



The complexities of measuring the impact of land projects

By Nieves Zúñiga

6 September 2023 | Land Portal Foundation

Weak land governance is globally recognised as a constraint to development and stability. Secure land tenure is considered a driver of poverty alleviation, food security and gender equality. These recognitions have led donors, governments and civil society to increase their efforts to improve land governance, and to the inclusion of a land tenure indicator within the Sustainable Development Goals (SDGs).

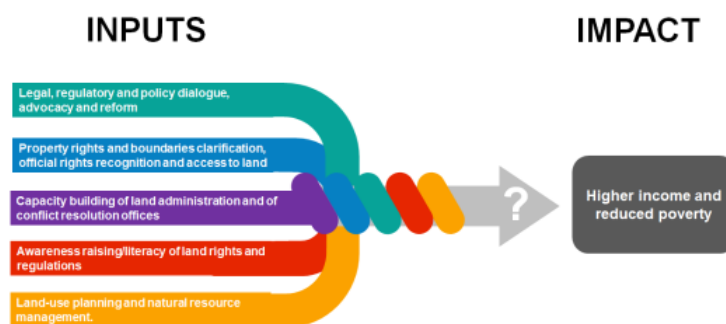
Yet, these efforts contrast with the scarcity of evidence about their impact. In fact, many implementers conduct evaluations of their performance but few of them conduct evaluations of their impact.

Based on the specialized literature and on interviews with practitioners working on the ground, this data story reflects on the complexities of measuring the impact of land

governance projects and summarize some of the best practices on impact evaluation from the well-known guidelines on the topic.



A beneficiary dancing with joy with his Certificate of Customary Ownership (CCO) in Uganda, facilitated by the project "Scaling-up Community-based Land Registration and Land Use Planning on Customary Land in Uganda". Picture by the The Global Land Tool Network (GLTN)



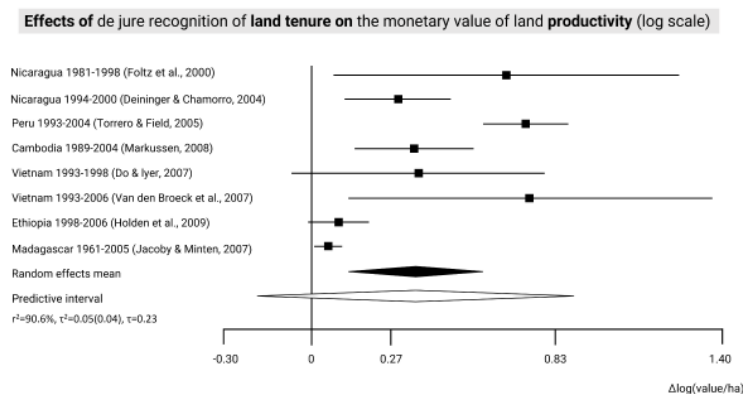
Gaps in impact knowledge

Let's look at why impact evaluations are important. They show the causality of projects' outcomes, that is, they look at to what extent changes in a given context are due to project interventions. However, it is not easy to conduct solid impact evaluations, and weak evaluations can be misleading.

Reviews of land interventions show a scarcity of supporting evidence regarding the driving factors, timeline, and contextual dynamics through which land governance projects translate into tangible impact for beneficiaries.

In 2016, a [review](#) by the Millennium Challenge Corporation (MCC) on the economic benefits from land tenure and governance interventions found that many pathways of change lacked supporting empirical evidence. It revealed ambiguity surrounding the required timelines to achieve key outcomes, lack of evidence of the interlinkages among outcomes, and weak understanding of how the benefits are distributed among various beneficiary groups.

The figure on the right presents a simplified version of the theory of change from the ['Guidelines for Impact Evaluation of Land Tenure and Governance Interventions'](#), published by the UN-Habitat. The model considers both the current land information and anticipated outcomes that haven't been proven yet or that show varied results due to different situations. A question mark has been added to highlight the reported mixed evidence or the lack of evidence of causal links between project interventions, income, and poverty.



