

Blog “Sustainable Land Management in Sub-Saharan Africa: Improving livelihoods through local research”



INTRODUCTION



Our blog is intended for project staff as well as interested stakeholders from science, policy and practice, to share experiences and mutually learn. It is an opportunity to showcase the multi-faceted nature in which we improve livelihoods and support sustainable land management through local research.

This current blog is prepared by Linda Busienei und Lilian Waithaka, and shares experiences and lessons learned from activities in Northern Ghana in October 2024, focusing on how agricultural insurance can incentivise climate-smart farming through partnerships, financial incentives, and sustainable practices like minimum tillage and drought tolerant seeds.

CAN INSURANCE DRIVE SUSTAINABILITY? INCENTIVIZING CLIMATE-SMART FARMING IN NORTHERN GHANA

As part of the **COINS** project’s enabling work package, the ACRE team visited Savelugu in Northern Ghana in October 2024. The primary objective was to establish



partnerships to promote the adoption of Integrated Soil Fertility Management (ISFM) practices by leveraging insurance as an incentive, with a focus on minimum tillage, certified seeds and both organic and inorganic fertilizers.

Agriculture in Northern Ghana faces persistent challenges—unpredictable weather, limited access to quality inputs, and knowledge gaps that hinder productivity. How can Insurance, often cited as a tool for risk management, also become a catalyst for sustainable agricultural practices?

During our recent visit to Tamale and surrounding areas, we explored how bundling agricultural insurance with Integrated Soil Fertility Management (ISFM) practices can encourage the adoption of climate-smart farming methods. The results reveal an innovative pathway to resilience and sustainability.

LINKING INSURANCE TO SUSTAINABLE PRACTICES: HOW MINIMUM TILLAGE AND DROUGHT-TOLERANT SEEDS LOWER RISK AND PREMIUMS

One of the key takeaways from our engagement with farmers was the potential of insurance to serve as a financial incentive for adopting sustainable practices. For instance, farmers who embrace minimum tillage, a practice that conserves soil moisture and reduces erosion, could benefit from reduced insurance premiums. This is because minimum tillage enhances soil structure, making crops more resilient to dry conditions and reducing the likelihood of crop loss. By lowering the risk of failure, insurers can offer discounted premiums or cashbacks to farmers using this practice.

Similarly, farmers planting drought-tolerant seed varieties, which are designed to thrive in conditions of erratic rainfall, have a higher chance of a successful harvest even during dry spells. These seeds improve productivity,



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allowing farmers to weather climate extremes more effectively. Since the risk of total crop failure is reduced, farmers who adopt these varieties become eligible for insurance discounts, as insurers are exposed to lower risks.

These financial incentives not only help farmers boost agricultural productivity but also contribute to mitigating climate-related risks. Ultimately, the more sustainable practices farmers adopt, the less likely they are to experience total losses, which directly lowers the risk for insurers. In turn, insurers can reward these practices with reduced premiums, creating a win-win situation for both farmers and the insurance industry.

THE CHALLENGE OF LINKING INSURANCE WITH ISFM

While the potential benefits are clear, the integration of insurance with ISFM faces significant financial constraints. Many smallholder farmers struggle to afford the upfront costs of ISFM investments, such as organic fertilizers and improved seed varieties, despite their long-term benefits. These financial barriers limit their ability to adopt climate-smart practices at scale. At the same time, willingness to pay for insurance remains a challenge, as farmers often prioritize immediate farming needs over risk mitigation tools like insurance. Addressing these dual constraints requires innovative financing mechanisms, such as credit-linked insurance models, subsidies, or blended finance approaches that lower the cost burden on farmers while ensuring insurance uptake.

FARMERS’ PERSPECTIVES AND THE ROLE OF GENDER

A workshop facilitated in collaboration with RUR Bochum, SARI, and Uni Bonn revealed valuable insights into farmers' perspectives. Men and women shared distinct challenges—women cited barriers like limited access to tractors and financing, while men emphasized declining soil fertility and market constraints.

This understanding reinforces the need for solutions that consider gender-specific challenges. By promoting practices like minimum tillage, which reduces tractor

dependency, and leveraging digital tools for education, we can create pathways for inclusive and sustainable farming systems.

PARTNERING FOR CHANGE

Input suppliers also play a critical role in this transformation. Discussions with local suppliers highlighted the need to align farmer education with market demand. While seasonal purchases largely dictate stocking trends, suppliers face cash flow constraints and limited awareness about the role of insurance in de-risking agriculture.



Partnerships with these suppliers, alongside financial institutions and government bodies, are essential for creating an ecosystem where sustainable practices thrive. For example, bundling inputs like organic fertilizers with insurance could enhance their appeal while supporting climate-resilient farming.

THE ROAD AHEAD: BRIDGING GAPS AND BUILDING TRUST

As promising as these initiatives are, scaling them requires more than just financial incentives. Education and trust-building remain critical. Farmers need to see the tangible benefits of insurance and how it ties to sustainable practices. Demonstration plots, community dialogues, and local media campaigns can bridge these knowledge gaps and foster greater adoption.

In Northern Ghana, the intersection of agricultural insurance and sustainable intensification practices presents a unique opportunity to reimagine farming. By aligning financial tools with climate-smart solutions, we can empower farmers, enhance resilience, and pave the way for a sustainable future.

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PHOTOS

Courtesy of **COINS**

FOR FURTHER INFORMATION

Funded by the German Federal Ministry of Education and Research (BMBF), within the strategy of its platform [Research for Sustainability](#) (Forschung für Nachhaltigkeit, FONA), the **INTERFACES** project works with four regional projects – **COINS**, **DecLaRe**, **InfoRange** and **Minodu** – to strengthen the integration, coherence and reach in the area of sustainable land management.

MEDIA

Follow us for updates on the research programme on our [website](#) and follow us on [LinkedIn](#) and on [D-Groups](#).

IDOS Newsletter December 2024 - [Official Side Event at COP16 in Riyadh explores Youth's Role in Innovation](#)

PREVIOUS BLOG CONTRIBUTIONS

[“Science and Stories: A Journey to the 2025 Global Forum for Food and Agriculture”](#)

[“Understanding farmers' decisions: activities in northern Ghana”](#)

[“Strengthening agricultural resilience in Senegal: key insights from a field mission”](#)

[“UNCCD COP16 Side Event: The Role of Youth in Innovation for SLM”](#)

[“Geotools for smallholder farmers”](#)

LATEST BRIEFING SERIES

1/2024 - [Fostering gender-responsive innovation adoption among smallholder farmers in Africa](#)

LATEST VIDEOS

[Funding conditions of transdisciplinary research for sustainable development in Africa](#)

[Making Wangatchi: Traditional vs New Approach - Interview with Oroudjo Amina](#)
(with french captions)