Development of a systematic Climate Smart Agriculture prioritization process

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It is well recognized that what constitutes CSA for a specific place is very context specific, and that interventions should be prioritized based on evidence. There are existing databases of potential CSA practices, such as CIAT's Best-Bets Compendium and WOCAT's SLM Knowledge database, framework processes for prioritizing CSA interventions, such as the CIAT-CCAFS Climate-Smart Agriculture Prioritization Framework[1]. Building on this past work, here we present a revised comprehensive, transparent and participatory CSA prioritization process and decision-support framework for use by GIZ and partners to develop context-specific climate-smart soil protection and rehabilitation investment portfolios. This framework is based on strong stakeholder consultation moving from scoping to filtering from a long list to a short list, and finally an investment portfolio for project design and implementation at scale.

Through this process, the framework utilizes evaluations of multiple trade-offs (biophysical, economic, social) across three major lines of evidence: (1) climate smartness; (2) key development outcome indicators; and (3) scaling potential (Figure 1). The climate smartness evidence addresses the three pillars of CSA (FAO): sustainable increase productivity; resilience and adaptation to climate change; and climate mitigation and low-carbon development. The key outcome indicators should address broader impacts to GDP, employment, etc. as well as the contribution to broader goals, such as the sustainable development goals, Nationally Determined Contributions (NDCs), Land Degradation Neutrality, among others. And the scaling potential addresses issues of farmer behaviour and economics, as well as if possible the services needed for implementation (e.g. credit, training, etc.)

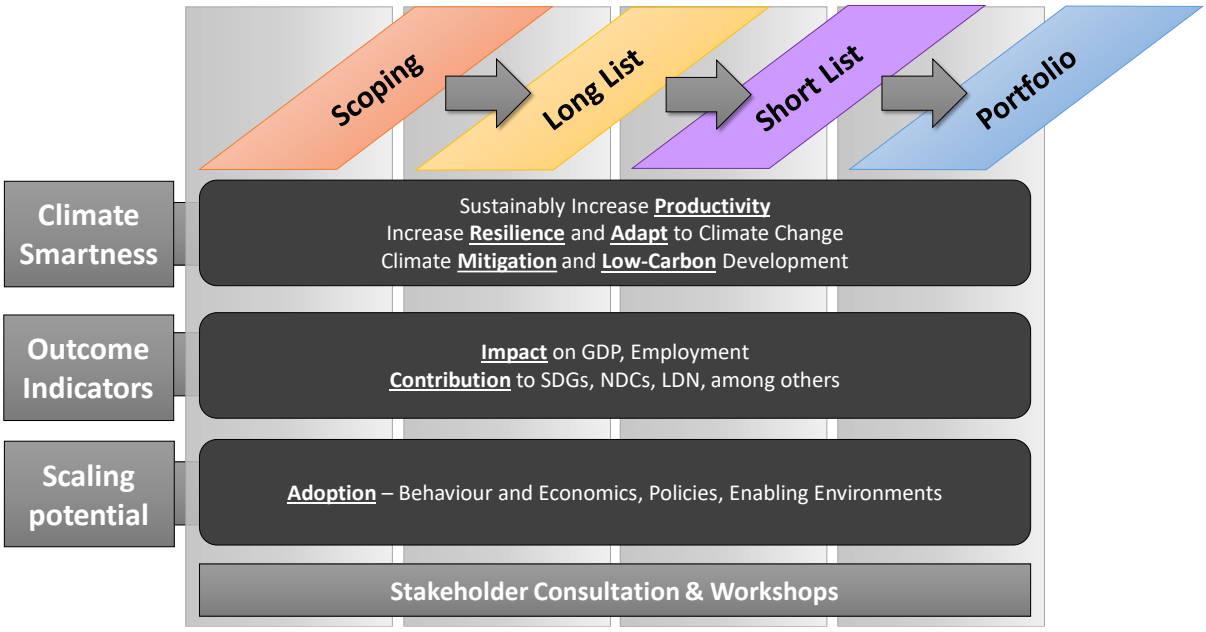

Figure 1: Systematic CSA Prioritization Process from scoping through filtering to an investment portfolio for project design and implementation at scale, utilizing three major lines of evidence on: (a) climate smartness; (b) key outcome indicators; and (c) scaling potential.

