

## **SUMMARY OF THE STDF WORKSHOP TO REVIEW WORK ON THE USE OF THE MULTI-CRITERIA DECISION ANALYSIS (MCDA) TOOL TO PRIORITIZE SPS CAPACITY BUILDING OPTIONS**

**WTO, GENEVA, 24-25 JUNE 2013**

### **1 INTRODUCTION**

1.1. The STDF organized a workshop in Geneva on 24-25 June 2013 on the use of the Multi-Criteria Decision Analysis Tool to prioritize SPS capacity Building Options. The workshop was attended by a total of 44 participants (see Annex 1), representing STDF partners, donors, observer organizations, STDF developing country experts and other experts from developing countries who have applied the MCDA tool.

1.2. The purpose of the workshop was to review and take stock of experiences and lessons learned where the MCDA framework has been used to prioritize SPS capacity build needs, and to consider options to improve the methodology and process through which it is applied. The specific objectives were to:

- i. take stock of experiences and lessons learned from countries where the MCDA framework has been used to prioritize SPS investments for market access;
- ii. identify, discuss and agree on concrete options to further improve and refine the MCDA framework and its practical application;
- iii. make recommendations to guide future STDF work on MCDA including the development of synergies with other related work of STDF partners.

1.3. To facilitate an informed discussion, the first day of the workshop comprised an introduction to, and discussion of, the individual steps involved in this tool including the features of MCDA and the use of the D-Sight computer software. The second day included presentations from experts from developing countries where the framework has been used, as well as interventions from selected STDF partners (FAO / IPPC and OIE) focused on possible complementarities between this tool and other related work. The workshop programme is attached in Annex 2. PowerPoint presentations delivered during the workshop are available on the STDF website (<http://www.standardsfacility.org/en/TAEcoAnalysis.htm>).

1.4. This report summarizes the key issues discussed during the workshop, as well as the suggestions and recommendations for follow-up.

### **2 KEY ISSUES DISCUSSED**

2.1. The discussions during the workshop revealed somewhat diverging opinions and views on the "MCDA tool"<sup>1</sup> and its use, including the need for more clarity on the scope of its application and hence interpretation of results. The developing country experts who have used the tool highlighted its usefulness to prioritize SPS capacity building needs and consider the likely impacts of investments, and also to raise awareness about the importance of investing in SPS capacity and to contribute to enhanced dialogue (public-public and public-private) on SPS capacity building at the country level. Several recognized the role of trade in driving economic growth in their countries and commended the tool's unique and practical approach to link SPS investments to trade impacts, and to clarify the costs and returns of investments in SPS capacity building. At the same time, they raised some challenges related to use of this tool in their countries (e.g. limited data availability, difficulties to involve some stakeholders, need for training, high turn-over of government staff, need for a more simple and user-friendly user guide, etc.), which should be addressed as part of future work.

2.2. While STDF partners generally recognized the potential of the tool and its ability to promote multi-stakeholder dialogue on cross-cutting SPS issues, they also identified the benefits of

---

<sup>1</sup> This report refers to the "MCDA Tool" as discussed during the workshop. However, one of the recommendations of the workshop was to re-name this tool to clarify its scope.

applying MCDA alongside the SPS capacity evaluation tools available from the standard setting organizations. Partners emphasized the importance of their sector-specific capacity evaluation tools to provide an in-depth identification of capacity building needs in the areas of animal and plant health and food safety, and went further in recommending that the use of these sector-specific evaluation tools should precede the use of the MCDA tool. Partners further underlined the need to identify and prioritize food safety, animal and plant health capacity building needs on the basis of sustained development of capacities to apply international standards, and cautioned against undue emphasis on prioritizing investments related to exports, given the importance of strengthening national food safety, animal and plant health systems more broadly. It was also recognized that the MCDA framework could be adapted for this wider prioritization task. In addition, some partners highlighted that other options (e.g. focus groups) exist to bring stakeholders together. Some partners suggested that it would be useful to analyse and assess if and how MCDA is used in developed countries, including as part of the "One World, One Health" initiative.

2.3. The main issues discussed are summarized in more detail below.

## **2.1 Scope and approach**

2.4. The discussions provided further clarification to some participants regarding the scope of the tool. The STDF Secretariat clarified that the current version of the tool was developed to prioritize SPS investments to address specific problems related to agri-food exports and market access. As such, the initial applications had focused, for practical purposes, on SPS investments considered necessary for exports. Spencer Henson (STDF consultant) explained that the decision to "limit" the scope of the analysis for the initial applications was a deliberate one, which was intended to facilitate the development and piloting of this methodology. Nevertheless, the tool could be adapted and used for other purposes, for instance to address SPS investments related to agri-food imports (which is particularly important for small island economies), to prioritize investments in food safety linked to domestic public health and trade, to prioritize investments in the development of particular types of new export commodities, to prioritize investments in both SPS and TBT, etc.

2.5. Some of the speakers from developing countries explained how stakeholders in their countries had already used (or planned to use) the tool for such "alternative" purposes. For instance, one of the officials involved in the initial application in Vietnam is using the tool to help prioritize phytosanitary interventions across some 40 possible horticultural products considered for export promotion. Malawi has used the MCDA work to inform the development of a national export strategy. In Namibia, the tool was used to examine options for commodity-based trade of chilled de-boned beef from areas with endemic foot and mouth disease. COMESA plans to use the tool to prioritize regional SPS needs. In Belize, the Belize Trade and Investment Development Service (BELTRAIDE) and the Ministry of Natural Resources and Agriculture intend to use the MCDA framework to prioritize their own programmes and activities. Rwanda plans to use the tool to prioritize investments related to aflatoxin control and horticulture exports.

2.6. In all cases where this tool is used, there was general agreement that it is essential to clearly define the question posed and to ensure clarity on the scope of the analysis. All the stakeholders involved should understand what the tool does and does not do. In cases where the scope / focus of the tool is expanded and/or narrowed, it is necessary to modify the key question asked and to ensure that the appropriate stakeholders are involved. Some participants questioned the feasibility of addressing all SPS areas in one multi-disciplinary group and proposed a step-wise approach. Others, however, regarded the inclusiveness of all SPS areas from the beginning as one the key strengths of the tool.

