Packing carrots to be sold in the Kigali market (Photo: Assumpta Uzamukunda)

Rapid Sector Assessment:
an adaptive tool for managing agricultural sectors

Over the first half of 2020, COVID-19 spread across the globe. Deeply concerned by its effect on people's health and lives, and its disruption to the economy and society in general, Wageningen Centre for Development Innovation (WCDI), in coalition with partners, designed a participatory method involving local stakeholders to rapidly assess the impacts of the pandemic on agricultural sectors in low- to middle-income countries (LMICs), and to recommend immediate actions to curb negative impacts.

In doing so, systemic bottlenecks were exposed, and varying degrees of resilience to shocks came to the fore. Prompted by these more systemic (and long-term) insights, we explored how rapid sector assessments can contribute to managing these sectors adaptively. Below, we reflect on the use of the tool, the type of evidence gathered after many iterations, and, beyond its application in the context of COVID-19, opportunities for future applications and purposes.

Purpose of the rapid sector assessment tool

The rapid sector assessment (RSA) tool was designed primarily to rapidly assess the impact of shocks on agricultural sectors. The tool reveals what impacts are most pressing, creates awareness, brings stakeholders together to identify and prioritize actions, provides validated evidence to guide these actions, and advocates for policy measures to respond to the shocks. In 2022, WCDI published a collection of rapid assessments in response to COVID-19.

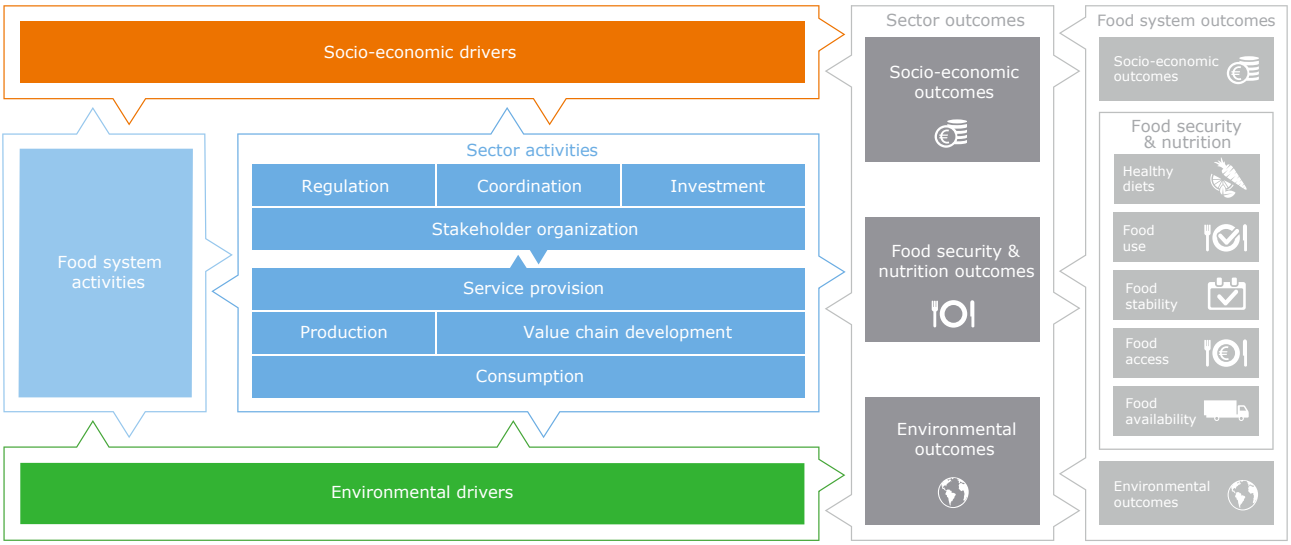
The guiding principles of the RSA tool are:

- **Rapidity** - reflecting the sense of urgency in the assessment, leading to informed decisions
- **Remote application** - facilitating independence from logistical or infrastructural barriers and limitations
- **Flexibility** - adapting to a diversity of agricultural sectors and local contexts
- **Inclusiveness** - ensuring the inclusion of vulnerable groups
- **Reliability** - collecting multiple perspectives and performing triangulation
- **Relevance** - aligning the purpose of the tool to local stakeholders'

In addition to its initial purpose, the tool can be used for general assessments of the functioning or performance of agricultural sectors. The assessment can identify sector strengths as well as weaknesses. In addition, it can be used to draw out the threats and opportunities facing a sector. Lastly, the tool can also be used to monitor and evaluate the process and progress of sector transformation over a certain period, and measure the impact made by the implementation of prioritized actions, by performing the assessment reiteratively. The three applications of the tool are further elaborated below (see 'Applications of the RSA tool').

