



RESTORATION OF DEGRADED LAND FOR FOOD SECURITY AND POVERTY REDUCTION IN EAST AFRICA AND THE SAHEL

Employing a farmer-centered approach in Ethiopia, Kenya, Mali and Niger



Smallholder farming is a critical contributor to global food security but is under major threat from degradation, loss of soil function and fertility and corresponding low agricultural yields. Addressing land degradation requires active engagement of farmers to integrate restorative agricultural practices on their farms. Achieving the targets set out by the United Nations Sustainable Development Goals (SDGs) requires successful restoration efforts to reach large numbers of farmers and hectares over the coming decade.

A key constraint to scaling restoration is that the ecological, economic, sociological and institutional context varies from household to household, as well as from village to village and that no one technology will suit all contexts. What is urgently needed are locally relevant restoration options that will work for different farmers in different places.

MATCHING RESTORATION OPTIONS TO FARMER CONTEXT

Through the project “**Restoration of degraded land for food security and poverty reduction in East Africa and the Sahel: taking successes in land restoration to scale**” a transformational approach was adopted by placing farmers at the centre of land restoration efforts and agricultural research. Farmers in Ethiopia, Kenya, Mali and Niger implemented on-farm

planned comparisons to test and innovate land management practices that restore agricultural productivity and ecosystem health. Radically different to past development approaches, planned comparisons embed research into the development and scaling process, while empowering farmers and pastoralists to restore degraded lands.

WHAT IS A PLANNED COMPARISON?

Planned comparisons are the testing of various options on a farmer’s field. This includes the testing of the variations of the option (i.e., different sized planting basins, manure treatments, etc.). Planned comparisons allow for rigorous assessment of options across different conditions and locations to identify what works where for whom. Planned comparisons allow for understanding the performance of the options at multiple scales, from farmers’ fields and communities, to different agroecological zones.

Each farmer has a different context and specific needs. Restoration approaches and technologies must therefore be adapted for each of the varying contexts. **The planned comparison approach accommodates this and allows farmers to experiment and innovate on their farms, which in addition to increasing farmer learning has also led to scaling of land restoration.** For example, the farmer chooses which options he or she would like to implement and compare on their farm. They are also encouraged to innovate around the option to meet their needs.



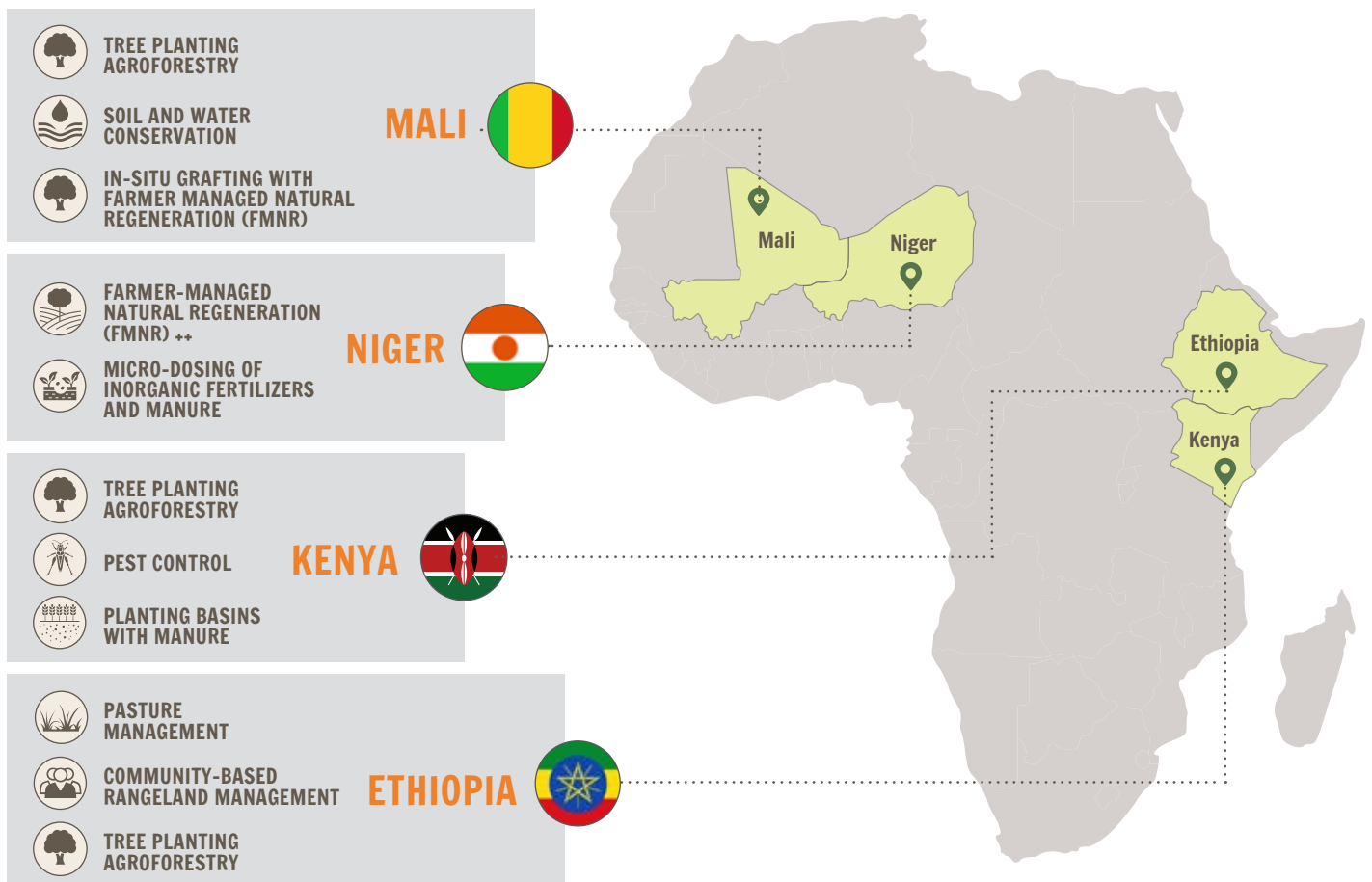
Key aspects of the planned comparison approach

