

The Tem Sesiabun Gorado (TSG) model



An innovate farmer-to-farmer knowledge transfer approach



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What is the Tem Sesiabun Gorado model?

In Benin, approximately 19% of the national territory (MCVDD, 2017) and 60% of the country's agricultural land (Westerberg et al., 2017) are classified as degraded. The continuing loss of soil fertility risks amplifying a food crisis that has already been exacerbated by the COVID-19 pandemic and the war in Ukraine.

Small farmers are the most vulnerable to land degradation. In 2010, approximately 1.8 million people in Benin were living on degraded land (UNCCD, 2018). More than 10 years later, it remains a cause of national concern that sustainable land management (SLM) has not been widely adopted despite multiple efforts by the government of Benin and its partners. In Benin, as elsewhere in Africa, this weak adoption is the result of several interrelated factors. The most common are the limited reach of agricultural extension services, low efficacy of classic approaches to transferring knowledge between farmers, lack of appropriate institutional methods to support the upscaling of successful experiences, and the absence of mechanisms to motivate farmers to transfer knowledge.

“ a paid extension officer cannot reach thousands of isolated small farmers with improved techniques, but a well mobilised community always cans ”

John Conrood, Executive Vice President of the Hunger Project.

“ A lot of proven technological know-how has not been well disseminated ... When we look on the ground, we see two things missing: social recognition of farmers' work, and the message conveyed that what he receives as a technological package is a social debt that he must pay back by training others ... ”

Statement by HE Gaston Cossi Dossouhoui Minister of Agriculture, Livestock and Fishing of Benin. Source: <https://youtu.be/K0ScI17z60>

The Tem Sesiabun Gorado (TSG) model was designed to meet the challenges outlined above. It is the result of collaboration between **TMG Research**, the “Soil Protection and Rehabilitation for Food Security” (**ProSoil**) project of Germany's international cooperation agency (Deutsche Gesellschaft für Internationale Zusammenarbeit – GIZ) and the Research Laboratory on Innovation for Agricultural Development (**LRIDA**) at Parakou University, Benin. Adopted by the ProSoil project as a scaling strategy for SLM, the TSG model has to date been implemented in 456 villages in Benin.

What does Tem Sesiabun Gorado mean?

Tem Sesiabun Gorado (TSG), literally means “land restoration messenger” in Baatonum, one of the languages of Benin. This term should be adjusted to the socio-cultural context where the model is implemented.

How does the TSG model work?

A farmer is elected and mandated by their community to serve as a Tem Sesiabun Gorado (TSG), or relay farmer, with a project promoting SLM measures or agricultural innovation generally. The knowledge received by the farmer during training is later transferred to the wider community. In order to properly assume this role, the TSG must correctly apply the measures learned during training. He/she must also multiply the seed inputs received, for example by experimenting with nitrogen-fixing crops. In this manner, the TSG not only transfers knowledge about nitrogen-fixing crops, but also offers future trainees an opportunity to experiment with them.

At the core of the relationship between the TSG with their constituents is the principle of social debt. This is proposed as a solution to the challenge of motivating farmers to engage with the knowledge sharing process over the long term. Community members recognize that the project was initiated on behalf of all members of the village and is not intended to benefit only certain individuals (e.g., relay-farmers, model farmers, farmer leaders, etc.). By agreeing to receive training, seeds, and technical support for the well-being of their community, the TSGs incur a social debt. To repay this debt, the TSG publicly commits to transferring the knowledge and competencies acquired to a limited number of their fellow community members (known as „farmer-learners“) within a mutually agreed period (one or two agricultural seasons). These farmer-learners are referred to as first-generation learners (see Figure 1).