2.7. The discussions on both days revealed some differences of opinion regarding the merits of an export-oriented, problem-based approach, rather than a broader focus on sectoral capacity building needs more generally. Some partners cautioned that important capacity building needs (e.g. outdated legislation, inadequate human resource capacity), particularly needs related to domestic public health or animal /plant health status within the country, may fall outside an export-oriented, problem-based approach. The OIE noted that it was not surprising that animal diseases control (e.g. Foot and Mouth Disease), which requires substantial up-front and ongoing investments was ranked low in the MCDA analyses carried out in some countries, because such investment has a critical role in more divergent dimensions beyond export increase.

2.8. On the other hand, experts from developing countries reiterated the importance of trade for economic growth and indicated that the MCDA tool provided practical support to prioritize cross-cutting SPS needs based on market access requirements, inform SPS decision-making processes and raise funds (from government and donors) for SPS capacity building. In this context, they welcomed the development of a new tool which complements existing sector-based capacity building evaluation tools.

## **2.2 Synergies with existing SPS-related capacity evaluations tools**

2.9. There was some difference of opinion among participants on the appropriate sequencing in the use of existing sector-specific capacity evaluation tools (including the IPPC's PCE Tool, the OIE's PVS tool, IICA's sector-assessment tools, FAO's food safety capacity assessment tool<sup>2</sup>). IPPC and OIE strongly recommended the use of their sector-specific capacity evaluation tools prior to the use of the MCDA tool.

2.10. Several of the speakers from developing countries referred to the use in their countries of existing sector-specific capacity evaluation tools to identify capacity building gaps. Some pointed to prioritization as a missing next step. Where sector specific capacity evaluations were already carried out and available, they were included in the information dossier and used to inform and enrich the MCDA process. Some speakers noted that sector-specific evaluations were not always available in the public domain and could not therefore be included in the information dossier. The OIE noted that out of the 116 PVS evaluations carried out globally, 84 are available on the OIE website. The OIE further commented that countries own the results of PVS evaluations and are therefore the ones to decide how they are used. Similarly, the IPPC indicated that PCE evaluations are the property of the country concerned, which decides whether to release the results publicly.

2.11. Participants unanimously expressed the view that the sector-specific capacity evaluation tools and the MCDA tool have distinct and different purposes, and are complementary to each other. One does not replace the need for, or utility of, the other. Developing country participants indicated that while the OIE-PVS and IPPC-PCE tools identify all the existing capacity building needs in their respective areas, the MCDA tool is unique in prioritizing SPS investments based on actual/potential market access problems faced, and in linking the expected impacts of investments to various public policy objectives (e.g. trade, employment, etc.).

2.12. The speakers from developing countries expressed their interest in having access to a suite of different tools for different purposes, and pointed to real demand in developing countries for a tool that helps them prioritize SPS investments linked to market access. They underlined that developing countries face resource allocation decisions and choices on an ongoing basis and need to make the best decisions possible with the information available at the time. In this context, they indicated that it is not practical or worthwhile to delay the use of MCDA until after sector-specific assessments have been carried out, and that MCDA could still be usefully employed, even if sector-specific capacity evaluations had not been completed or were outdated.

2.13. The WTO suggested that use of the MCDA tool may generate increased demand to use sector-specific capacity evaluation tools in countries, and asked whether partners would be able to accommodate such increased demand. The OIE replied to WTO that it would continue its effort to meet the requests of OIE Member Countries.

2.14. During the second day of the workshop, FAO shared information on its ongoing work to develop guidance for member countries on how to consider multiple criteria, in a balanced way, in order to support evidence-informed food safety decisions that are objective, transparent and reproducible. This work takes a broad approach on the basis that food safety risk managers (decision-makers) usually have to deal with diverse, often complex issues, including decisions on which are important food safety issues in the first place and how they should be prioritized. In determining appropriate action, they often need to consider the consequences related to more than one risk factor (e.g. impact on public health, exports/imports, food access and security). However, too often, food safety decisions are influenced by only one factor (e.g. an export sector) or those groups with the loudest voice. This work is being piloted at country level to test the

---

<sup>2</sup> FAO shared information on its ongoing work to develop a new food safety capacity building assessment tool that builds on its existing tools and complements the OIE-PVS and IPPC-PCE tools. The tool is being designed as a self-assessment tool and a preliminary version is expected by March 2014.

feasibility of multiple criteria approaches in developing countries, which rely on significant data input and engagement with a range of stakeholders.

### 2.3 Process

2.15. The presentations by experts who have used the MCDA tool in their countries emphasized the iterative nature of the process. For many SPS experts and authorities, using multiple criteria to prioritize cross-cutting SPS investments is a "new" approach (even if MCDA is not an entirely new methodology). In this context, it is important to allow adequate time for preparation and to work through the steps in the process. This includes time to familiarize and explain the approach to the stakeholders involved (including high-level decision-makers), to provide training to the local team involved in the analysis, to consult stakeholders, to track down and obtain the necessary data and information, to provide training on the software, to review, revise and validate the initial analysis and report, etc.

2.16. Several speakers emphasized that the first application was most useful to facilitate discussion among SPS stakeholders about investment priorities and to provide some familiarity with the approach, and that subsequent applications were needed to: (i) increase capacity and confidence to fully understand and apply the methodology; and (ii) institutionalize the use of tool for their own planning purposes. Some speakers indicated that the utility and benefits of using the tool increased the more often the tool is used.

2.17. External support was considered useful in this context given the relatively "new" way of thinking inherent in the approach, and the diversity of different stakeholders and interests involved. While the aim should be to equip experts in developing countries to apply the tool themselves, some participants referred to the value of having a neutral, external expert to facilitate the in-country applications and also to avoid any appearance of bias in the findings, particularly in cases where any one government authority was perceived as leading the use of the tool. In this context, a recommendation was made to train a group of regional facilitators.

2.18. Effective leadership was identified by several speakers from developing countries as a factor critical to the successful application of the tool, as well as to "institutionalize" the tool within ongoing SPS decision-making processes. Given the cross-cutting and interdisciplinary nature of SPS, speakers indicated that the process of using of the tool is enhanced where good leadership exists on SPS issues and there is already dialogue among public and private sector. Experiences from Uganda pointed to the value of having an SPS Committee with strong ownership and participation from the public and private sector to drive the process. In some countries, regional authorities (COMESA) facilitated the tool under the leadership of national SPS authorities.