Through an in-depth [analysis](#) encompassing 29 case studies, the Campbell Collaboration

examined the effects of property rights on agricultural investment and productivity. The findings indicated that the issuance of land titles had a positive impact on productivity and investment in agriculture across Asia and Latin America. However, this effect was not substantiated in Africa, where customary land rights are predominant.

In the African context, the benefits of formalizing land ownership might be more limited, as customary tenure often imparts a sense of security to local communities (though with exceptions). In that sense, reform programs promoting land titling often assume there is a higher level of tenure insecurity than in reality. The review concluded that there was a lack of evidence on communal land rights and on the nuances and dynamics of the land environment.

Reviews also highlight methodological limitations in impact evaluations. In 2017, a [review](#) of 52 case studies conducted by the International Food Policy Research Institute (IFPRI) and with a focus on women's land rights suggested a shift from perceiving households as uniform entities pooling resources. Instead, evaluations should distinctly survey women, recognizing their more limited access to resources, and acknowledge the distinctive aspects of women's tenure and relationships.

The graph presented on the right shows estimates of the effect of de jure recognition of tenure on the monetary value of land productivity (log scale). Productivity of land use was measured in terms of prevailing market monetary value of agricultural output. Lines extending to the right on the x-axis indicate beneficial effects. Figure by Campbell Systematic Reviews.



Practitioners in the field highlight a further complication: proving how structural changes can lead to project outcomes. This is because changes in the setup might slow things down and sometimes the effects are not grasped by the usual indicators.

For instance, let's talk about improving women's access to land. Land projects might need to start by getting people to understand why this matters and changing how they think about it.

Take the LAND-at Scale project in Uganda as an example. It's supported by the Ministry of Foreign Affairs of the Netherlands and the Netherlands Enterprise Agency (RVO). One of their goals is to get more land registered under both male and female names in households.



Simon-Peter Mwsigye, Land Tenure Advisor with Global Land Tool Network and UN-Habitat

“To register land titles under both the husband and the wife names opposes the traditional male power over land. This has an impact in how decisions can be made in the household and, potentially, it might lead to power changes at the household level”,

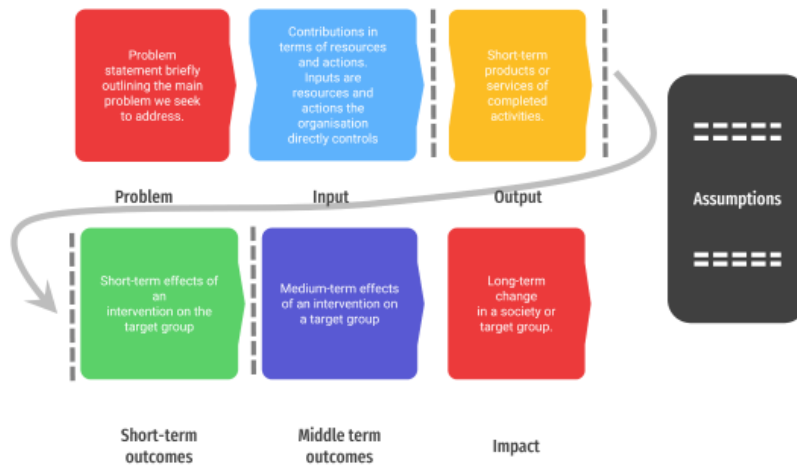
For the double registration to have positive effects, the project is promoting dialogues with families, getting community leaders involved, and even working with people who can influence change in the villages. It's all this groundwork that sets the stage for the social and cultural transformation that might lead to the double registration, which empowers women.

The Customary Marriage (Registration) Act in Uganda is a pivotal legal framework that provides formal recognition and protection for customary marriages. It safeguards land ownership rights, empowers individuals involved in these marriages, and ensures their security through the process of legal registration.

The picture on the right shows families in Uganda receiving their land title. Credits: by ZOA, a Dutch based humanitarian organization.

Challenges and best practices

Here we present some of the main challenges in conducting impact evaluations of land projects. Each challenge is followed by a best practice that can help overcome it according to some of the available literature on the subject.