The RSA tool helps to understand how agricultural sectors contribute to food system outcomes based on the integrated sector and food system framework (Borman et al., 2022; Figure 1). The framework generates insights into the contributions of different activities and drivers, their synergies, and trade-offs to food security and nutrition, and socio-economic and environmental outcomes at sector and food system level (Borman et al., 2022).

Figure 1. Integrated food system and sector framework [1]



How the RSA tool works

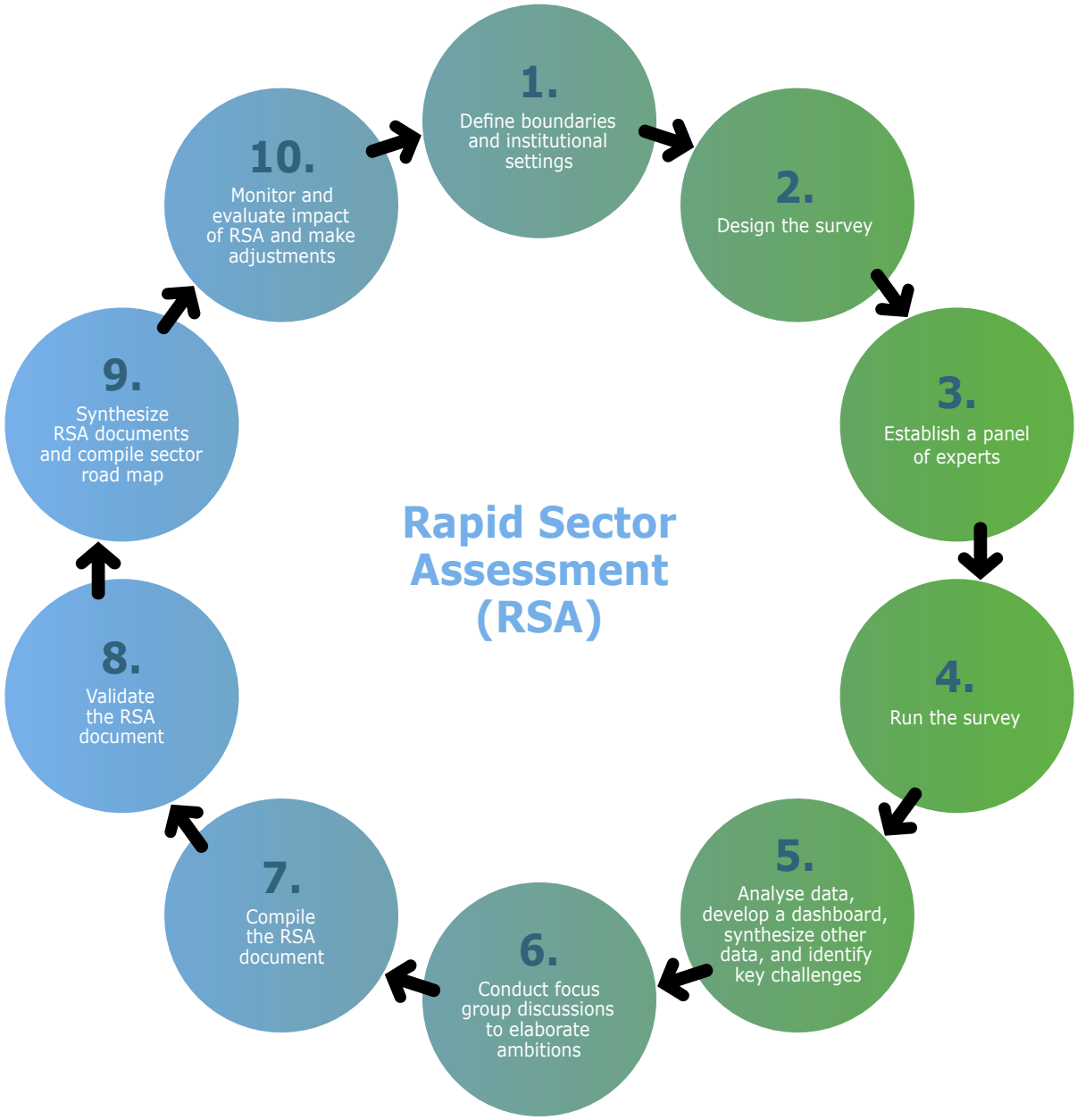
The RSA tool consists of ten steps (Figure 2, next page) that have evolved over various applications.[2] The first, important step is to define the boundaries based on the integrated sector and food system framework (Figure 1). The framework shows eight sector activities and the socio-economic and environmental drivers that determine the sector and food system outcomes. Defining the boundaries of the assessment, and which activities or drivers to focus on, can differ per situation - be it sector-wide or focused on sub-sector activities or specific value chains, or at regional, national or project level, all with their respective institutions involved. Users may choose to limit their assessment to activities that are seasonal or most relevant to the underlying motives (e.g., shock, general sector performance or progress monitoring and evaluation) at a given moment in time.

