



FARM-LEVEL AGROECOLOGY CRITERIA TOOL USER GUIDE

The Farm Level Agroecology Criteria Tool (F-ACT) is a digital decision-making tool that enables farmers to identify ways for making their farms more efficient, resilient, equitable, and ultimately agroecological. This document highlights the utility and limitations of F-ACT and provides guidance for using F-ACT.

What does F-ACT do?

F-ACT provides a holistic farm assessment to identify activities and behaviours that support agroecological development and areas for further development relative to a farm's unique context and objectives.

The tool guides users through a series of questions to identify to what extent each of the thirteen principles of agroecology (HLPE 2019) are reflected through activities related to relevant components of farm and food systems. Each question has four predetermined answers graded from 0 to 3 to describe relative areas for improvement and strengths. The tool assesses the areas of agroecological transition where farmers have agency, including farm-management decisions and how farms engage with agroecological transition at the landscape, society, market, and policy levels.

F-ACT generates automatic bar charts from the results that provide qualitative indicators of a farm's strengths and areas for further agroecological development. These indicators are then discussed within the context of the farm's goals and challenges.

How is F-ACT intended to be used?

F-ACT is designed for participatory on-farm assessments facilitated by external facilitators (e.g. extension providers, NGOs etc.), or farmer-led assessments where literacy levels and access to technology enables such an approach. In both cases F-ACT is intended to support and complement existing local knowledge rather than substitute it. Furthermore, it is intended as a reflective tool that supports and enables farmers rather than imposing specific practices and decisions.

The results generated by F-ACT in this context can be used to:

- Highlight agroecological strengths and areas for development.
- Stimulate discussion of farm objectives and challenges.
- Create practical action plans to achieve objectives.
- Set benchmarks and monitor progress through future assessments.

Additionally, results from F-ACT can be used by agricultural development stakeholders to:

- Identify agroecological extension needs based on common challenges.



- Monitor adoption of agroecological practices or behaviours after training.
- Produce narrative case studies to promote agroecological farming and food systems within communities and as a tool for advocacy and policy.





What assumptions have been used in the design of F-ACT?

The questions contained within F-ACT have predetermined answers established on a gradient of 0-3 to describe areas for development (0-1) and areas of strength (2-3). However, in some cases, an “n/a” response is provided to avoid assessing a farm on areas which are not relevant to their agroecosystem. Certain assumptions underpin why particular criteria include such response options while others do not:

1. Criteria related to livestock include an “n/a” option as it is possible to operate agroecological agroecosystems without livestock inputs (e.g. stock-free organic farming, or urban market gardens) and hence livestock may not be appropriate or necessary. A further assumption here is that for an agroecosystem containing livestock to be considered agroecological it must also contain plants (either crops or pasture) and hence questions pertaining to plants do not feature an “n/a” response. However, one criterion related to perennial alternatives to annual crops is excluded from this rule. The reason for this was that the current availability of perennial alternatives to annual crops, particularly in East Africa, was considered too limited to be included as a required criterion.
2. Criteria related to trees are not provided with an “n/a” response as it is assumed that if land is being used to grow crops it is likely possible to also grow trees.
3. Finally, criteria related to farmers’ organisations, workers, or marketing strategies allow for “n/a” responses to reflect situations in which these are not relevant for a farm.

What are the limitations of F-ACT?

F-ACT does not measure outcomes related to farm performance or resilience. It is therefore not suitable for assessing the impact of interventions, nor for comparing farms for the purpose of creating agroecological rankings.

F-ACT is prone to self-reporting bias. Efforts should therefore be made to create a trusting and open dialogue with farmers to help them get an accurate assessment of their farm to create useful action plans. For example, field testing of this tool found this particularly important for questions on agrichemical use and gender equality which were vulnerable to social desirability bias.

While efforts have been made to create a tool that is holistic in structure and content, the results generated by F-ACT are a necessary simplification of reality. The HLPE agroecological principles



Can F-ACT be adapted for different needs?

