

Introduction

Land degradation is a serious problem globally, particularly in developing countries where governments and people have limited options to tackle or withstand its effects. Sustainable land management (SLM), soil and water conservation (SWC) and water harvesting (WH) measures are urgently needed to tackle its impacts. Since technologies or scientific research alone cannot address the complex issue of land degradation, there is a need to integrate research and development. The USAID-Africa RISING program—coordinated by the International Livestock Research Institute (ILRI) in partnership with CGIAR centres and national partners in Ethiopia—engages in action research to tackle land degradation and improve productivity through restoration, sustainable intensification and diversification. This study seeks to demonstrate the process and modality adopted to guide co-planning, co-implementation and co-monitoring of SLM, SWC and WH options in an integrated and sustainable manner.

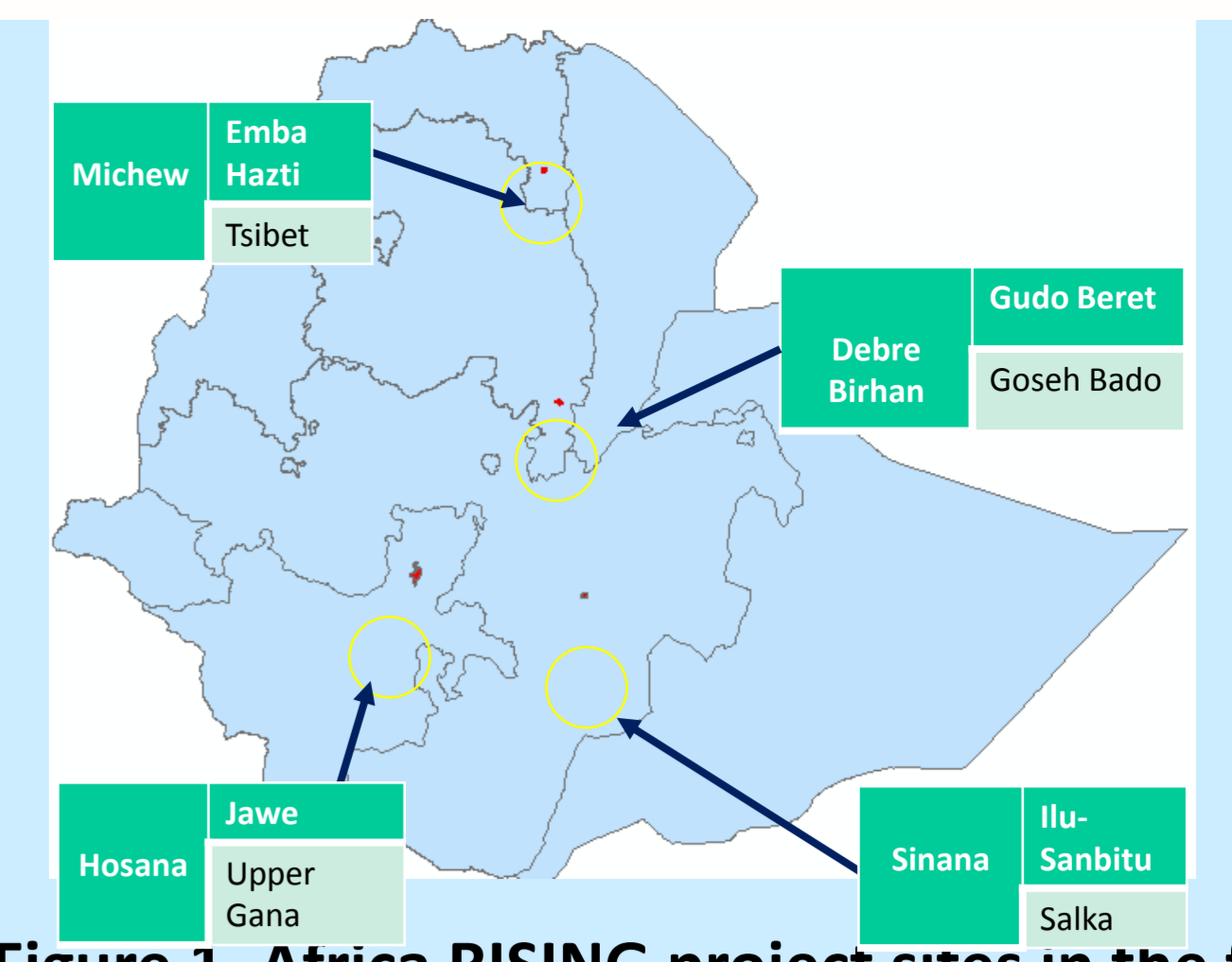


Figure 1. Africa RISING project sites in the four regions of the Ethiopian highlands

Approaches and outputs

1. Co-define the priority issues to be addressed

Co-problem identification and co-design of possible approaches are key to forming strong and sustainable partnerships, as are understanding strengths and identifying clear areas of collaboration and shared contribution.