2.19. Several speakers commented on the importance and value of the process, in terms of facilitating dialogue among different stakeholders on SPS priorities, compiling data and information, etc. In Belize, an added benefit of the MCDA work was to increase recognition and appreciation, among industry and non-SPS government authorities, of BAHA's role and the need for adequate funding for functions delivered by BAHA. Several speakers highlighted the resulting report as a useful "starting point" rather than an "end point" in the process.

2.20. Other points discussed with regard to the process focused on: (i) the importance of transparency and of clearly documenting and justifying all the options included or excluded from the choice set; (ii) the need to collect, review and clearly structure the available data and information before doing the analysis using the computer software; and (iii) the importance of taking sufficient time to cost the SPS investments to be prioritized (perhaps the most difficult part of the process). An additional point discussed was who was responsible for conducting the MCDA tool and to whom the results would be presented for the purpose of final decision-making.

2.21. In terms of the computer software used to generate rankings near the end of the methodology, some speakers (e.g. Ethiopia) highlighted the need to increase access to the software and suggested that it would be beneficial to have access to multi-user software, and to ensure sufficient time for hands-on training in the use of the software.

## **2.4 Stakeholder involvement and dialogue**

2.22. Speakers and participants recognized the importance of good stakeholder representation and participation in the process. In addition to SPS stakeholders, some speakers recommended involving officials responsible for national policy and planning in the use of the tool. Most speakers from developing countries highlighted how use of the tool had enhanced dialogue among various government authorities and the private sector on SPS capacity needs and priorities. Some participants recognized that one of the most attractive aspects of the tool is its ability to bring together multiple stakeholders (public, private, academic) involved in the SPS area, and to enhance dialogue and coordination among them.

2.23. Some speakers from developing countries (e.g. Mozambique) linked weaknesses in their applications of the tool to inadequate involvement of some stakeholders. Several speakers noted that while it is useful to involve the private sector, this is sometimes difficult in practice, particularly where public-private sector communication or cooperation on SPS matters is weak. FAO noted that in the use of the tool to date there had been limited involvement of health ministries, which are an important stakeholder for food safety.

2.24. The importance of enhancing public-private sector dialogue and coordination on SPS management was highlighted as a general need in many countries, and the STDF drew attention to its work on national SPS coordination mechanisms. In cases where SPS committees exist but are essentially inactive, some participants suggested that the MCDA tool could be used to help invigorate and revitalize such committees by catalysing discussions among public and private sector stakeholders on SPS priorities.

## **2.5 Data quality and availability**

2.25. A significant part of the discussion focused on the availability and quality of data used during the analysis. Speakers and participants acknowledged that the best results are obtained when credible and high-quality data is available. The representatives of the standard setting organizations noted that the best way to get the highest quality data is to first apply the sector-specific capacity evaluation tools (PVS, PCE and FAO food safety tool), after which the country takes that data and feeds it into the MCDA process to ensure the best possible outcome. At the same time, access to data and information was identified as a frequent challenge. Although some participants questioned whether the MCDA tool should be used in cases where data availability and quality were poor, developing country participants expressed the view that the tool could usefully be applied even where data availability and quality was imperfect, provided that data gaps or uncertainties were clearly acknowledged and documented. One of the benefits identified with use of the tool is that it can help to identify data gaps as well as needs to improve the availability of data. Once more or better data become available, the MCDA prioritization can be re-applied.

2.26. Where data and information is limited or of questionable quality, there was recognition of the importance of giving adequate attention to uncertainty, and to very clearly explain any uncertainty or "concerns" related to the results to the stakeholders involved, including high-level decision-makers. Ideally, missing or weak data could subsequently be identified and collected and included in the analysis.

## **2.6 Criteria and weights**

2.27. Speakers and participants recognized the importance of the criteria and weights used to prioritize the investment options. In the experiences to date, while the decision criteria tended not to differ significantly from country to country, the weights were more likely to differ. Some speakers asked for more attention to enhance the objectivity and rigor in the process of defining decision criteria and weights. In this regard, the question was asked as to whether it would be beneficial to base the decision criteria and weights on national development priorities and socio-economic development plans.

2.28. Participants discussed which stakeholders should be involved in defining the decision criteria and whether it would be useful to involve high-level decision-makers or other officials responsible for socio-economic development, rather than limiting the definition of criteria and weights to SPS experts involved in the process. A suggestion was made to encourage the use of standardized criteria and weights. However, the general opinion was that in different countries, there may be

different constituencies involved in setting decision criteria and weights, and that this should depend on the country context.

## **2.7 Initial experiences and outcomes**

2.29. While this work is relatively recently, speakers from developing countries pointed to some of the outcomes and benefits of the work in their countries. For instance, in Belize, the information sheets compiled during the MCDA work clarified the unfeasibility of some proposed investments (which were known to be favoured by high-level decision-makers) and helped avoid investments in areas of low-return. At the same time, the evidence generated through the analysis prompted two national authorities (BELTRAIDE and the Ministry of Foreign Affairs) to allocate and identify additional sources of funding for two of the SPS investments included in the analysis, which was seen as unprecedented.

2.30. COMESA reiterated that a lot of interest has been generated through the use of the tool in COMESA member states to date, and noted that COMESA had fully supported, using its own internal resources, four of the seven MCDA applications already implemented in COMESA member states. Based on the initial experiences and outcomes achieved, there is increasing demand from other COMESA member states to use the tool, including to mainstream SPS investments within the Comprehensive Africa Agriculture Development Programme (CAADP). COMESA underlined that the tool is perfectly suited for this purpose and noted that some COMESA member states (e.g. Seychelles) are already using the MCDA process to inform the development of their CAADP investment plan.

2.31. Some countries (e.g. Malawi, Mozambique) indicated that the information cards produced through the MCDA work have provided a valuable basis for project design. The speaker from USAID expressed the view that MCDA increases the rigour involved in project selection, and indicated USAID's interest in continued use of this methodology, including support for revisions and improvements to the tool and its wider use in developing countries.

2.32. Some participants suggested that it would be beneficial to further monitor and evaluate the outcomes of the MCDA work at the country level. Several participants from developing countries expressed clear country demand to continue this work. A recommendation was made to establish a small group of people from countries who have used the tool to identify good practices and contribute to the further improvement and finalization of a user-friendly guide. Some participants from developing countries recommended that it would be beneficial to have a critical mass of people familiar with the MCDA tool at the country/regional level, and able to apply it in order to enhance sustainability and mainstream use of the MCDA approach into national planning and priority-setting processes. In response, a question was raised as to the composition of the small group: would these include government representatives and/or private sector individuals?