Steps two to five (Figure 2, next page) cover the design of the survey on issues related to the selected - and interconnected - activities and drivers of the sector, and analysis of the results. Surveying relies on establishing a multidisciplinary panel of at least twenty key experts familiar with the context and requires a minimum of four representatives per type of expert group. Expert groups include amongst others government, civil society, science and industry, as well as farmers and producer organizations, service providers, traders, and consumers, in both the formal and informal economies. Stakeholder groups answer different sets of questions based on their expertise. The weighted average score per question is calculated for each stakeholder group, which allows for in-depth comparison and analysis of contradictory views or conflicting interests. The average of the stakeholder groups concerned is then calculated by giving an equal weight to each weighted average score per stakeholder group, regardless of the number of respondents. The results are presented in a dashboard by question or topic.

The results of the survey are used as input for focus group discussions (FGDs) in step six, where local stakeholders discuss in more depth the underlying issues and drivers based on narrative topics selected from the results, and define and assign actions and responsibilities, or a long-term vision, for the sector. In steps seven and eight, results are summarized in a document that is validated and published to inform stakeholders and decision makers about where support is needed to mitigate risks, or how to benefit from opportunities and work towards desired sector and food system outcomes. Step nine depends on the purpose of the application of the RSA tool, including any type of follow-up, such as (stakeholder) meetings, lobby and advocacy efforts, or the synthesis and development of a sector road map. The final step is monitoring and evaluating the impact of the RSA. The arrow between step ten and step one presents the re-adjustments required for the next application based on the lessons learned.

1] Borman, G., De Boef, W.S., Dirks, F., Saavedra Gonzalez, Y., Subedi, A., Thijssen, M.H., Jacobs, J., Schrader, T., Boyd, S., Ten Hove, H.J., Van der Maden, E., Koomen, I., Assibey-Yeboah, S., Moussa, C., Uzamukunda, A., Daburon, A., Ndambi, A., Van Vugt, S., Guijt, J., Kessler, J.J., Molenaar, J.W. and Van Berkum, S. 2022. Putting food systems thinking into practice: Integrating agricultural sectors into a multi-level analytical framework. Global Food Security 32, 100591. https://doi.org/10.1016/j.gfs.2021.100591. 2] Rapid assessments methodology. Wageningen Centre for Development Innovation, 12 May 2020. Rapid assessments: methodology - WUR.

Figure 2: Overview of the rapid sector assessment steps



Applications of the RSA tool

Rapid sector assessments have been and can be applied to various purposes and in different ways, including:

1 **To assess the impact of shocks (i.e., COVID-19)**

To identify the impact of the COVID-19 crisis, RSAs were conducted for the following agricultural sectors: seed, sesame, potato, fertilizer, horticulture, dairy, cotton, floriculture, and fisheries. They were conducted at country level and in collaboration with international and national partners. The surveys were tailored to specific seasonal and geographic contexts and measured the frequency of perceptions on the impact of COVID-19, captured on a five-point Likert scale, with scores ranging from 'highly negatively impacted' at one end, through 'not significantly impacted' to 'highly positively impacted' at the other end (Borman et al, 2021). Participants of the FGDs verified the challenges and identified remedial and preventative actions and stakeholders responsible to initiate and drive actions. The outcomes of the survey and FGDs were shared in an alert document, mainly focusing on the impacts at sector level (Borman et al., 2021).

