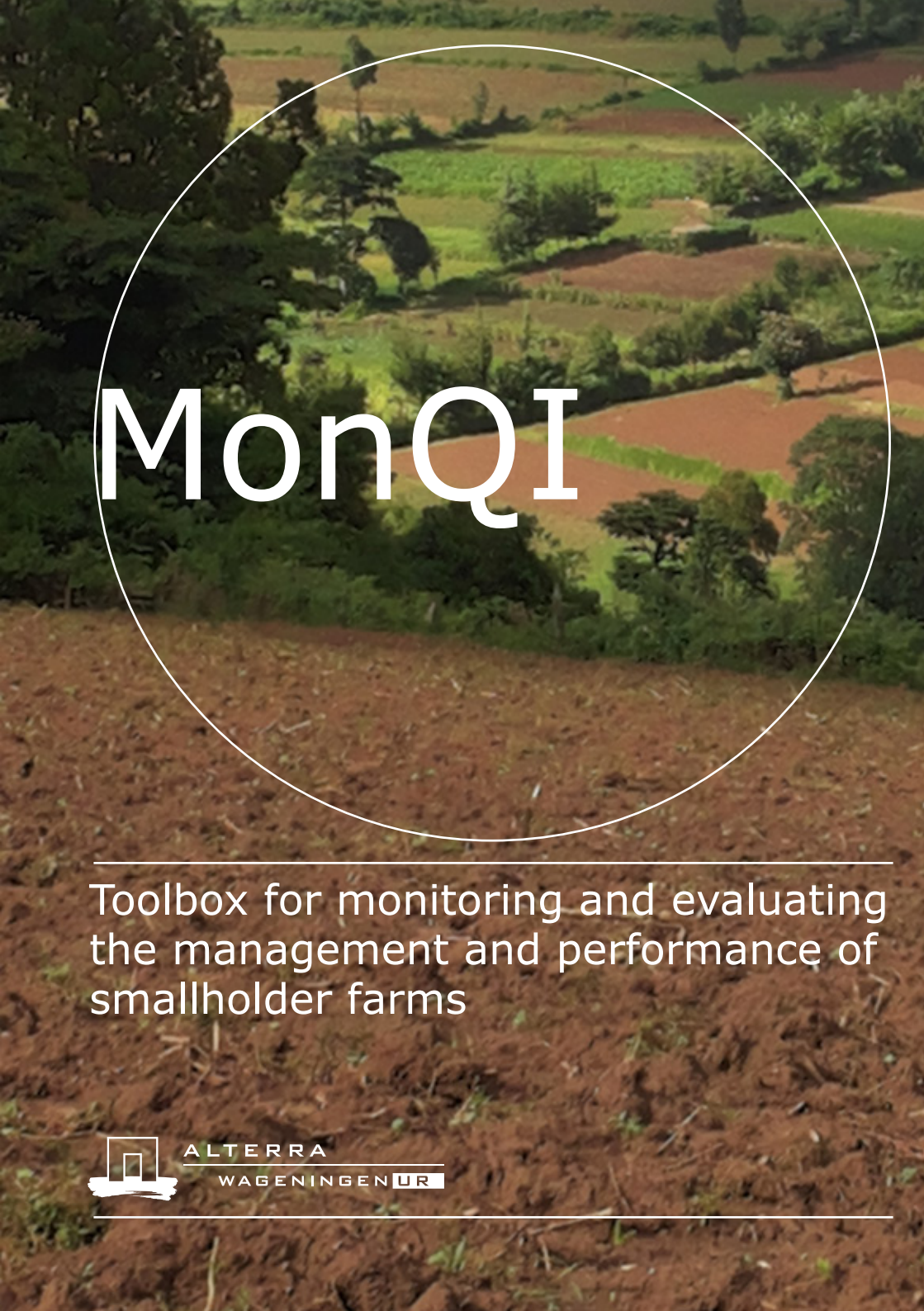


MonQI

Toolbox for monitoring and evaluating the management and performance of smallholder farms

ALTERRA
WAGENINGEN UR

Although Integrated Soil Fertility is on the map for decades, the real implementation at farm level does not take off, with associated consequences of soil nutrient mining and insecure agricultural production. A different approach is therefore needed to monitor and evaluate current land use at farm level. We present here the M&E-tool MonQI that can provide insights in the various determining processes.

MonQI is a toolbox for monitoring and evaluating the management and performance of smallholder farms. It offers the systematic collection of field data, data processing software, and customized feed-back sessions. MonQI is designed for, but not limited to, application in developing countries and provides a wealth of information on socio-economic and agro-environmental farm performance. Cooperations, NGO's and agricultural service organisations in developing countries successfully use MonQi to increase their efficiency and quality of service.

MonQI can be used for a wide range of objectives, including identification of weaknesses in farming practices, monitoring of impacts of interventions, comparison of farming strategies, joint learning, and certification of quality products. MonQI has proved to motivate farmers to think and work more quantitatively and improve their farm management and performance. Therefore, MonQI can be instrumental for transitions towards sustainable farm systems and entrepreneurship.