### **Recommendations for follow-up:**

- i. Clarify the scope of the tool to: (i) indicate its particular focus on prioritizing SPS investments for market access; and (ii) better reflect that "multi-criteria decision analysis" represents just one component of the process. In this regard, participants also recommended to revise and to clarify the title of the "MCDA" tool. Some partners further recommended greater clarity on the use of terms (identification, prioritization, compliance, etc.).
- ii. Given the newness of this approach in most developing countries, several participants from developing countries recommended that the STDF should revise, further improve and simplify the user guide, including through the incorporation of country case studies and examples.
- iii. Create a group of selected developing country experts familiar with the tool, who could contribute (as a peer review group) to the simplification and finalization of the user guide.
- iv. Select (on the basis of clear and appropriate criteria) and train a group of neutral facilitators (including from academic/research and/or government authorities) in developing countries/regions on the MCDA tool in order to enable SPS experts from developing countries to use the process in their countries/regions and enhance sustainability in the continued use of the tool.

- v. Promote greater use of the MCDA tool as part of national/regional planning and priority-setting processes including the prioritization of SPS capacity building options within CAADP, with the clear understanding that the MCDA is not a substitute for the capacity evaluation tools available from the standard setting organizations, and that MCDA is better undertaken in conjunction with the results obtained through application of these tools.
- vi. Monitor and evaluate the ongoing use of the tool to learn from and disseminate the experiences and lessons.

**APPENDIX 1: LIST OF PARTICIPANTS**

<b>Name</b>	<b>Country/Organization</b>	<b>E-mail address</b>
Maria ALBARECE	The Philippines Mission	<a href="mailto:m.albarece@philippineswto.org">m.albarece@philippineswto.org</a>
Anbessie ALEMAYEHU MEKONNEN	Ethiopia	<a href="mailto:alemalemayehu22@gmail.com">alemalemayehu22@gmail.com</a>
Martha BYANYIMA	Developing country expert (COMESA)	<a href="mailto:mbyanyima@comesa.int">mbyanyima@comesa.int</a>
Delilah CABB	Developing country expert (Belize Agricultural Health Authority)	<a href="mailto:bahasps@btl.net">bahasps@btl.net</a>
Dermot CASSIDY	USAID/USDA	<a href="mailto:Dermot.cassidy@gmail.com">Dermot.cassidy@gmail.com</a>
Amy CAWTHORNE	WHO	<a href="mailto:cawthornea@who.int">cawthornea@who.int</a>
Raphael COLY	AU-IBAR	<a href="mailto:Raphael.Coly@au-ibar.org">Raphael.Coly@au-ibar.org</a>
Tim CORRIGAN	WHO	<a href="mailto:corrigan@who.int">corrigan@who.int</a>
Ana DAVID TIMANA	Mozambique	<a href="mailto:adtimana2004@yahoo.com.br">adtimana2004@yahoo.com.br</a>
Nagat EL TAYEB	Developing country expert	<a href="mailto:neltayb@yahoo.com">neltayb@yahoo.com</a>
Craig FEDCHOCK	IPPC/FAO	<a href="mailto:Craig.Fedchock@fao.org">Craig.Fedchock@fao.org</a>
Louise FLAVAHAN	WTO intern	<a href="mailto:Louise.Flavahan@wto.org">Louise.Flavahan@wto.org</a>
Michael FRANCOM	USDA	<a href="mailto:Michael.Francom@fas.usda.gov">Michael.Francom@fas.usda.gov</a>
Solomon GEBEYEHU	USAID/USDA SPS coordinator	<a href="mailto:solomon.gebeyehu@gmail.com">solomon.gebeyehu@gmail.com</a>
Isaac B. GOKAH	Malawi	<a href="mailto:isaacb.gokah@gmail.com">isaacb.gokah@gmail.com</a>
Anneke HAMILTON	WTO	<a href="mailto:Anneke.Hamilton@wto.org">Anneke.Hamilton@wto.org</a>
Spencer HENSON	Consultant	<a href="mailto:s.henson@ids.ac.uk">s.henson@ids.ac.uk</a>
Simon HESS	EIF	<a href="mailto:Simon.Hess@wto.org">Simon.Hess@wto.org</a>
Marlynne HOPPER	STDF	<a href="mailto:Marlynne.Hopper@wto.org">Marlynne.Hopper@wto.org</a>
Pablo JENKINS	STDF	<a href="mailto:Pablo.Jenkins@wto.org">Pablo.Jenkins@wto.org</a>
Mary KENNY	FAO	<a href="mailto:Mary.Kenny@fao.org">Mary.Kenny@fao.org</a>
Mathieu LORIDAN	ITC	<a href="mailto:lordan@intracen.org">lordan@intracen.org</a>