F-ACT is available as an open-source excel file and hence alterations and evolutions of the tool are welcome. Biovision is interested to gain feedback and hear from stakeholder experience in using and adapting the tool.

As F-ACT was co-developed with smallholder farmers in Kenya, some users may wish to adapt the content of the criteria to fit different cultural or climatic contexts. To do this, edit the relevant cells in the 'Data Lists' sheet.

F-ACT has potential for use as a community tool for collective assessments of farming communities, local markets, or landscapes. This application is yet to be tested but Biovision welcome efforts to utilize the tool in this way.

have been linked to relevant components of the farming system. However, many agroecological practices relate to multiple principles and components. For example, mulching can improve soil health, reduce water losses, reduce herbicide requirements, and recycle on-farm materials. Efforts have been made to encapsulate these multidimensional practices, but it is possible that others could be included in future versions of F-ACT.

Guidance for facilitating with F-ACT

Before starting the F-ACT process make sure you have read through each stage of the tool and have familiarised yourself with the various questions and responses for each criterion.

F-ACT has been designed and tested as a digital tool and requires a tablet or laptop with excel to be used in the field. This method allows quick data entry and automatic visual results which would not be possible in a printed format.

A dialogue or conversational approach is recommended when facilitating the F-ACT process with farmers. Therefore, facilitators should expect to engage in discussion rather than simply recording answers to questions.

F-ACT is made of three parts: Assess, Contextualise, Inspire. The process is intended to be completed during a farm walk and should take between 1-2 hours depending on farm size, confidence with the tool, and level of discussion. Each part is described here with steps for facilitators to follow, however the same steps can be followed if you are conducting your own farm assessment.

Assess

Given the structure of the tool, the assessment process is not linear. This means that questions related to specific principles or parts of the farm can be asked as and when they are encountered during the farm visit, either physically or in discussion. Allow time to make sure you can answer any remaining questions left unanswered toward the end of the farm walk.

1. Explain the purpose of F-ACT and that the assessment is designed to help the farmer recognise strengths and potential areas for development. Emphasize that accurate answers will enable the most useful action results.
2. Begin the farm walk and discussion, prompting the farmer(s) with a question from the 'Assess' sheet if needed.



References

HLPE (2019). Agroecological and other innovative approaches for sustainable agriculture and food systems that enhance food security and nutrition. A report by the High-Level Panel of Experts on Food Security and Nutrition of the Committee on World Food Security, Rome.

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3. Input responses to questions as they are answered by selecting from the drop-down list of responses (0-3 or n/a). Select the most appropriate response based on the farmer's answer.
4. Ensure all questions are answered, even if the response is 'n/a'.

Tip: if possible, have somebody take photos during the farm walk to capture images for any written action plans or case studies you might develop.

Contextualise

1. Ask the farmer(s) about their goals and challenges and enter responses in the 'Contextualise' sheet.
2. Return to the 'Assess' sheet and allow the farmer to view the matrix.
3. Explain that the number of green cells indicates the strengths of the farm and that the yellow cells highlight areas for development to achieve their goals and overcome their challenges.
4. Explain that the results reflect their unique context rather than a ranking compared to others.

Inspire

1. Open the 'Inspire' sheet and go through the first bar graph to explain which agroecological principles their farm is most engaged with, and where there is room for improvement.
2. Go through the second bar graph in the same manner, this time discussing which parts of the farm and food system are being engaged with in the most agroecological way.
3. Revisit the farmer's goals and challenges (in the 'Contextualize' sheet) and ask if the results provide ideas for how they might develop their farm further.
4. Provide your own suggestions in relation to their goals and challenges.
5. An action plan can be developed on site, written either by the farmer(s) or whoever is facilitating the assessment. Alternatively, you may wish to take the results away with you to write up a formal action plan to share with the farmer.