Steps & Modules

MonQI offers a five-step procedure, which will takes the user through multiple interactions with stakeholders:

1 Farm data collection with use of local units and habits, supplied by the farmers
2 Data entry
3 Verification and processing of data
4 Analysis and reporting
5 Feedback to farmer

The MonQI toolbox can be adjusted to specific needs of a project and results can be easily transferred to a geographical information system.

Examples of farm indicators generated by MonQI

Environmental	Soil nutrient balances, pesticide use
Agronomic	Fertilizer profitability, crop and livestock productivity, organic matter management, carbon and water flows

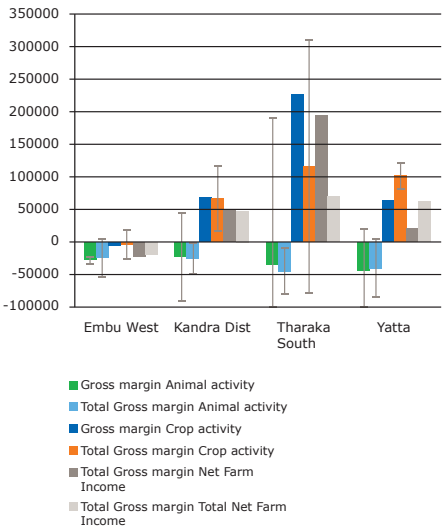
Over 20 years experience

MonQI is jointly developed and managed by Alterra Wageningen UR and Envista Consultancy (ICT for agricultural research). MonQI and its predecessor have been used successfully for more than 20 years in a wide range of farming systems and countries.

Use MonQI to achieve your goals

MonQI is a flexible tool. It can serve a wide range of your purposes involving systematic quantified data on farm management and performance.
The most popular applications include monitoring and evaluation schemes, joint learning activities, identification of areas for improvement, and impact assessment.

This graph shows the economic profitability for different areas in Kenia.



'Through the use of MonQI we gained better insight into the real effects of farmer's activities both in economic and sustainable terms.'

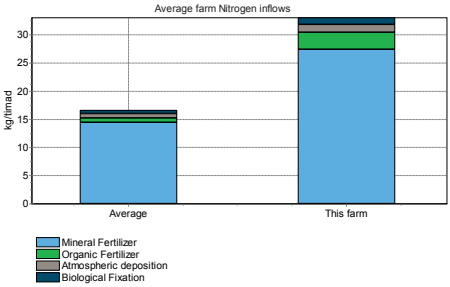
ZOA, NGO for refugees, Burundi

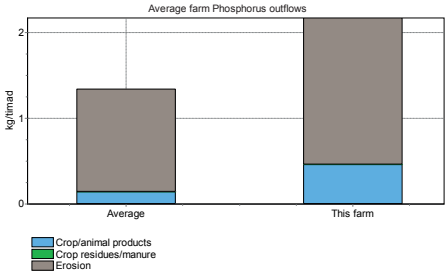
Training for the best results

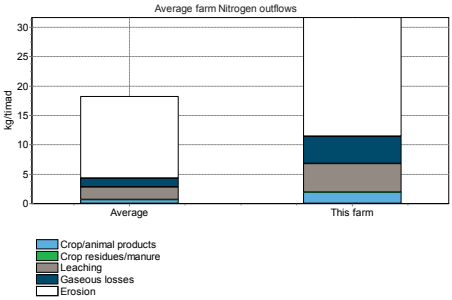
Prior to using MonQI a training with experiential learning is provided. This training is focussed on specific needs and results in a tailor made configuration. It also includes a day with the farmers in their fields and stakeholder feedback reports of the actual situation. In addition, set-up of the monitoring schemes and tailor-made applications of the toolbox will be ensured.

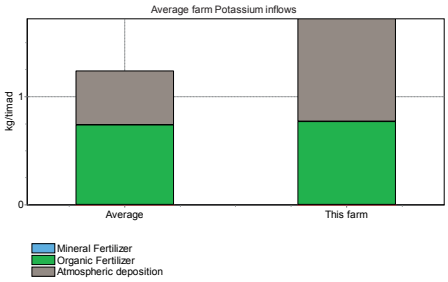
Farm Nutrient Management and Balances

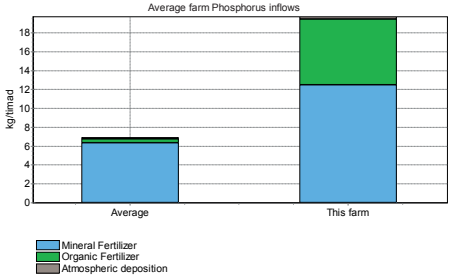
The following graphs illustrate outcomes of MonQI, i.e. (i) in comparing a given farm with the average of a project for N, P and K, and (ii) presenting the N, P and K balances for 26 farms in Burundi (showing that generally speaking a larger number has negative N and K balances and a positive P balance).