Name	Country/Organization	E-mail address
Minda MANANTAN	The Philippines	<a href="mailto:Minda.manantan@yahoo.com">Minda.manantan@yahoo.com</a>
Tone MATHESON	Norway	<a href="mailto:Tone-Elisabeth.Matheson@lmd.dep.no">Tone-Elisabeth.Matheson@lmd.dep.no</a>
Poonam MOHUN	ITC	<a href="mailto:mohun@intracen.org">mohun@intracen.org</a>
Daniel NJIWA	COMESA	<a href="mailto:dnjiwa@comesa.int">dnjiwa@comesa.int</a>
Masatsugu OKITA	OIE	<a href="mailto:m.okita@oie.int">m.okita@oie.int</a>
George OPIYO	Uganda	<a href="mailto:george.lanyuru@hotmail.com">george.lanyuru@hotmail.com</a>
Simon PADILLA	STDF	<a href="mailto:Simon.Padilla@wto.org">Simon.Padilla@wto.org</a>
Ana PERALTA	IPPC/FAO	<a href="mailto:Ana.Peralta@fao.org">Ana.Peralta@fao.org</a>
Andrijana RAJIC	FAO	<a href="mailto:Andrijana.rajic@fao.org">Andrijana.rajic@fao.org</a>
Khemraj RAMFUL	ITC	<a href="mailto:ramful@intracen.org">ramful@intracen.org</a>
Manon SCHUPPERS	Switzerland, SAFOSO	<a href="mailto:Manon.Schuppers@safoso.ch">Manon.Schuppers@safoso.ch</a>
Shakieda SEALY	WTO Intern	<a href="mailto:Shakieda.Sealy@wto.org">Shakieda.Sealy@wto.org</a>
Yusuke SHIMIZU	Japan, MAFF	<a href="mailto:Y_shimizu@nm.maff.go.jp">Y_shimizu@nm.maff.go.jp</a>
Sonethanou SINGDALA	Dutch Trainee	<a href="mailto:s.singdala@laoftpd.com">s.singdala@laoftpd.com</a> <a href="mailto:Sonethanou.Singdala@wto.org">Sonethanou.Singdala@wto.org</a>
Yona SINKALA	Zambia	<a href="mailto:ysinkala@gmail.com">ysinkala@gmail.com</a>
Melvin SPREIJ	STDF	<a href="mailto:Melvin.Spreij@wto.org">Melvin.Spreij@wto.org</a>
Gretchen STANTON	WTO	<a href="mailto:Gretchen.Stanton@wto.org">Gretchen.Stanton@wto.org</a>
Yolanda STARKE	USDA/FAS	<a href="mailto:Yolanda.Starke@fas.usda.gov">Yolanda.Starke@fas.usda.gov</a>
Debbie SUBERA-WIGGIN	USFDA	<a href="mailto:debbie.subera-wiggin@fda.hhs.gov">debbie.subera-wiggin@fda.hhs.gov</a>
Sidney SUMA	Developing country expert (Seychelles)	<a href="mailto:sidney.suma@pcusey.sc">sidney.suma@pcusey.sc</a>
Viet Cuong TRAN	Vietnam	<a href="mailto:cuongtv.htqt@mard.gov.vn">cuongtv.htqt@mard.gov.vn</a>
Ephrance TUMUBOINE	Uganda	<a href="mailto:etumuboine@gmail.com">etumuboine@gmail.com</a>

## **APPENDIX 2: STDF WORKSHOP TO REVIEW WORK TO DATE ON THE USE OF THE MULTI-CRITERIA DECISION ANALYSIS (MCDA) TOOL TO PRIORITIZE SPS CAPACITY BUILDING OPTIONS AND TO DISCUSS OPTIONS TO IMPROVE THE MCDA TOOL**

**WTO, GENEVA, 24-25 JUNE 2013**

### **OVERVIEW AND PROGRAMME**

#### **Introduction**

1. The Standards and Trade Development Facility (STDF) has supported the development of a decision-support tool, based on Multi Criteria Decision Analysis (MCDA), to help developing countries prioritize options to strengthen sanitary and phytosanitary (SPS) capacity.<sup>3</sup> The purpose of the MCDA framework is to improve the effectiveness of decisions on where to allocate public, private and/or donor resources aimed at enhancing SPS capacity. As such, the tool helps to: (i) enhance the economic efficiency of SPS resource allocation decisions so that scarce resources are allocated in a manner that best meets a country's economic development, poverty alleviation, public health and/or other objectives; (ii) promote more transparent and accountable choices between multiple investment options; and (iii) facilitate dialogue and coordination among public and private sector stakeholders with an interest in SPS and encourage more inclusive decision-making processes.

2. The MCDA tool provides a structured framework for public and private sector stakeholders to prioritize SPS capacity building options (investments), which can differ significantly in their characteristics, as well as the associated flow of costs and benefits over time. These options are defined on the basis of: (i) the product(s) affected; (ii) the specific SPS issue/problem faced by exporters of the product(s) whether relating to existing or potential exports; (iii) the export market(s) where this issue/problem is faced; and (iv) the distinct capacity building options that would address the issue faced. The framework complements existing SPS-related capacity evaluation tools<sup>4</sup> developed by international and regional organizations to identify capacity building needs in animal health, plant health, food safety, etc. It is optimal that the results of these capacity evaluation tools, where available in the public domain, as well as other relevant data and information, inform the selection of the capacity building options to be considered during the MCDA process.

3. In 2011 and 2012, the MCDA framework was applied in a number of countries to identify and prioritize options to strengthen SPS capacity. The STDF facilitated three pilot applications of the MCDA framework at the country level (in Mozambique, Zambia and Vietnam), based on an expression of interest from the relevant national SPS authorities in response to a call from the STDF Secretariat. These pilot applications were very useful to refine and improve the methodology as well as the process through which the framework is applied. Following the STDF pilots, stakeholders in some other countries, specifically government authorities in Ethiopia, Malawi, Rwanda and Uganda with the support of COMESA and USDA/USAID, initiated work to use the MCDA framework themselves. In addition, in 2012, the STDF Working Group approved a project, requested by the Belize Agricultural Health Authority, to apply the MCDA framework in cooperation with national public and private sector stakeholders. USAID is finalizing work in Namibia to use the MCDA framework to examine options for commodity-based trade of chilled de-boned beef from areas with endemic foot and mouth disease. See Annex 2 for information on MCDA work to date.

4. The country-level applications provided useful lessons. These included the importance of: (i) sufficient preparation to encourage participation of all the concerned national stakeholders and ensure access to relevant data and information; (ii) sensitizing high-level decision-makers on the role and value of the MCDA framework to build political commitment and support for the results

---

<sup>3</sup> Available at: [http://www.standardsfacility.org/Files/EconAnalysis/MCDA\\_FrameworkGuide.pdf](http://www.standardsfacility.org/Files/EconAnalysis/MCDA_FrameworkGuide.pdf)

<sup>4</sup> These tools include FAO's biosecurity and food safety capacity evaluation tools, the IPPC's Phytosanitary Capacity Evaluation (PCE) Tool and the OIE Tool for the Evaluation of Performance of Veterinary Services (PVS) (5th Edition). For more information, see STDF (2011, 2<sup>nd</sup> Edition) *SPS-related Capacity Evaluation Tools: An overview of tools developed by international organizations*. Available at: [http://www.standardsfacility.org/Files/Publications/STDF\\_Capacity\\_Evaluation\\_Tools\\_Eng.pdf](http://www.standardsfacility.org/Files/Publications/STDF_Capacity_Evaluation_Tools_Eng.pdf)

generated; (iii) identifying ways, appropriate to the particular situation, to adequately engage the private sector including producers, exporters and their associations; (iv) involving an applied economist, in addition to experts in food safety, animal and plant health and trade; (v) re-applying the tool on a periodic basis, for instance, to incorporate new data or address new SPS issues; and (vi) having an external expert to facilitate the process, particularly in contexts where dialogue and coordination among SPS stakeholders is still limited. Finally, the in-country MCDA applications also highlighted that using the MCDA framework to prioritize SPS capacity building options is more productive and takes less time in countries where SPS-related sector assessment tools (e.g. the OIE's PVS Tool, the IPPC's PCE Tool, IICA's PVS tools) have been used, since these have already identified key SPS areas that need strengthening. In cases where the findings of such sector-specific capacity assessments were not available in the public domain, the involvement of senior staff from the relevant regulatory authorities offered "second-hand / indirect" access to this knowledge.