In some cases (seed, sesame), several iterations of the rapid sector assessments took place to address the changing dynamics while the COVID-19 crisis evolved. Also, the distinction between short- and long-term impacts was made in RSAs that were conducted more than one year after the start of the pandemic (dairy, cotton, floriculture, and fisheries).

Seed inspectors on a cassava seed field (Photo:NASC)

Finally, a synthesis of the results and lessons learned was applied to RSAs of the seed sector in particular, which were conducted in a number of countries (De Boef et al., 2021).[3]

Thus, in this application, the RSA tool provides input to stakeholders by identifying where action is needed, which is especially important in terms of shock, when there is chaos and urgent action is pursued.

2 To assess value chain and/or sector performance

In the next iteration, the RSA tool identified systemic bottlenecks that impeded sector development and guided informed (sector-wide) decision-making and adaptive management. In these cases (tomato in Nigeria, and Soybean in Uganda), the main modification of the tool included the formulation of explorative questions about how key stakeholders rate the performance of the sector. Respondents were given a five-point Likert scale, with scores ranging from 'very good' at one end to 'very poor' at the other end. Results of both the survey and FGDs, and the recommendations that followed, were placed in the larger food system rationale.

The RSA tool provides in this application an overview of sector performance and identifies leverage points for improving sector outcomes and its contribution to food systems. This application can also be relevant for assessing the functioning of sectors under the influence of stressors, e.g., protracted crises.

3 To monitor and evaluate sector transformation

While not yet put in practice, the third application would follow, to a large extent, the approach described in the second application. The main modification would involve the number of iterations. Moreover, it requires an initial iteration or a baseline assessment to compare findings and measure progress. This application also requires the development of an effective dashboard to present the results of reiterative assessments, monitor progress on topics that are being worked on, and identify emerging and new topics to support the dynamic process of transformation.

In all three applications, the steps of the RSA tool are similar, only the focus and content changes according to the specific purpose. Thus, the formulation of questions, the analysis and presentation of the results, and the necessary follow-up activities are adapted to achieve the desired impact.

3] De Boef, W.S., Borman, G., Gupta, A., Subedi, A., Thijssen, M.H., Ayana Aga, A., Hassena Beko, M., Zin Myint Theinc Win Thein, S., Okelola, F., Olusegun, O., Philip Ojo, O., Agbara, C., Otim, G., Ssemwogerere, C., Ntare, B. and Oyee, P. 2021. Rapid assessments of the impact of COVID-19 on the availability of quality seed to farmers: Advocating immediate practical, remedial, and preventative action. Agricultural Systems 188, 103037. https://doi.org/10.1016/j.agsy.2020.103037.

Lessons learned from the RSA tool

The rapid sector assessment tool effectively and efficiently measures the state of affairs and performance of selected sectors and the impact of shocks (i.e., COVID-19) within the context of food systems. The RSA tool is, however, no silver bullet in assessing food system transformation. Those who apply the RSA tool should be transparent and knowledgeable about its assets, limitations, considerations and requirements in its design and application.

Assets

- **Rapidity** - If circumstances demand quick action, the RSA tool can be applied in less than three weeks.
- **Adaptability for flexible and remote application** - The RSA tool offers the possibility for easy adaptation to the local context and a varying number of survey respondents and FGD participants. This ensures it can be applied in multiple sectors and many countries. Translation of the questionnaires into local languages and mixed implementation channels, including remote options (phone or email), further contribute to the high adaptability and accessibility of the tool.
- **Inclusiveness to different voices** - The possibility for diversifying stakeholder groups, ensuring the inclusion and representation of marginalized groups during the survey and FGDs, strengthens the reliability of - and adds nuances to - the findings.
- **Equal representation** - Input from a diverse range of stakeholder groups is valued equally. Equal representation is ensured by giving an equal weight to the weighted average of each stakeholder group in the overall survey results.
- **Stakeholder owned** - Ownership of the RSA tool allows stakeholders to analyse the sector and collectively define solutions or decide upon actions and responsibilities themselves.
- **Low costs** - The tool uses simple and low-cost software (KoBoToolbox, Microsoft Excel and InDesign).