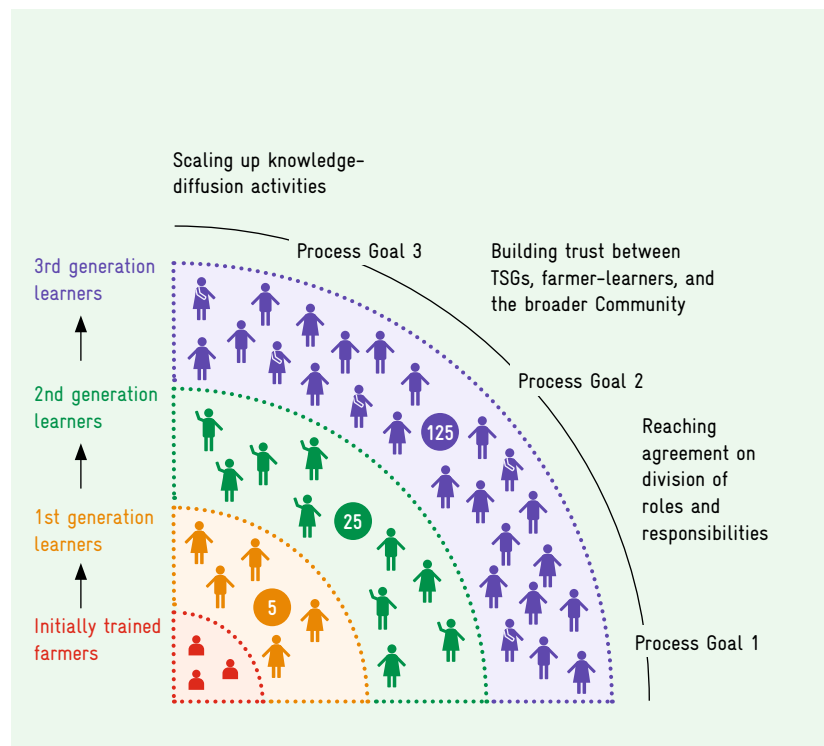


Figure 1: Logical framework for implementing the TSG model
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Farmer-learners who receive training, seeds, and technical support from their TSGs in turn incur a social debt which they are expected to repay by supervising other farmers (second-generation learners). This knowledge-sharing cycle is continued until a saturation threshold is reached within the community.

Some technical supervision and monitoring by extension agents is needed during the knowledge transfer processes to ensure that farmer-trainers and farmer-learners fulfil their respective obligations. This requires open discussions between trained and non-trained farmers to ensure acceptance of the social debt as a moral obligation to the entire community (Process Goal 1).

Effective knowledge diffusion also requires building trust between farmer-trainers (the TSGs) and farmer-learners. It is important to address socio-cultural barriers that may constrain knowledge diffusion. Trust is built through transparent and inclusive selection processes for TSGs (Process Goal 2).

Finally, attention should be paid to the underlying context, which influences the implementation of the TSG model. As this continues to change, an iterative process of assessing, analysing, and adapting the TSG training modules is needed. This also includes review of the broader processes and mechanisms of knowledge sharing (Process Goal 3).

Results from implementing the TSG model

- ▶ From 2019 to 2021, the TSG model helped to increase the number of farmers trained in sustainable land management practices from 20,085 to 73,257 (source: coordinator, ProSoil project).
- ▶ Qualitative studies demonstrate that the TSG model ensures a high accuracy of SLM knowledge transfer from one generation of farmer-learners to another. No loss of knowledge was identified.
- ▶ In places where an effort was made to select women as TSGs, the proportion of women selected as farmer-learners reached nearly 40% (source: monitoring data from LRIDA, June 2021).