5. Linked to the in-country work, the STDF organized two regional training workshops on the MCDA framework in Johannesburg, South Africa (August, 2011) and Bangkok, Thailand (November 2012). The purpose of these events was to: (i) present the MCDA approach; (ii) share practical experiences from countries where it was used; and (iii) equip SPS experts from other countries with knowledge and skills to apply this approach. Participants included mid- to high-level officials responsible for food safety, animal health, plant health and/or trade. There was overall agreement during these workshops that the MCDA framework: (i) presents a useful and powerful tool to guide and support SPS decision-making; (ii) is likely to work best and be most effective in countries where there is already dialogue and coordination among public and private stakeholders involved in the SPS area; and (iii) provides a useful snapshot of the potential trade impacts directly associated with investments in the SPS capacity building options considered.

6. Discussions in STDF Working Group meetings have indicated the interest of several members, including developing country experts, in the MCDA work, and pointed to the potential usefulness of the MCDA tool to prioritize capacity building needs and determine the expected impacts of investments through a participatory and transparent process, that can also make a strong contribution to enhance SPS dialogue and coordination at the country level. Some Working Group members have proposed exploring options to apply the MCDA framework within particular sub-sectors of the SPS area. At the same time, some members of the Working Group have emphasized the need to ensure that the MCDA framework is not misused, which may require some adjustments to the methodology. In this context, in October 2012 the Working Group recommended that the STDF Secretariat organize a workshop in Geneva, as part of the STDF work plan for 2013, to enable partners and other stakeholders involved in the MCDA work to take stock of and review work to date and discuss possible options to improve the MCDA framework and its use in practice.

## **Purpose of the workshop**

7. The purpose of this workshop is to review and take stock of available experiences and lessons learned where the MCDA framework has been used to prioritize SPS capacity build needs, and to consider options to improve the methodology and process through which it is applied. As such, ample time will be available for interventions from SPS experts from countries where the framework has been used.

8. The specific objectives of the workshop are to:

- i. take stock of experiences and lessons learned from countries where the MCDA framework has been used to prioritize SPS capacity building needs;
- ii. identify, discuss and agree on concrete options to further improve and refine the MCDA framework and its practical application;
- iii. make recommendations to guide future STDF work on MCDA including the development of synergies with other related work of STDF partners.

9. The workshop will also include an introduction to and discussion of the features of the MCDA framework and D-Sight computer software to enable participants to make informed comments and suggestions on improvements to the methodology and its practical application. The number of participants will be limited to approximately 40 to facilitate an interactive and focused discussion. The workshop will take place in English (without interpretation). The provisional programme is provided in Annex 1.

## **Annex 1: Programme**

### **STDF Workshop to Review MCDA Work to Date and Discuss Options to Improve the MCDA Framework**

#### **Monday, 24 June 2013**

- 09.00: Welcome, opening remarks and objectives of the workshop, STDF Secretariat
- 09.15: Setting the scene: Context, purpose and scope of the MCDA framework to prioritize SPS capacity building options, Spencer Henson
- 10.30: *Coffee*
- 10.45: Steps 1 and 2 in the MCDA framework, Spencer Henson
- 11.00: Break-out session: Defining capacity building options using the "Aflandia" case study
- 12.00: Feedback session: Review, analysis and discussion on Steps 1 and 2, including views from developing country stakeholders who have used the MCDA tool, STDF partners and others on possible modifications / improvements to Steps 1 and 2
- 12.30: *Lunch*
- 13.30: Steps 3 and 4 in the MCDA framework, Spencer Henson
- 13:45: Break-out session: Defining information cards for "Aflandia" case study
- 14:45: Feedback session: Review, analysis and discussion on the definition of decision criteria and weights, compilation of information cards and sifting of options, including views from developing country stakeholders who have used the MCDA tool, STDF partners and others on possible modifications / improvements to Steps 3 and 4
- 15.30: *Coffee*
- 16.00: Steps 5, 6 and 7 in the MCDA framework including use of the D-Sight computer software, Spencer Henson
- 16.30 Feedback session: Review, analysis and discussion on Steps 5, 6 and 7, including views from developing country stakeholders who have used the MCDA tool, STDF partners and others on possible modifications / improvements to Steps 5, 6 and 7
- 17.45: Summary and closing remarks

#### **Tuesday, 25 June 2013**

- 09.00: Overview of day two
- 09.15: Reflections from SPS authorities, Regional Economic Communities, STDF partners and donors on the MCDA framework, process, experiences, lessons learned, followed by plenary discussion on possible modifications, improvements and opportunities for synergies with related ongoing work
- Belize: Delilah Cabb, Coordinator, Sanitary and Phytosanitary Enquiry Point, Belize Agricultural Health Authority and STDF Developing Country Expert
  - COMESA: Martha Byanyima, CAADP Regional Process Facilitator / SPS Expert, Common market for Eastern and Southern Africa and STDF Developing Country Expert

- Ethiopia: Anbessie Alemayehu Mekonnen, Veterinary Public Health, Inspection and Quarantine Unit, Animal and Plant Health Regulatory Directorate, Ministry of Agriculture
- Malawi: Isaac B. Gokah, Trade Advisor, Ministry of Industry and Trade

10.30: *Coffee*

11.00: Continued: Reflections on the MCDA framework, process, experiences, lessons learned, and plenary discussion on possible modifications, improvements and opportunities for synergies with related ongoing work

- Mozambique: Ana David Timana, Deputy Director, National Institute for Fish Inspection
- Seychelles: Sidney Suma, GOS-UNDP-GEF Biosecurity Project Programme Coordination Unit and STDF Developing Country Expert
- Uganda: Ephrance Tumboine, Principal Agriculture Inspector/Phytosanitary & Quarantine, Ministry of Agriculture Animal Industry & Fisheries
- Vietnam: Tran Viet Cuong, SPS Office, Ministry of Agriculture and Rural Development
- Zambia: Yona Sinkala, Chief Veterinary Epidemiologist, Head of National Livestock Epidemiology and Information Centre, Department of Veterinary and Livestock Development, Ministry of Livestock and Fisheries Development