Limitations

- **Needs access to current sector information** - While the tool can easily be adapted by users with limited experience in the sector concerned, the composition of the set of survey questions requires specific knowledge of the sector. Therefore, access to secondary data, such as market trends or rules and regulations, is important, and accurate and timely information needs to be available.
- **May be considered repetitive by stakeholders** - When the RSA tool is implemented multiple times (iterations as part of the approach), users should carefully consider the number of iterations and the time between them, to avoid (survey) fatigue among the participating stakeholders. The iterations should serve a certain purpose.
- **Requires involvement of sector representatives** - With the intention of identifying and agreeing on actions in the FGDs, it is important that stakeholder representatives with decision-making powers participate. The involvement and commitment of various partners across different administrative levels can be challenging and influences the eventual impact of the RSA. A strong institution or mechanism for coordination among stakeholders in the sector is essential to meaningfully inform decision-making and initiate actions through the RSA.

Considerations and requirements

- **Determine implementing partners** -The RSA tool can be implemented by sector bodies, agencies and platforms, project partners and other sector actors that aim to achieve sector transformation through multi-stakeholder collaboration. The following factors play a role in determining the best partner(s) to implement the RSA tool: network, reputation, resources (human, operational and financial means).
- **Promote objective design** - The design process requires careful consideration as to whom to involve and how. Failure to do this may lead to information bias and misinterpretation (and/or misrepresentation). This includes the formulation and selection of questions to be asked. Any questions that are not asked may lead to blind spots or an unfair or incomplete representation of the situation. Equally important is the analysis of the survey responses as it will determine the topics of the FGDs, with the final results summarized in the RSA document.
- **Safeguard reliability** - Ideally, the mobile or web-based survey should take no more than twenty minutes to ensure reliability of the data. The longer the survey, the more it will impact on attention span, accuracy, completeness, and the number of respondents concluding the survey. Results are most reliable when the assessment focuses on the current situation. Respondents can best judge the situation as it is. Thus, the RSA tool provides a snapshot and is less suitable to assess circumstances in the past or for a longer period. The RSA tool does not generate statistically and scientifically substantiated results. It combines a 'light' quantitative assessment with a qualitative description of reality.
- **Be aware of power relations** - The tool builds upon stakeholders' perceptions, both through their responses to the survey as well as during live FGDs. Many stakeholders acknowledged the value of these direct discussions. However, especially during FGDs, one should remain mindful of power relations, social and hierarchical norms and to what extent participants feel free to voice their reality and interests (Borman et al., 2021). Also, the selection of stakeholders is never neutral and to a large extent depends on the network of those conducting the RSA.
- **Maximize impact and relevance** - The RSA intends to inform decision-making rather than deliver change. The participatory RSA tool identifies possible actions for decision makers to take and the ultimate impact depends on multi-stakeholder collaboration and commitment. Aligning the purpose and focus of the assessment to stakeholder priorities and significant circumstances increases its relevance.

Opportunities for the future use of the RSA tool

The RSA tool shows great potential for additional purposes to analyse value chains, sub-sectors or sectors through the specific lens of social inclusion, climate change or particular food system outcomes. In order to adapt and use the tool for such purposes, the focus needs to be embedded in the process and specific steps, e.g., with an inclusion lens, the focus will be on enabling different voices, particularly of more vulnerable stakeholders, while an environment lens ensures contributions from experts on natural resources and ecology.

Another opportunity is applying the RSA tool in multiple sectors, followed by the aggregation of multiple sectors in a food system. When different sectors within a food system meet, synergies, trade-offs and complementarities emerge, and lead to aggregated impact.

Moreover, the results of the RSAs can inform the **design or monitor the implementation of a strategic plan, roadmap, programme or intervention**. The tool could well provide a framework for measuring performance on a continuous basis and over a longer period (e.g., dynamic dashboard) and as such be instrumental for monitoring, evaluation and learning (MEL) trajectories. Ultimately, as a result of the road map and MEL that may follow, the tool can help to track progress towards the desired sector-level and food system-level outcomes, in an adaptive manner.

Different applications affect process design; however, while flexible, we do encourage users to apply the same integrated sector and food system framework (Figure 1) when tailoring and applying the tool to their specific needs. Using a common framework across countries, sectors, activities, and observations allows for wider interpretation and synthesis[4], especially when measuring performance over a longer period.

4] WCDI & SNV, 2021. Rapid assessments of the impact of COVID-19 on agricultural sectors and food systems in Africa. Synthesis. Wageningen Centre for Development Innovation, Wageningen & SNV, The Hague.

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