[1] see https://ccafs.cgiar.org/climate-smart-agriculture-prioritization-framework

A set of tools and approaches exist for implementing this process across the three lines of evidence (Figure 2). First, during the scoping phase, the stakeholder engaged process starts with consultations and workshops to delineate the geographic area and farmer types being addressed, along with the identification of a set of indicators which provide the context and criteria to use for the prioritization of interventions. The scoping phase is also used for developing a long list of potential CSA interventions to consider, which can be developed from resources including the WOCAT database, ICRAF/CCAFS CSA Compendium, CIAT Best-Best SLM database, literature review and expert solicitation. The long list of potential interventions is then assessed based on an expert scoring of the agreed upon indicators, which the stakeholders use to filter the long list down to a short list of potential options. This short list is then assessed using more in-depth modelling and assessment techniques using farm and household modelling (e.g. FarmDesign[2]), biophysical assessments (e.g. CropSyst[3]), cost-benefit analysis of economic viability at the farm scale[4], and social acceptability assessments (e.g. Evaluation of Land Management Options[5]). Together this information, both from the rapid expert and more in-depth assessments, forms the lines of evidence used in final consultations and workshop, where stakeholders use the information to agree on a final portfolio or set of portfolios for investment and implementation.

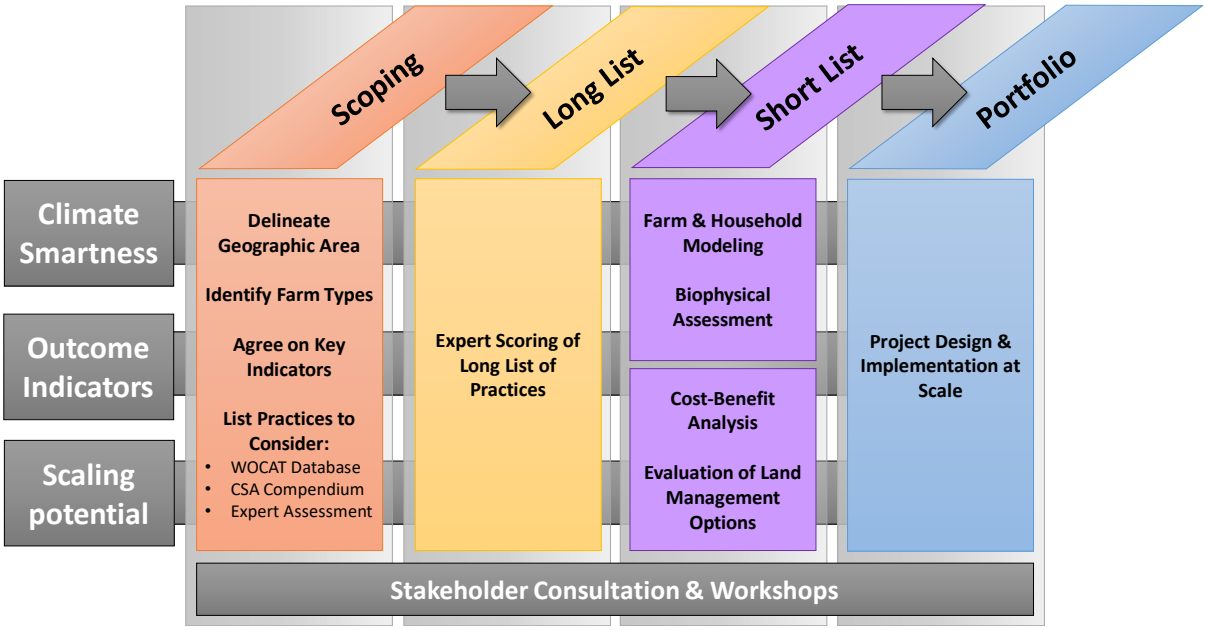

Figure 2: Tools and approaches for implementing the Systematic CSA Prioritization Process from scoping through filtering to an investment portfolio for project design and implementation at scale, to provide evidence on: (a) climate smartness; (b) key outcome indicators; and (c) scaling potential.

[2] https://sites.google.com/site/farmdesignmodel/home
[3] http://modeling.bsyse.wsu.edu/CS_Suite/cropsyst/index.html
[4] http://cbatool.ciat.cgiar.org/
[5] https://cgspace.cgiar.org/handle/10568/68989