12:30 *Lunch*

14:00 Reflections from STDF partners and donors on the MCDA framework, process, experiences, lessons learned, and plenary discussion on possible modifications, improvements and opportunities for synergies with related ongoing work

- FAO: Food Safety and Codex Unit
- IPPC Secretariat
- OIE: Masatsugu Okita, Chargé de mission
- USAID: Dermot Cassidy, SPS Coordinator for Southern Africa (contractor)

15.30: *Coffee*

16:00: Going forward: Discussion of specific and practical options to improve and refine the MCDA framework and process through which it is used, expectations, etc. Moderated by the STDF Secretariat

17.00: Concluding remarks and close of workshop

## Annex 2: Overview and Status of MCDA Work at the Country Level<sup>5</sup>

Country	Overview of MCDA work to date, outputs and experiences
<b>AFRICA</b>	
Ethiopia	<ul style="list-style-type: none"> <li>• COMESA and USAID/USDA worked with SPS stakeholders in Ethiopia to use the MCDA framework in 2012.</li> <li>• Representatives of public and private sector stakeholders participated in a stakeholder workshop on 6-10 August to agree on SPS capacity building options to be included in the analysis.</li> <li>• National experts playing a leading role in the SPS MCDA work came from the phytosanitary services, the Ministry of Trade, academia, the Ministry of Health, and UNIDO.</li> <li>• The draft report was distributed to participants in September 2012. Following the inclusion of comments, a revised draft was released at the end of November 2012. The revised final report (available on the STDF website) takes into account additional research and more detailed studies (including improved data) on some of the capacity building options.</li> </ul>
Malawi	<ul style="list-style-type: none"> <li>• The Ministry of Industry and Trade (MOIT) led efforts to apply the MCDA framework in Malawi in 2012 in collaboration with concerned stakeholders including representatives of government, the private sector and donors. USAID provided technical support and covered the costs associated with national MCDA workshops. A small team of government officials led the data collection and analysis work (including report writing), which enhanced national ownership and developed local skills to re-use the MCDA approach. The MCDA report is available on the STDF website.</li> <li>• The MCDA work was used to support the implementation of ongoing national development strategies, including the National Export Strategy, by identifying SPS-related challenges that need to be addressed in the development of key export product clusters. It was also used to inform the development of funding proposals, including two PPG requests to the STDF.</li> <li>• The MCDA work helped to encourage public-private dialogue on how to enhance SPS capacity. The government considers that it provides a greater degree of confidence about where to invest resources in SPS capacity building to achieve the greatest impact.</li> </ul>

<sup>5</sup> Countries in which the STDF Secretariat was directly involved in the MCDA work are marked with an "\*". The STDF website provides access to available country reports: <http://www.standardsfacility.org/en/TAEcoAnalysis.htm>.

Mozambique*	<ul style="list-style-type: none"> <li>• The MCDA work in Mozambique took place in April 2011 and was the first application facilitated by the STDF. As such, this was a useful "pilot" and the experiences were valuable to adapt the methodology and process.</li> <li>• Representatives from government departments involved in the SPS area, as well as research institutes and academia participated in the MCDA stakeholder workshops. While efforts were made to engage the private sector, no industry representatives attended the first stakeholder workshop. Direct contacts with the private sector were subsequently used to gather data for the analysis.</li> <li>• At the time of the first stakeholder workshop, FAO Mozambique hosted a briefing session to enable the preliminary experiences and results to be shared with donors and development partners.</li> <li>• USAID/USDA provided funds for the STDF Consultant leading the MCDA work to return to Mozambique to discuss and revise the draft report with national stakeholders, and to deliver training on the use of the D-Sight software. The MCDA report (April 2012) is available on the STDF website.</li> <li>• Based on the MCDA work, USAID approved funds for two of the top-ranked capacity building options.</li> </ul>
Namibia	<ul style="list-style-type: none"> <li>• USAID collaborated with the Millennium Challenge Corporation and the Wildlife Conservation Society to use the MCDA tool to incorporate social and environmental criteria into a cost benefit analysis focused on the development of commodity-based exports of beef from the East Caprivi region of Namibia. In this context, the MCDA tool was modified slightly to be able to analyse and rank various scenarios within a single capacity building option.</li> <li>• The work involves all concerned stakeholders in Namibia including the ministries directly involved (agriculture, environment and tourism), the private sector, conservationists and cattle owners directly affected.</li> <li>• In order to overcome data gaps, a significant effort is being made to gather and generate the data needed to inform the analysis. This process involved short-term technical assistance (approx. 4 months), the review of over 700 reports and peer reviewed papers, and six specially researched "mini reviews" on various criteria used in the analysis.</li> <li>• The MCDA report (Feb. 2013) is available on the STDF website.</li> </ul>
Rwanda	<ul style="list-style-type: none"> <li>• USAID/USDA used the MCDA framework in Rwanda in 2012, in consultation with a limited number of national stakeholders, to inform its own decisions on funding for SPS capacity building. The report of this work (Nov. 2012) is available on the STDF website.</li> <li>• Based on the analysis, USAID approved funding for a scoping study (to be implemented by IITA) to determine the importance of aflatoxins in the Rwandan diet.</li> <li>• The experience in Rwanda prompted USAID/USDA to offer support for a second application of the MCDA framework, this time as a country-led exercise with involvement of all the concerned SPS stakeholders. Rwandan stakeholders have confirmed their interest to apply the MCDA work as an initiative of the national SPS committee, with support from COMESA. This work is ongoing.</li> </ul>

