Available at: http://www.standardsfacility.org/files/One_page_brief/STDF_Briefing_No3_EN_web.pdf

⁴ The MCDA tool is being developed based on pilot testing activities in Africa (Mozambique, Zambia and Malawi), Asia and Latin America (countries to be determined). The training package will encompass development of training materials and the delivery of three regional workshops.

Issues Addressed

4. This case story focuses on ongoing work by the STDF to develop tools and training materials to support the use of economic analysis – specifically multi-criteria decision analysis (MCDA) – in decision-making in the sanitary and phytosanitary (SPS) area. It addresses issues related to SPS capacity building and technical cooperation including SPS action planning, the prioritization and sequencing of activities, and decisions on the allocation of resources. Issues related to the approach and process of developing methodologies and decision-support tools for use in developing countries are also considered.

Objectives Pursued

5. The STDF work on economic analysis aims to develop a practical tool to support and enhance decision-making on the allocation of resources for SPS capacity building, and to equip SPS experts in developing countries with the knowledge and skills to apply this tool. The purpose is to improve the SPS decision-making process, as well as the quality and impact of investment and resource allocation decisions.

6. This work will support other ongoing STDF work including on the development of SPS action plans and on indicators to measure the performance of national SPS systems. It will also be of value to improve financial decision-making as part of project development.

Problems Encountered

7. Participants at the STDF workshop on the use of economic analysis methodologies in the SPS area raised a number of common challenges, which persist in the application of economic analysis methodologies in the SPS area. In general, skills and knowledge about different economic analysis methodologies and how to apply them are in short supply. Incomplete data and concerns about data quality are a key problem faced. Moreover, SPS-related data tend to be scattered across a number of institutions, reflecting the number of different organizations involved, which can impede easy access to these data.

8. Another challenge relates to difficulties to quantify unknown and future benefits of investments in SPS capacity building, particularly with regard to effects on human health. Measuring and/or attributing costs and benefits of future investments is similarly difficult. Uncertainty is inherent in economic analysis, particularly in situations where data is limited, and coping with uncertainty is methodically challenging. Finally, developing, testing and refining MCDA decision-support tools and training materials, based on pilot testing and trials in countries, is time and resource intensive.

Factors for Success/Failure

9. Involving selected beneficiaries and users (in this case SPS experts in developing countries) in the development and refinement of decision-support tools is essential to ensure that the final products developed reflect local realities, and are useful for the intended purpose. Engaging selected beneficiaries and users in piloting activities to apply tools in a "real-world" setting provides a useful means to "test" the relevance and feasibility of these tools in different country settings, address unforeseen problems and fine-tune the methodology, thereby enhancing the final product. In addition, in-country pilot testing activities generate case stories, which help to illustrate the process, challenges encountered and results, which are very useful for training purposes.

10. Reflecting the number and diversity of stakeholders involved in SPS management, economic analysis tools and training materials should be developed based on a participatory and transparent process. Government agencies responsible for trade, food safety, animal and plant health, as well as the private sector, universities, research institutes, etc. may have relevant data and experiences to contribute.

Facilitating the participation of all the relevant stakeholders in the application of these methodologies and decision-support tools, contributes to the success of these initiatives. In addition, the direct involvement of national SPS experts in pilot testing activities supports local capacity building.

11. Incomplete data and/or inadequate knowledge and skills are obstacles to the application of economic analysis methodologies, including the MCDA approach, within SPS decision-making in many developing countries. Given the relatively steep learning curve involved, the publication of tools and guidelines should be accompanied by training. Given that economic analysis utilizes the best data available at the time, it is also recommended to carry out tracking studies to measure the actual benefits and their impacts, and adjust decisions as necessary.

Conclusions

12. A number of countries and organizations have already applied economic analysis in the SPS area to: (i) examine the impact of past or ongoing investments in SPS capacity building *ex post*; or (ii) consider the expected impacts of prospective investments *ex ante*. These and other experiences show that making systematic use of economic analysis in SPS decision-making has three main benefits. First, by helping to avoid the risk of inefficient and ineffective decisions, use of economic analysis promotes better use of resources. It can also help to determine the point along the value chain at which investments would generate the greatest returns. Second, using economic analysis contributes to objectivity, consistency, transparency and accountability in decision-making. Third, by indicating the potential returns on investment and/or cost-savings involved in addressing SPS problems, economic analysis can provide compelling evidence in support of SPS capacity building.

13. While it is too early to identify the results and lessons learned from this STDF work, some preliminary conclusions can be drawn, which may be relevant to the Aid for Trade Initiative. Firstly, the application of MCDA is expected to have considerable potential as a policy tool to support SPS policy and decision-making in a systematic way, which is of particular interest given the number of stakeholders involved and the often fragmented state of SPS-related information at the national level.

14. More efforts are needed to improve systems for data collection and management since the application of decision-support tools like MCDA is improved with high-quality and reliable data. Regulatory authorities responsible for food safety, animal and plant health in many developing countries need better capacity to collect and analyse data that can be used in economic analysis and to support their work more generally (e.g. setting risk-based priorities for inspection). Access to better quality data would also enhance the use of results-based management and the identification of indicators.

15. Use of economic analysis is a challenging process that should be built up over time. Even in cases where there are data limitations, relatively simple types of economic analysis can be carried out. It is advisable to expand the use and complexity of economic analysis gradually, as it becomes more accepted in SPS decision-making and more capacity is available.