Challenge 1:

The lack of a clear plan of what the project is changing (a 'theory of change'), who will benefit and what results to expect

The [Guidelines for Impact Evaluation of Land Tenure and Governance Interventions](#), developed by the International Fund for Agricultural Development (IFAD) and the Global Land Tool Network (GLTN), says this is a common challenge confronting impact evaluators.

As a result of the lack of a detailed theory, evaluations have simplified complex issues, narrowing their analysis to single explanations and prioritising quantitative indicators to demonstrate impact - for example, the number of land titles issued.

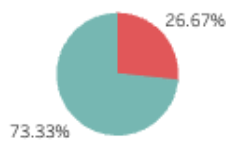
However, as Mwesiye points out:

"There is a narrative beyond quantitative indicators that has to be understood and told. If we do not know what the starting point of the

intervention was we cannot really understand what the numbers mean”.

A project's Theory of Change (ToC) tells why and how things will change. It describes what needs to get better with a certain problem and how the project will make that improvement happen. The graph is a modified version of a framework created by Norfund for designing ToC.

Do you believe that a document could protect them against losing their land?



Y/N
■ No
■ Yes

What are your expectations of the certificate?

What are your expectatio..

It will prevent conflicts

Simplifying things too much can lead to misunderstandings.

For example, just having a land title might not mean as much for people targeted by the project as we think.

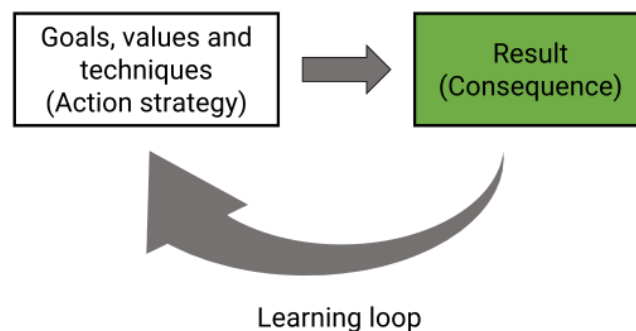
The staff at ZOA, a Dutch humanitarian group that implements the LAND-at-scale project in Burundi, found that, even if a land certificate has a legal value, local people were not that interested in having the certificate physically. They were worried about where to keep it safe or didn't want to pay for the certificate, despite its affordable price. It's not just about having a paper, it's about feeling secure.

A baseline study conducted in Nyanza Lac, a commune characterized by high levels of conflict where the LAND-at-scale project in Burundi takes

place, reveals that even if the majority of the study participants (73%) believed that to have a certificate could protect them from losing their land and 55% expected that it would prevent conflicts, participants also perceived disadvantages and risks associated to it.

21% feared the costs of land certificates and 15% felt that those without money would not benefit. The same study found that many respondents consider themselves full owners of the land even if the land is under customary tenure. This may imply that customary tenure is considered very secure, or that not many people know the differences between different tenure types.

Baseline study conducted for the Land-at-Scale project in Burundi. The study focused on Nyanza-Lac, a complex and densely populated commune with over 400,000 inhabitants. The study includes the results of a clustered survey with 435 respondents and of 12 focused group discussions involving the local administration, the Bashingantahe, women leaders, youth associations, and religious leaders.



Best practice 1:

To include the impact evaluation from the beginning in the project design and maintain constant communication between the evaluation and implementation teams

The GLTN and IFAD's Guidelines recommend getting agreement amongst project partners beforehand to incorporate an impact evaluation. This means including impact evaluations in the project budget, but also designing the intervention in a way that supports a feedback loop between the implementation of activities and the monitoring and evaluation of the project.

A helpful tool is the 'Learning loops', used in the LAND-at-scale program. They consist of having open and regular dialogues with partners, asking them to reflect on progress. This allows project managers to easily make adaptations in the program and provides for a learning experience for everyone involved in capturing the impact.

A learning loop is an ongoing process of gathering insights, analyzing outcomes, and refining actions for better results. It's about using past experiences to inform and improve future approaches, fostering continuous growth and success.

