Multi-Criteria Analysis of Market and Policy Instruments: Brief Step-by-Step Guide[1]

By CREA (Consiglio per la ricerca in agricoltura e l'analisi dell'economia agraria), with WWF-Romania│2021

Purpose. Co-construction and co-assessment of market and policy instruments (MPIs) through a multi-criteria analysis (MCA), with the overall objective of improving existing policy frameworks.

What is a Multi-Criteria Analysis (MCA)

The Multi-Criteria Analysis (MCA) is a sound methodology to provide a choice, ranking, classification, and sorting of a set of MPIs, based on explicit objectives and a set of decision criteria. This allows reaching a synthetic judgment, especially when the criteria cannot be expressed in monetary terms, such as the effectiveness, efficiency and coherence of MPIs. MCA has been extensively applied to the evaluation of MPIs in agricultural/environmental fields, being able to capture the distributional impacts of MPIs (e.g. on different stakeholders, territorial levels) and the trade-offs between the criteria, and facilitating stakeholders' involvement in the decision-making process. Stakeholder involvement is especially important in the agricultural/environmental area, where conflicts exist between economically interested actors and actors that depend on agriculture/the environment for a living. Granting stakeholders more influence on the decisions about MPIs can provide a better understanding of the preferences of/impacts on local actors, thereby improving the quality of the decisions.

MCA is widely applied by national governments and international institutions and many officially released guidelines and ready-to-use tools exist. Here, the MCA builds on two key official documents, i.e. EC (2017) and UK-DCLG (2009).

The target of the MCA assessment can be new MPIs which are being evaluated based on predictions of their functionality in a given socio-economic context (e.g. changes in the design of existing instruments or newly developed MPIs to bridge identified gaps/respond to certain issues in the policy and/or market framework) – this is an ex-ante assessment (as used in the UNISECO project), or existing MPIs – this would be a participatory check up on how they are performing, to have a basis for future policy decisions.

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[1] This short guideline is to be used together with the "Multi-criteria Assessment matrix" (Excel table) provided separately. If you have any questions about this tool, please contact the author(s) by e-mail: Andrea Povellato (CREA) - andrea.povellato@crea.gov.it.

Project background. In UNISECO, the application of this tool developed an ex-ante impact assessment for improving the knowledge about a list of proposed MPIs to remove the barriers to the adoption of key agro-ecological practices (AEPs) and to the necessary changes in the governance dimension of the farming systems in the 15 case study countries. This allowed us to understand: (1) the expected performance and relevance of the MPIs, including their strengths and weaknesses, with respect to the AE transition strategy; (2) the synergies and conflicts among MPIs, the most innovative MPIs and the trajectories in public and private decision making to support the AE transition.

Step-by-step guide to applying the methodology.

1. Preparation phase

Define your evaluation problem: this is a description of the issue(s) you identified in the market and/or policy framework and the envisaged changes needed to arrive to a better framework and impact on the ground; changes can be in a practice-related dimension and/or in the governance dimension. The evaluation problem introduces and motivates the selection of MPIs. This part is essential to make the MPI assessment as accurate as possible.

Prepare a list of MPIs that will be assessed via the MCA. As mentioned above, these MPIs can be instruments built (ideally in a trans-disciplinary and multi-actor setting) on purpose to resolve certain issues in the policy and/or market framework or to fill gaps – in this case these MPIs are regarded as "innovative" (and they include changes in existing MPIs, e.g. in the eligibility/enforcement/ incentive rules), or they can be existing MPIs which you think need to be checked if they are still "fit for purpose".

Identify and engage with key stakeholders from your socio-economic and policy-related context, who are relevant for your evaluation problem and the MPIs, to carry out the assessment.

2. Assessment phase

Our proposed MCA is a mixed methods approach, integrating quantitative information about the performance and relevance of the MPIs, with qualitative information about their interactions (synergies and conflicts) and the applicability of the most innovative ones. The engagement can be carried out either through a workshop or interviews, or a combination of the two, and either online or face-to-face, depending on your circumstances and the profile of the stakeholders. **The flow of the assessment is as follows:**

→ **Introduction to the evaluation problem.** (est. time 20 min) Here, you should briefly introduce the evaluation problem and the changes required to address the problem, including the MPIs. The description of the MPIs must be functional to the implementation of the envisaged changes.

→ **Description of the assessment criteria** (est. time 20 min) with respect to which stakeholders will be asked to score the MPIs. The performance and relevance assessment aims to highlight best,

worst and critical MPIs, with respect to the criteria and will be complemented by the qualitative analysis that will follow next.