To prioritize, plan and design suitable management options, identifying the major problems and drivers in the respective study sites is essential. For instance, field visits and participatory approaches identified gully erosion/land slide, water shortage and livestock feed as serious problems facing the Gudo-Beret and Jawe communities (Fig. 1). Participatory problem identification can help identify context-specific “solutions” to the respective problems.

2. Co-identify the observed gaps and opportunities to take appropriate measures

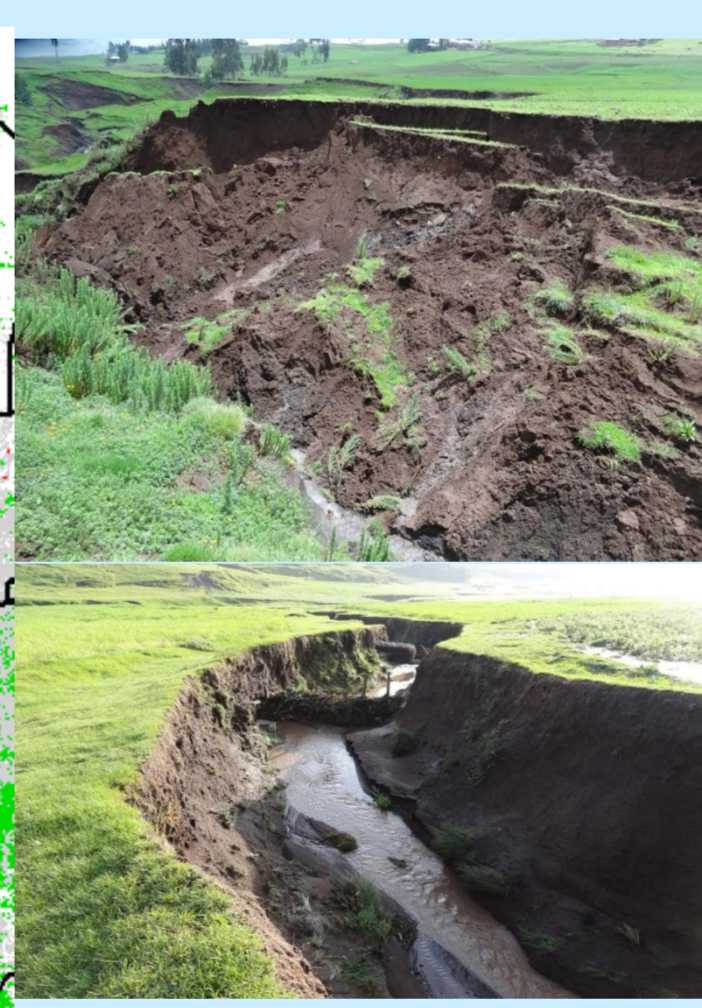
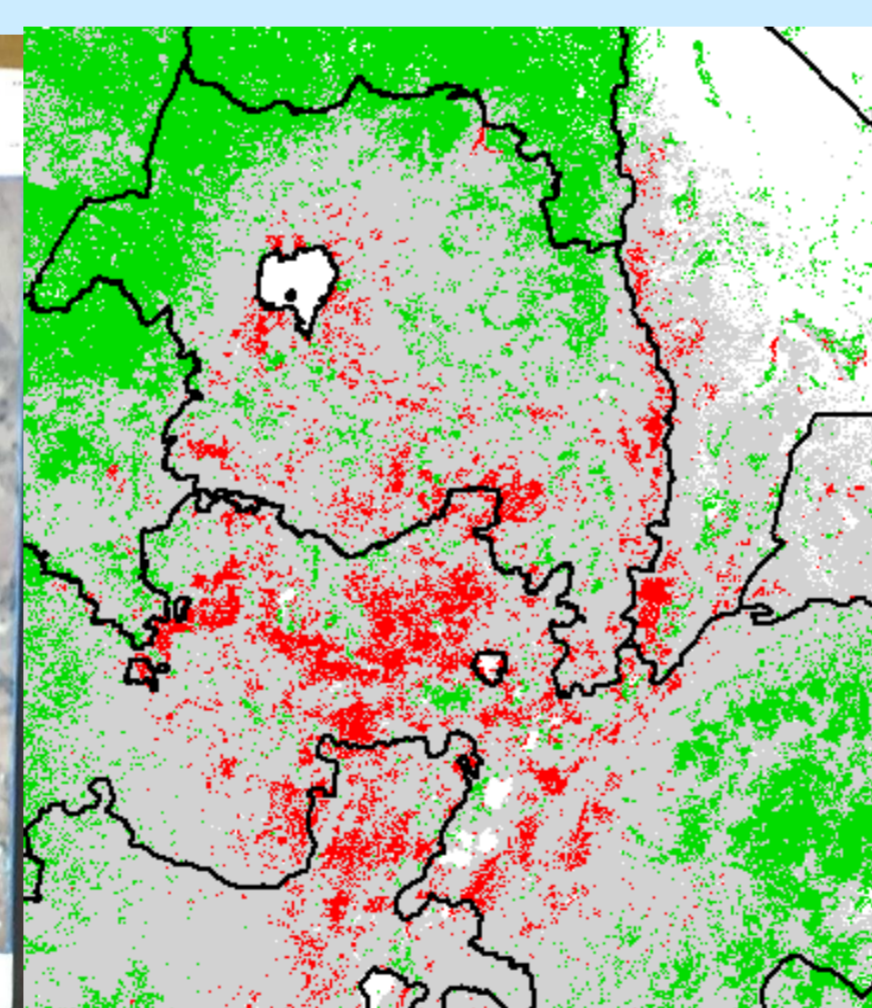
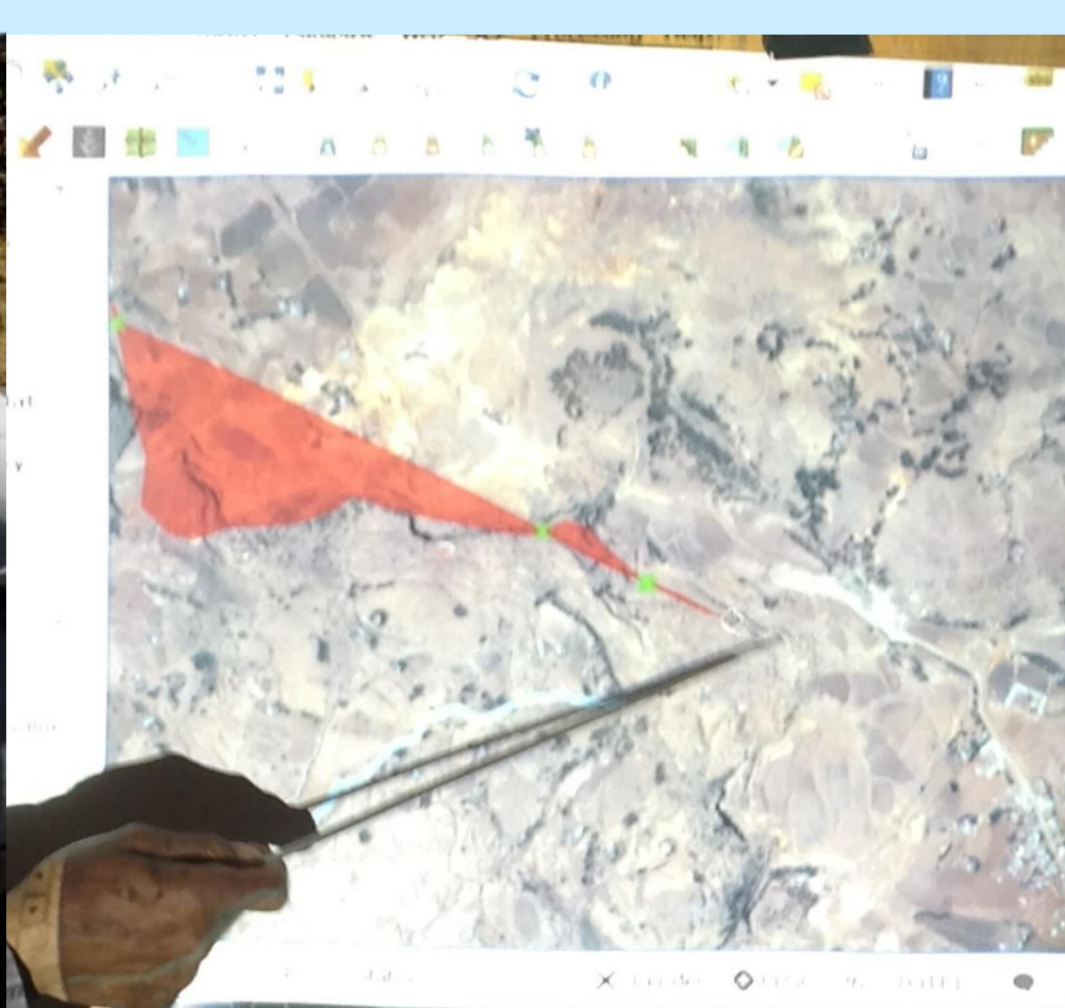
Consultations of the local communities as well as regional and local government representatives can facilitate identifying gaps and niches. Trainings, exchange visits and demonstrations were conducted involving various stakeholders (farmers, administrators, and extension workers) to create awareness and build local capacity.