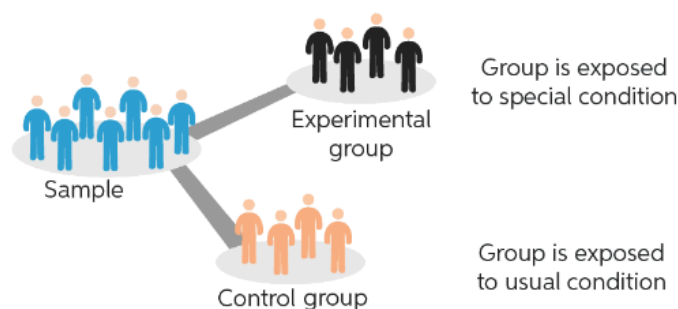


Here is an example that actually illustrates the absence of this best practice. From 2007 to 2010, a project funded by MCC was set out in Armenia to train farmers on how to use an irrigation system that was going to be built, and to evaluate the impact of this intervention.

Despite the procurement-related delays to build the irrigation system, the trainings and the evaluation proceeded as planned. Given that farmers received training before they could access the irrigation system, the evaluation could not test the effect of the training after the irrigation structure became available.

Photo: improved canals in Armenia.

The Irrigated Agriculture Project, supported by MCC's \$177.7 million Armenia Compact (2006-2011), was built on the idea that combining infrastructure with capacity building, enhanced credit access and market prospects would encourage farmers to transition towards more valuable agricultural production, resulting in amplified profits and income.



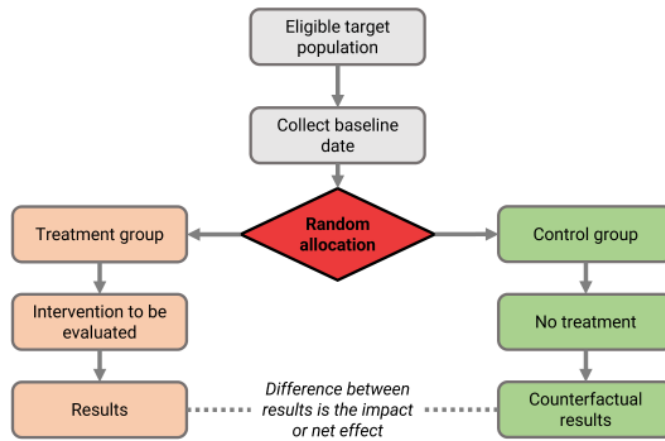
Challenge 2:

The inexistence of a comparison group consistent with the project design and the implementation requirements

Ideally, impact is assessed by comparing the group targeted by the project (called treatment or experimental group) and the group not affected by the project (called comparison, control or counterfactual group). However, it is not always possible or easy to find an appropriate comparison group.

The World Bank report [Impact Evaluation for Land Property Rights Reform](#) highlights that, if we are not careful, we might use a comparison group with quite different characteristics from members of the experimental group. You run the risk of incorrectly identifying a good level of impact by the project (or the lack of it) when the reason for the 'change' might be the initial differences between the two populations.

Evaluation in a project involves assessing its effectiveness and outcomes. Quasi-experimental tests are valuable in this context, especially in rural development. They compare a group that experiences an intervention with a similar group that doesn't. Figure adapted from [Chegg Inc 2022-2023](#)



Best practice 2:

To randomly assign the beneficiaries of the project intervention

The World Bank report considers that the ideal method for constructing a credible comparison group is to assign the project intervention randomly across households or individuals. Evaluation experts often claim that random assignment makes control and treatment groups equivalent on both observed and unobserved characteristics.

Yet, a word of caution.

Lisette Meij, Land-at-Scale Program Advisor, argues

"You cannot assign the beneficiaries of your project completely randomly either. When choosing beneficiaries for interventions, you automatically create "haves" and "have-nots". You create inequality. You need to be conscious of that in project design and implementation and have the

responsibility to make sure that this doesn't create extra conflict."



Lisette Meij, Program Advisor LAND-at-scale at RVO, the Netherlands Enterprise Agency

After all, evaluations deal with people, who bring different sorts of nuances that are very difficult, if not impossible, to control for.

