Title	**Making investments in soil rehabilitation count for food insecure farmers**
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1 | DESCRIPTION

The New Climate Economy 2015[1] reports that the restoration of 150 million hectar of agricultural land as aimed for by the New York challenge will cost no less than US$ 150 billion; which points to gaps between available public resources and budgets necessary for implementation of ratified agendas. To unlock private capital for achieving "Land Degradation Neutrality" the UNCCD together with the Global Mechanism set up the Land Degradation Neutrality (LDN) Fund, to leverage public funds with private capital. However, a recent study[2] has highlighted that investments for LDN still play a minor role due to low returns, little experience and/or skepticism of developers and managers. Particularly when it comes to areas with high degrees of degradation, new and different modes of financing need to be explored systematically if food insecure smallholder farmers are to profit in the end.

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In this session we discussed the Economics of Land Degradation Initiative´s regional case studies of Western Kenya, Benin, and we reflected on the basis for the business case for soil restoration and how it could be strengthened. We also discussed the role of private sector investments and what they could offer in terms of livelihood improvement, ecological restoration, and how economic and social benefits can be optimized. Discussants focused on identifying types of financing that are most supportive of sustainable land management (SLM) in smallholder contexts, and the conditions that need to be met from farmers´ perspectives. That said, experiences, successes and challenges in providing finance to smallholders for sustainable soil management should be shared and further explored which conditions and types of financing are needed.

2 | MAIN DISCUSSION POINTS

Ravi Prabhu, Research Director of ICRAF, introduced the topics and objectives of the session and guided the discussions in the plenary. He opened **PART I** of the session by introducing **the costs and benefits of soil restoration with the case studies of the Economics of Land Degradation (ELD) Initiative in Kenya and Benin.** The Kenyan case covered two districts of western Kenya, where costs and benefits of specific SLM practices on different farm types, for different (main) crops where assessed using both farmer´s perceptions and return on investment (ROI) calculations.

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Philip Osano, SEI International, reported that a return on initial investments was realized within two years on average, but that from a farmer's perspective the benefits of investing in more long-term agroforestry practices were perceived as "zero, or even negative." For best Benefit-Cost-Ratios for farmers, SLM practices with low implementation costs (manuring, intercropping) offer the lowest hanging fruits in terms of widespread adoption. He stressed the need for targeted support, e.g. via adapting existing subsidy schemes, to encourage farmers to invest in the more labor intensive or expensive options such as terracing, farm ponds and woodlots, in order to share the costs of these interventions more fairly. While the ELD study in **Benin** still is in an early stage, through his presentation **Victorin Houndekon**, Université d'Abomey-Calavi, highlighted the bundling of diverse SLM technologies as one of the key innovations and noted that the common methodology adopted by the study has enabled cross-country comparisons.

Dennis Garrity, UNCCD Drylands Ambassador, presented the business case for national-level investments in "massive upscaling" of fertilizer trees and shrubs, in order to reach "the bottom 50 million smallholders." Highlighting research in Malawi where poor farmers have doubled their crop yields by intercropping with *Faidherbia Albida*, an indigenous acacia species, Garrity challenged the agricultural research and development community to pay more attention to scaling up such "obvious" solutions. He challenged current global estimates on the cost of rehabilitating soils by stressing fertilizer trees and shrubs as the lowest cost options for smallholders and provided an outlook on the high potential of public-private partnerships to stimulate expansion of nurseries and therewith smallholder businesses.

PARTs II and III of the session focused on **'Bridging the Gap: What are Governments Doing to Support Smallholders to Implement SLM?' and on "Farmers´ and farm level perspectives"**. **T. S. Mohan**, the National Bank for Agriculture and Rural Development (NABARD), India, noted that provision of working capital for both on- and off-farm investments such as terracing, land levelling, and bio fertilizers and pesticides is becoming feasible for finance institutions. He presented models of grants and soft loans to farmers as models for providing patient capital that are applied by NABARD for soil health restoration.

On community-level perspectives, **Paul Okong`o,** Technology Adoption Through Research Organizations (TATRO), Kenya, reported that supporting farmers' groups to organize themselves and pool their resources is one of the best approaches for facilitating knowledge sharing and enhancing access to financing and marketing opportunities. With an example of the establishment of local grain banks he illustrated the crucial role of democratic elements in the organisation of such activities. He highlighted the importance of organizing follow up and monitoring of the use of funds as a community based learning and capacity building process.

Melaku Tadesse, GIZ Sustainable Land Management Programme, Ethiopia, highlighted some SLM best practices in Ethiopia with upscaling potentials including the establishment of resource "envelopes" that pool funding from different sources, and encouraging private investors to support ecological restoration based on viable business models such as those highlighted in the ELD Initiative studies. Confirming this perspective, the "Ethiopian Strategic Investment Framework (ESIF) for SLM" recommends that such funding mechanisms feed into capacity building activities at the various structural levels, from human capital, to community, to strengthening institutional systems and "hardware". Ensuring long-term land security and the integration of the grassroots level were stressed as crucial elements to moving forward with making investments in soil and land restoration beneficial in environmental, social and economic terms.