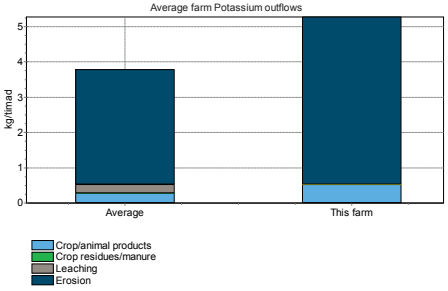












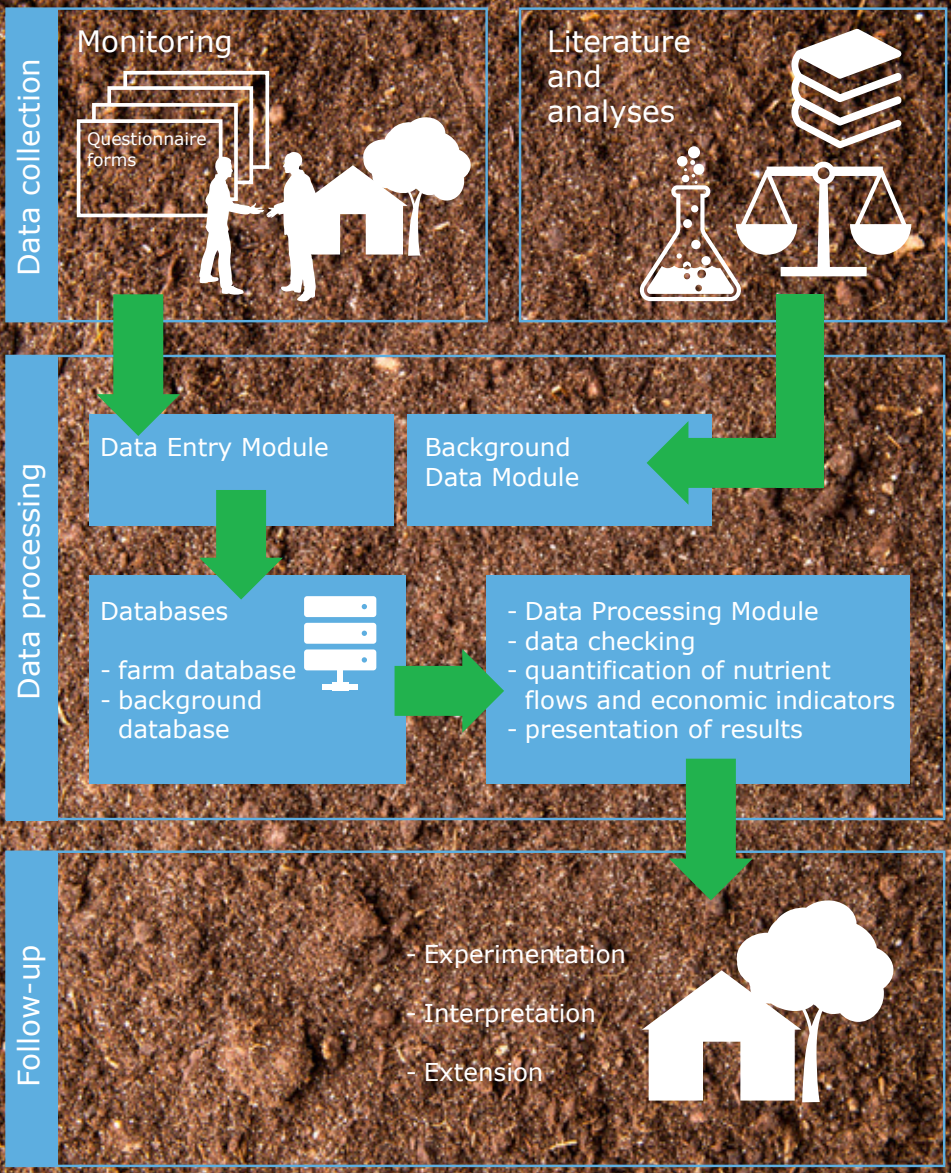


Figure 1 Flow chart of the steps procedure in MonQI.

Additional features & costs

Optionally, MonQI can be extended with:

- MonQI-Studio for visualisation of results (e.g. analysis of trade-offs and food security indicators);
- MonQI_water and MonQI_carbon for water and carbon management (related to climate smart agriculture);
- Links to a fertilizer recommendation tool (QUEFTS) to determine site specific NPK fertilizer recommendations;
- Micro-nutrients balances (in prep.).

The tool is provided free of costs for organizations in developing countries who are collaborating in our projects.
A trial version of MonQI can be down-loaded from our website www.monqi.org.

Contact & more information

For more information, training and support requests, please contact the MonQI development group at info@monqi.org or visit www.monqi.org.

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