Anchoring the TSG model in Benin's National Strategy for Agricultural Advisory Services

The TSG model is a specialised technical advisory approach. It is one type of extension approach that puts farmers at the centre of knowledge sharing. In its design, it aligns well with the implementation principles of Benin's agricultural advisory policies as defined in the second National Strategy for Agricultural Advisory Services (SNCA II):

- ▶ **Principle of contractualization:** The selection process, public engagement and commitment by the TSGs rely on a community contract based on the concept of social debt. This creates a sense of accountability between the TSG and their community.
- ▶ **Principle of co-financing:** By using their time, energy, and resources to share knowledge with peer-farmers, the TSG provides a form of co-financing in kind.
- ▶ **Reciprocal trust:** The selection of the TSG and succeeding generations of farmer-learners is based on trust. Likewise, learning between TSG and peer-farmers requires mutual trust, in particular between the TSG and their trainees.
- ▶ **Principle of free and voluntary membership:** The TSGs and farmer-learners commit freely and voluntarily to the process of knowledge sharing.

- ▶ **Principle of diversity:** The SNCA II encourages the development of various extension approaches, methods, and tools that support the objectives and specificities of the project intervention area(s). The TSG model thus contributes to enriching existing knowledge-sharing approaches on sustainable land management and environmental knowledge generally.
- ▶ **Principle of subsidiarity:** By entrusting farmer-trainers with the responsibility for knowledge sharing in their own communities, the TSG model respects the principle of subsidiarity, namely that functions which can be fulfilled by a lower authority should be.
- ▶ **Principle of complementarity:** Traditionally, extension agents focus on technical advice (post-harvest waste management, crop yield, pest management, etc.) and marketing objectives. Even in promoting sustainable land management practices, they tend to undervalue the role of farmer leadership in adopting and diffusing SLM. The TSG model fills this gap, while complementing other existing extension approaches.

In summary, the TSG model is a type of specialised technical advisory service that aligns well with the principles of the SNCA II. For this reason, it was suggested during a reflection workshop involving policy decision-makers, researchers, and practitioners, that the TSG model be institutionalised and integrated into Benin's third National Strategy for Agricultural Advisory Services (SNCA 3).



Recommendations for scaling up the TSG model

For policymakers

- ▶ **Capitalise:** Continue the capitalisation of the TSG model learning outcomes and encourage its uptake by the Agricultural Development Territorial Agencies [Agences Territoriales de Développement Agricole] and other partners.
- ▶ **Institutionalize:** Support the integration of the TSG model in the SNCA 3 as a specialised agricultural advisory approach.
- ▶ **Regulate:** Establish a regulatory framework for mechanisms to motivate farmers to engage in providing extension services.



For practitioners

- ▶ **Legitimize:** Strengthen women's leadership in the promotion and dissemination of agricultural innovations to reduce gender inequalities in relation to access.
- ▶ **Consolidate:** Create a framework that consolidates the trust of stakeholders who are involved in implementing the TSG model.
- ▶ **Change:** Focus the training of extension agents on community facilitation and peer-based learning, in addition to technical advisory services.

For technical and financial partners

- ▶ **Support:** Continue to explore the advantages of the TSG model by supporting its implementation and strengthening exchanges and synergies between programmes and projects.
- ▶ **Anticipate:** Integrate the time and resources needed for the participatory and communication processes that undergird peer learning, as promoted in the TSG model, in the design and planning of projects and programmes.
- ▶ **Collaborate:** Coordinate interventions, including the mechanisms and strategies to sustain the outcomes of the TSG model, and reinforce synergies between partners on the ground.





About the project

This brief is based on the results of a research project implemented by TMG Research gGmbH. This project is part of the One World, No Hunger initiative of the German Federal Ministry for Economic Cooperation and Development (BMZ). It is implemented through several projects and programmes, including the "Soil Protection and Rehabilitation for Food Security" project (ProSoil). In Benin, the ProSoil project was implemented by GIZ and the Ministry of Agriculture, Livestock and Fisheries, and has the goal of protecting and rehabilitating 200,000 hectares of degraded lands by 2023. The TSG model was developed by TMG Research, in close collaboration with ProSoil and LRIDA, University of Parakou with the goal of scaling up best practices of sustainable land management and adaptation to climate change (SLM/ACC).

To learn more about the TSG model, visit our websites:
<https://lrida-up.org/> and www.soilmates.org





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