PART IV of the session presented the investment perspective by different private and public-private actors from the UNCCD´s LDN Fund, the Kenya Commercial Bank and the International Finance Corporation of the World Bank. **Simone Quatrini**, LDN Fund Coordinator (via video link) introduced the UNCCD's Land Degradation Neutrality (LDN) Fund; which is designed and operates as a blended finance mechanism that is co-implemented with Mirova, a subsidiary of a French corporate bank, and Innpact, a specialist impact investing firm. It provides long-term financing (debt/equity) within a strict environmental and social safeguard framework to (large-scale) SLM-projects that are expected to generate profits. Eligible projects identified so far targeted cocoa renovation and rehabilitation, linking cattle production to pasture restoration, and sustainable charcoal production. With regard to managing investor expectations, Quatrini explained that mixing diverse funding sources to spread (share) risks and selecting the right projects means that the LDN Fund "does not promise double digit returns but market average returns."

Clarisse Aduma, Agri-Business Development Manager, Kenya Commercial Bank (KCB Group), discussed the Group's partnership with Alliance for a Green Revolution in Africa (AGRA) and the Mastercard Foundation to reach two million farmers in Kenya and Rwanda through mobile-based banking services, such as Kenya's M-Pesa platform. She highlighted the importance of providing an integrated package of support and services, including training and capacity building, adapting credit scoring systems, incorporating non-financial services such as

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providing market information via text messages, and mitigating risk through “automatic” farmer insurance. Aduma admitted that credit and finance institutions need much more to put themselves into farmer´s shoes, stating they “are not experts in land or soils but only in money”, and that more human-centred approaches are required in designing financing products and mechanisms.

Yosuke Kotsuji, International Finance Corporation (IFC), said the Agency is increasingly moving into smallholder financing based on a strategy of increased partnerships with farmers’ cooperatives and providing guarantees for banks to design farmer-friendly financial products. The main challenge has been the aggregation of smallholders, since for the IFC, investment sizes from 5 Mill. $ are minimum. He cited the example of a project in Ivory Coast where IFC has facilitated loans to provide seasonal working capital to 100 cocoa cooperatives; an outlook of the IFCs activities could be to structure a Guarantee Facility to a local bank/leasing company.

In **World Café** round table discussions participants exchanged thoughts on types of interventions and finance tools that offer most opportunities for farmers with regard to **a)** spreading out investment risks, and **b)** challenges that farmers continue to face in accessing finance. Among several other issues participants highlighted:

- the high cost of credit for farmers;
- the need to disseminate lessons and best practices, such as NABARD in India;
- the need to adapt institutions to reach farmer scales;
- needs and approaches to involve all actors within agri-food value chains to enhance market access for farmers;
- the need for banks to adapt their business models to more human-centred designs of financial products and services through consulting farmers about their needs;
- the need to reach farmers individually and develop e-marketing portals for farm products as a potential game changer;
- challenges to management of grants and subsidies for farm inputs; and,
- the need to reform current subsidy programmes to reward investments in ecosystem services as opposed to solely focusing on inputs and increasing outputs.

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3 | KEY MESSAGES

- Current financing and accounting systems are not designed to capture the complexity of soil restoration.
- Where bankable projects exist, they are based on business-as-usual agriculture aiming at increasing production and outputs, e.g. loans for farm inputs are available; few such models exist for long-term soil health regeneration and different models for agriculture.
- Public funds should be used to incentivize bankable models for sustainable agriculture and sustainable practices.
- To bring SLM to scale, questions of financial as well as social capital need to be addressed; hence connecting farmers to financial capital requires:
    - supporting farmer´s organization(s);
    - developing existing and establishing new processes of knowledge production and sharing; an infrastructure of new and smarter data and tools that create the necessary financial infrastructures in rural areas for smallholders; and,
    - processes of follow-up and monitoring on community basis as supportive learning processes.
- Legal frameworks are required, that:
    - recognize and protect tenure rights;
    - allow for flexibility in financing, financial services and repayment of loans;
    - strengthen institutions and organizations down to grassroots level; and,
    - support harmonization of subsidy schemes to include SLM practices.

Further Information: IISD Highlights Global Soil Week

NOTES

1 *The New Climate Economy*, "*Restoring and protecting agricultural and forest landscapes and increasing agricultural productivity", 2015;* http://newclimateeconomy.net/content/press-release-protecting-valuable-forests-and-restoring-degraded-lands-climate-economic

2 Mirova, structuring and managing partner of the Global Mechanisms "Land Degradation Neutrality Fund" (LDNF), June 2016, *"Unlocking the market for land degradation neutrality".*