The Seychelles	<ul style="list-style-type: none"> <li>• In Feb. 2013, the Ministry of Natural Resources and Industry requested COMESA to conduct an in-country training workshop on the MCDA tool. The Ministry has expressed its interest to use this tool which will be "extremely useful and will complement national SPS efforts on various fronts ... and will enable to take informed decisions and invest limited (human, financial and utility) resources for the best possible SPS outcome".</li> <li>• Consultations with SPS stakeholders were initiated in June 2013 and the MCDA work is ongoing.</li> </ul>
Uganda	<ul style="list-style-type: none"> <li>• COMESA and USAID/USDA worked with SPS stakeholders in Uganda to use the MCDA framework in 2012.</li> <li>• Representatives of public and private sector stakeholders participated in a stakeholder workshop on 30 July to 1 August to agree on SPS capacity building options to be included in the analysis.</li> <li>• National experts playing a leading role in the SPS MCDA work come from the Phytosanitary Services, the Ministry of Trade and the Uganda National Bureau of Standards.</li> <li>• A draft report was distributed to stakeholders and revised on the basis of comments received and the inclusion of new and improved data from additional research into some of the capacity building options. The final report (March 2013) is available on the STDF website.</li> <li>• FAO/WHO are involved in related work in Uganda to develop a decision-making process (using MCDA) to determine how food safety priorities can be established at the national level. This work considers domestic food safety, public health and food security, but also drivers of export markets, economic earnings potential. The Ministry of Health is leading this work, which also seeks to engage stakeholders from other relevant Ministries, private sector and interest groups (e.g. consumers). The STDF Secretariat facilitated contact between FAO and USAID/USDA for FAO to obtain the information collected for the SPS MCDA work. FAO subsequently invited the national experts leading the SPS MCDA work to the FAO/WHO food safety / MCDA workshop in December 2012.</li> </ul>



Zambia*	<ul style="list-style-type: none"> <li>• The MCDA work in Zambia, facilitated by the STDF Secretariat in June 2011, was the second pilot in Africa. Zambia was selected for this STDF-led application based on an expression of interest from a graduate of the advanced SPS course (currently chair of the national SPS Committee in Zambia).</li> <li>• The work involved stakeholders from the public and private sector and academia in a stakeholder workshop to identify the SPS options to be prioritized and agree on decision criteria and weights.</li> <li>• Plans were subsequently made to organize a follow-up meeting to discuss, validate and revise the draft MCDA report, as well as a targeted training on the D-Sight computer software (USAID/USDA offered funds for the travel of the international consultant and to purchase the software), however, this work was delayed for various reasons (scheduling difficulties, limited availability of key officials, etc.). Following a discussion on the MCDA work at the WTO national SPS workshop in Zambia (Nov. 2012), some participants expressed their interest to re-run and revise the analysis. Government authorities have indicated their interest to revise the draft MCDA report and re-run the analysis. USAID has offered to facilitate this work and preparations are underway.</li> <li>• The STDF Secretariat has shared information on the MCDA work with the World Bank, FAO, WHO, UNIDO and others in the context of plans to assess food safety capacity building needs in Zambia under the Global Food Safety Partnership (GFSP) in 2013. While the scope of the STDF MCDA work was to <i>prioritize</i> SPS-related capacity building options (and therefore much broader than food safety), there are obvious linkages and synergies, which could be explored. Options exist, for instance, to (i) re-apply the MCDA SPS analysis to take into account the findings of the GFSP food safety assessment; and/or (ii) use the MCDA methodology to <i>prioritize</i> the food safety capacity building needs which will be identified through the GFSP food safety assessment, based on appropriate decision criteria and weights identified by the food safety stakeholders concerned.</li> </ul>
<b>ASIA &amp; PACIFIC</b>	
Indonesia	<ul style="list-style-type: none"> <li>• Following the participation of two government officials and an economist from the World Bank Office in Jakarta in the STDF MCDA workshop in Bangkok, the World Bank team in Jakarta is trying to mobilize funding from trust funds for SPS consultations and capacity building. There is high demand for such activities, particularly for coffee and cocoa, however, there is currently no funding available.</li> </ul>
The Philippines	<ul style="list-style-type: none"> <li>• Following the participation of government officials from the Philippines in the STDF MCDA workshop in Bangkok, the Under-Secretary and Chief of Staff of the Department of Agriculture in the Philippines expressed his support for the MCDA framework to be used to prioritize SPS capacity-building needs in the Philippines. In this regard, the Bureau of Agriculture and Fisheries Product Standards was requested to take the lead on follow-up and obtain any necessary assistance for the MCDA framework to be used.</li> </ul>

Vietnam*	<ul style="list-style-type: none"> <li>• The MCDA work was initiated as part of the STDF work plan for 2012 following an expression of interest from the SPS Office in the Ministry of Agriculture and Rural Development (MARD).</li> <li>• The work is led by the SPS Office and involves a small team of technical experts from the Department of Animal Health, Department of Plant Health, the National Agro-Forestry-Fisheries Quality Assurance Department (NAFIQAD), the Food Safety Authority, Ministry of Trade, etc.</li> <li>• Initial stakeholder consultations took place in Sep. 2012 in Hanoi and HCMC, followed by data collection and analysis. A workshop took place on 11 June to discuss and validate the draft report (now under finalization).</li> </ul>
<b>LATIN AMERICA &amp; CARIBBEAN</b>	
Belize*	<ul style="list-style-type: none"> <li>• The MCDA work in Belize was carried out from January to September 2012 under an STDF project, requested by the Belize Agricultural Health Authority (BAHA) and approved by the STDF Working Group in October 2011.</li> <li>• Led by a small team of officials from BAHA, the MCDA work actively involved several government departments, the private sector, industry associations and academia with an interest in SPS issues.</li> <li>• Two national stakeholder workshops were organized during the process. Eight capacity building options were prioritized in the final analysis. Plans are under way to seek national resources for at least three of the top four options, which require minimal investment but have important impacts on product diversification and small farmers. The other options will be included in the Aid for Trade Strategy, particularly since the MCDA work clearly pointed out the upfront investment needed and the potential impact these would have once addressed.</li> <li>• BAHA considered the work in Belize very successful and intends to re-apply the tool based on the availability of new data, additional resources or the conclusion of existing projects and programmes. BAHA also plans to use the MCDA framework to help develop a new strategic plan for BAHA.</li> <li>• Based on its involvement in the MCDA work, the Belize Trade and Investment Development Service (BELTRAIDE) and the Ministry of Natural Resources and Agriculture have expressed interest to use the MCDA framework to prioritize their own programmes and activities.</li> <li>• The final project report identified some key lessons and conclusions of this work: (i) the importance of good stakeholder representation to identify all the key issues; (ii) the synergies with the SPS-related capacity evaluation tools (PCE, OIE-PVS, IICA PVS, etc.) and the benefits of first applying these evaluation tools to identify major capacity needs to be considered during the MCDA work; (iii) the benefits of the MCDA analysis to provide a snapshot of the potential trade impacts linked to strengthening particular SPS capacity options identified; and (iv) the importance of carefully assigning decision weights.</li> </ul>