Co-learning sessions (both theoretical and practical) at the respective sites offered participants an opportunity to share experiences and agree on implementation modalities.

Exchange visits to areas with ‘success-stories’ inspired and enhanced the confidence of participants to implement complementary technologies.

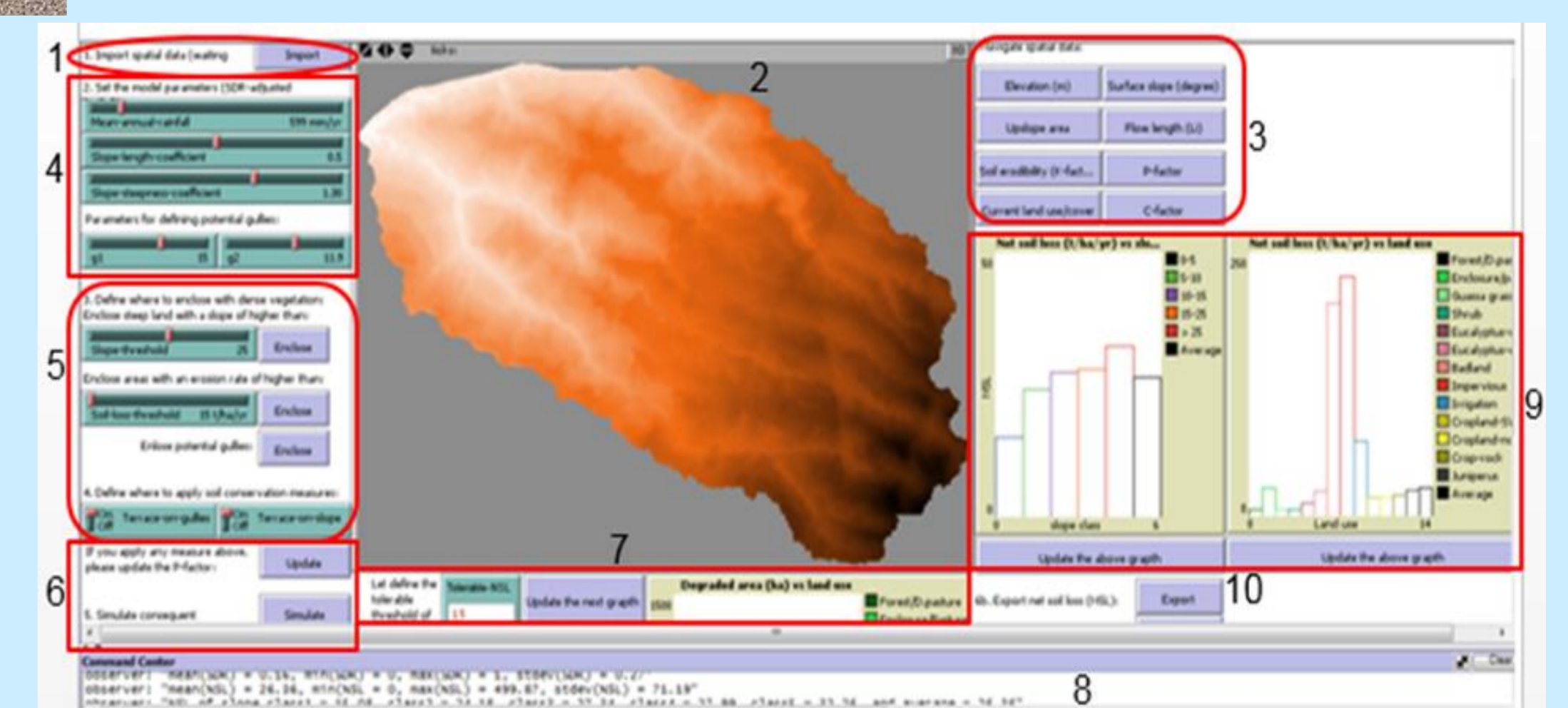
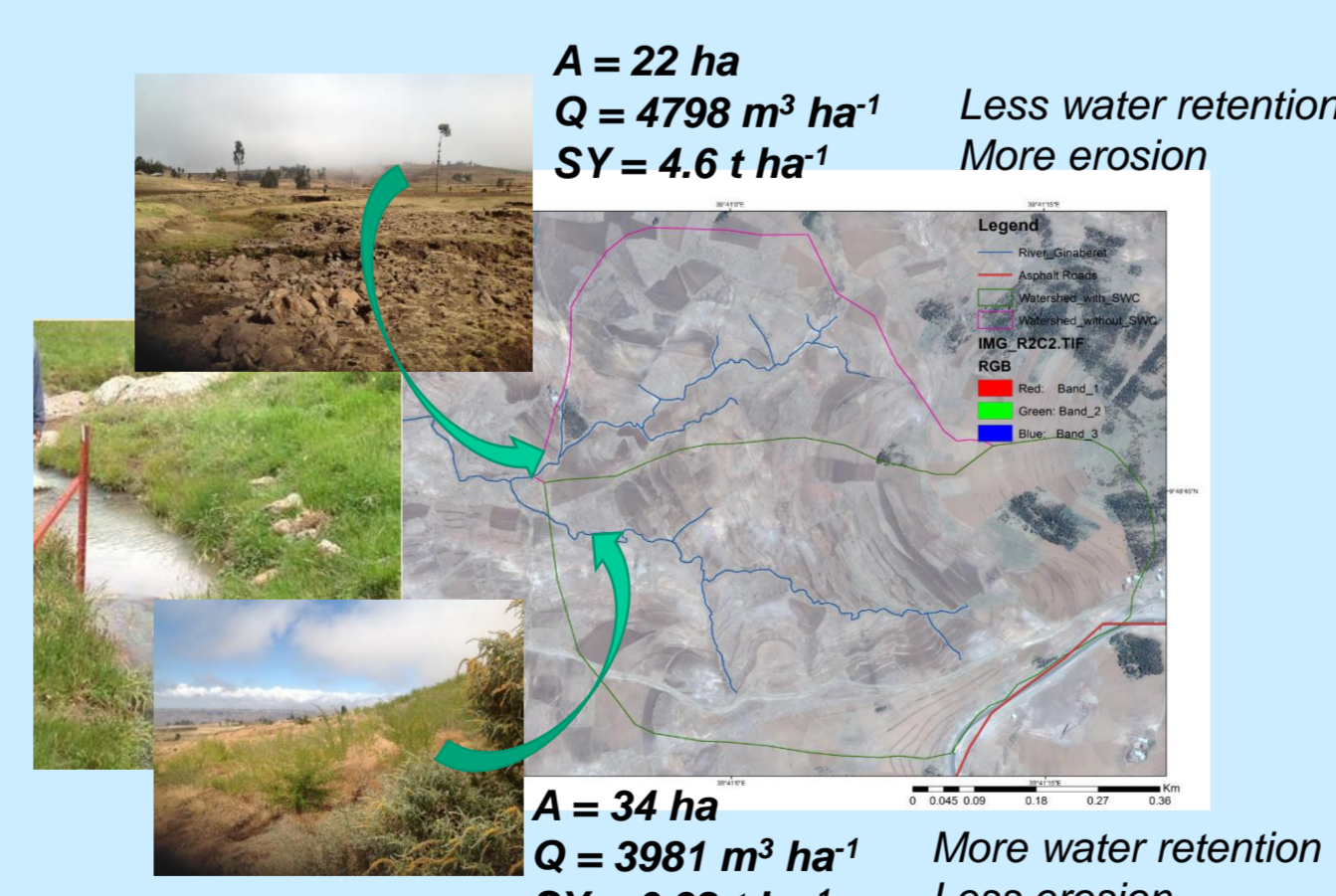
3. Prioritize areas of intervention and co-implement appropriate options



The priority intervention areas were identified based on participatory mapping and modelling exercises. Transect-based field visit was also conducted to visually inspect the mapping exercises and assess the potentials and constraints within sites.

Resources (e.g., gabions) from the Bureau of Agriculture and community labor were used to implement different technologies.

4. Situation analysis, experiments, and modelling for monitoring and impact assessment



Soil survey and infiltration measurement (left) as part of situation analysis, discharge- and soil-loss monitoring at treated and non-treated landscapes (middle) and modelling sediment yield and ex-ante analysis and impact assessment of interventions are key components.

Conclusion

Through proper dialogue and partnership with communities, government and non-government organizations, research centres can contribute hugely to the effective implementation of integrated site- and context-specific land and water management interventions to tackle land degradation, improve land productivity and enhance ecosystem services.

Acknowledgement

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