- ✓ High farmer participation
- ✓ Participatory identification of the current challenges facing farmers
- ✓ Participatory identification of an initial set of potentially promising options as well as the current questions remaining about the viability of these options
- ✓ Development of a planned comparison protocol that aims to answer these research and implementation gaps
- ✓ Continual review and refinement of the options and protocols together with farmers to address the locally relevant challenges and contexts
- ✓ Monitoring of the performance of each of the options to produce
- ✓ rigorous evidence on the constraints and conditions for implementation and the variables of success for specific restoration options
- ✓ Aims to scale relevant management/restoration innovations to a large number of farmers by demonstrating the performance and impact of the new innovation in specific contexts
- ✓ Facilitates a 'deep' participatory processes with farmers, as well as partners and additional stakeholders, to encourage co-learning, knowledge sharing and innovation
- ✓ An innovative way to embed research into development, by reaching large numbers of farmers and having high farmer participation

Planned Comparisons in Action

Land restoration options were implemented with over 10,000 farming households in Kenya, Ethiopia, Mali and Niger across social, geographic and economic contexts using on-farm planned comparisons to determine which restoration options (innovations) work where and for whom.

Restoration options tested





LESSONS LEARNED

- Land restoration is key to improving agricultural production and livelihoods
- Implementing planned comparisons empowers the farmers to decide which option to test and encourages farmer innovation
- Participatory identification of the challenges facing farmers ensures relevant and locally appropriate restoration options to be tested
- Regular interactions with farmers and stakeholders from protocol development to training on options and monitoring of performance of options is key to successful implementation and scaling
- Monitoring of the performance of each options produces the evidence base for understanding what works where and for whom
- The research in development approach allows for scaling of context-specific options to large number of households across large areas
- In order to implement the research in development approach, stakeholders need to be open to doing things differently - a shift in behaviour is critical for success
- Communities of practice between and within farmers, NGOs, government and researchers are an effective way to stimulate knowledge sharing both within and between stakeholder groups



VALUE OF THE RESEARCH IN DEVELOPMENT

Large-scale impact requires evidence-based innovations to be widely adopted across multiple contexts. The research in development approach used by ICRAF and partners generate this information, by testing and validating options using a farmer-centered approach to understand what works best where and for whom. This is essentially integrating research design into implementation while providing real-time feedback from and with farmers in order to scale land restoration.



VALUE OF THE PLANNED COMPARISONS

- The planned comparison illustrates the fundamental farmer-centered approach
- Farmers implement the planned comparisons on their farms with technical support, and the farmers experiment and innovate with various land restoration options to see what works best for their context
- These planned comparisons applied in multiple contexts allow for confident targetting and scaling of restoration options

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www.worldagroforestry.org/project/restoration-degraded-land-food-security-and-poverty-reduction-east-africa-and-sahel-taking