Set of assessment criteria for the MCA

	Criteria	Description
Performance	**Effectiveness**	The extent to which the direct results of interventions contribute to the removal of specific barriers that hinder the achievement of the envisaged changes.
	Undesired side-effects	The extent to which undesired side-effects of the MPI (e.g. tightening of barriers) balance the desired effects directly promoted by the instrument (removal of barriers). MPIs may fail to produce expected results, or worse, set off unintended consequences which further exacerbate the problems faced in practice.
	Targeting	The extent to which the actors who can address the barriers are the target of the instrument.
	Efficiency	The extent to which the instrument is considered less costly/more beneficial compared with alternative options on the removal of issues/barriers. Efficiency considers the relationship between the resources used by an intervention and the changes generated by the intervention. Could other options achieve the same benefits at less cost or greater benefits at the same cost?
	Feasibility	Existence of conditions (e.g. technical capacity, economic strength, socio-cultural acceptance, potential conflicts with current legal settings) required to implement and enforce the MPI by the Regulator (i.e. public body/private actor in charge).
Relevance	**Urgency and priority**	The extent to which the MPI is considered important for the strategy. Specifically, *urgency* refers to the timeliness (whether the instrument should be implemented first) and *priority* - to the relative importance of the instrument in supporting the strategy (whether the instrument is essential).

→ **Filling in the assessment matrix.** (est. time 20 min) The assessment matrix (Excel table) is provided as an attachment to this guide and contains practical instructions. This step is carried out by each participant individually. The MPIs are the object of evaluation. Participants should enter the scores into a copy of the Excel worksheet and you would then insert the scores from all the participants' worksheets into a single master file, once the engagement is over. Stakeholder evaluation of the performance and relevance of each MPI is recorded via the elicitation of scores, to judge the ability of each MPI to remove the issue(s). Three elements contribute to defining the synthetic score attributed to an MPI - criteria weights, performance/relevance score of MPIs on criteria, level of confidence with the MPIs:

- *Criteria weights* allow stakeholders to weigh the relative importance of the assessment criteria. Participants are invited to distribute a fixed total of 100 points across the 5 criteria for the performance dimension.
- *Performance & relevance* score of MPIs allows stakeholders to judge the extent to which a criterion is satisfied by each MPI. Participants are asked to score the performance of each MPI and its relevance on a scale from "0. Very weak – the MPI performs very bad on this assessment criterion" to "5. Very strong – the MPI performs very well on this assessment criterion".
- *The level of confidence* allows stakeholders to give their evaluation on their competence/knowledge/familiarity with each MPI. Each respondent is asked to provide an indication about his level of "confidence" on a scale from "1. I know very little about this MPI" to "4. I'm very familiar with this MPI".

  For each stakeholder, the synthetic score of each MPI is obtained by summing up the product of criteria weights and performances/relevance scores for all the assessment criteria.

→ **Open discussion.** (est. time 20 min) Having filled the assessment matrix, stakeholders will be asked to answer 4 open ended questions (below) that will enable you to develop a richer understanding of their choices and to avoid/correct any research bias or misunderstanding.

<table>
<tr><td></td><td>**Questions**</td></tr>
<tr><td rowspan="2">**MPIs**</td><td>**Q1 – Can you briefly indicate what are the main strengthens and weaknesses of the set of the MPIs that you have just assessed?** *This question aims at receiving a general feedback on the MPIs assessed though the MCA, in order to allow the experts to identify the key aspects of the scoring exercise that he/she has just carried out.*</td></tr>
<tr><td>**Q2 – Looking at the list of MPIs, can you identify possible synergies and conflicts amongst the instruments in addressing the issue(s) and the reasons they may occur?** *This question aims at receiving some feedbacks on the synergies and conflicts amongst MPIs and on the coherence of the MPIs. Encourage participants to provide practical examples.*</td></tr>
<tr><td rowspan="2">**Innovative MPIs, and policy and governance changes**</td><td>**Q3 - Looking at the list of MPIs, can you briefly indicate what in your view are the most innovative MPIs and what are the key challenges for their implementation?** *This question aims at identifying the MPIs that show the greatest potential to address the issue(s), as well as new processes, tools and practices that should be adopted to better support the strategy.*</td></tr>
<tr><td>**Q4 - What are the key needs - in terms of knowledge, advice, resources (financial, infrastructures), governance (social capital, role, power, relations of some actors), or in the local/national policies - to effectively implement the most innovative MPIs? Would they require changes in any of these dimensions?** *This question aims at exploring key changes needed to effectively implement the most innovative MPIs, including the role of key actors.*</td></tr>
</table>

→ **Sum up and concluding remarks.** (est. time 10 min)

Additional information:

Galioto, F., Gava, Oriana, Povellato, A. and Vanni, F. (2021). Innovative market and policy instruments to promote the agro-ecological transition strategies. Deliverable D5.4. Understanding and Improving the Sustainability of Agro-ecological Farming Systems in the EU (UNISECO)

Galioto, F., Gava, O., Povellato, A., Vanni, F., Schwarz, G. (2020) Guideline on the co-construction of innovative market and policy incentives and formulation of policy recommendations.

EC (2017). Better Regulation Toolbox, SWD(2017)350. European Commission, Bruxelles

3 UK-DCLG (2009). Multi-Criteria Analysis: A Manual. UK Department for Communities and Local Development, London