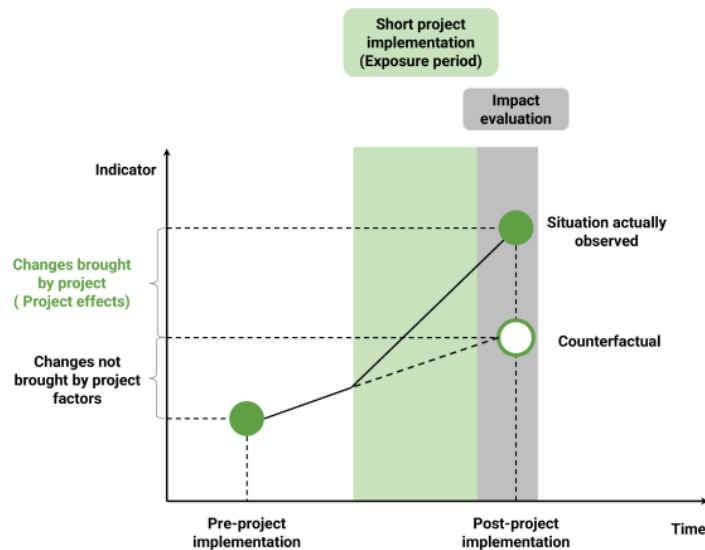
Projects whose beneficiaries are not assigned randomly might bring about an important social objective, even if they might affect the quality of the comparison.

These types of projects are common because for project stakeholders it is not easy to give up control over who receives the intervention. In those cases, it is important to have a careful understanding of the way projects are being targeted and to adapt evaluation methods accordingly, for example, by carefully thinking of survey designs and the timing of the data collection.

Another way to control for observable differences will be to collect as much data as possible about relevant variables that may lead to the expected outcome of the project.

The diagram on the right shows the workflow for an experimental evaluation. Random allocation is essential in development projects' impact evaluations. By randomly assigning beneficiaries to receive interventions or remain in control groups, it ensures unbiased comparisons. This

approach strengthens the credibility of outcomes, allowing for confident causal inferences about the project's effectiveness. Additionally, it addresses ethical concerns, controls for variables, and enhances the applicability of findings to broader populations, thus informing evidence-based policy decisions.



Challenge 3:

Lack of sufficient exposure periods for the evaluation

Exposure period is the time from the project implementation to the collection of data for the evaluation.

If the exposure period is not long enough it might not be possible to provide an accurate evaluation of the projects' impact because some outcomes might take time to manifest. For instance, in a project consisting in training farmers, it might take time for farmers to confidently apply what they have learnt and see the results from it.

IFAD's [review](#) of the effects of land tenure interventions in rural areas looking at 60 studies offers another example related to land titles. The lack of supporting evidence on land tenure links

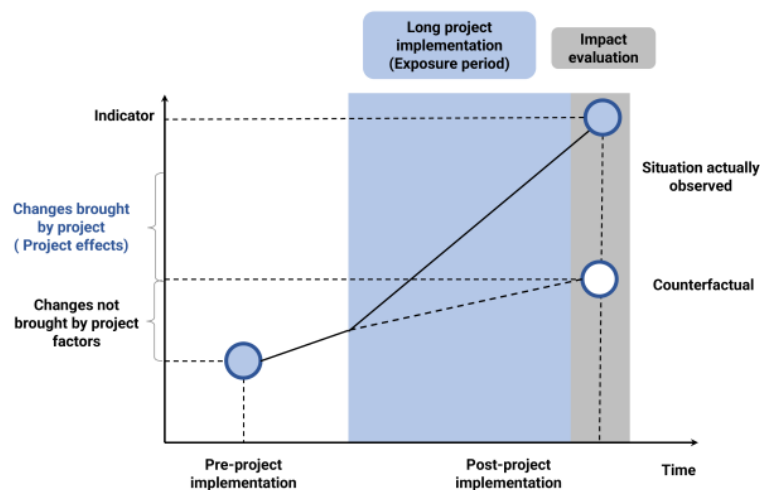
to agricultural productivity and income was related to the fact that the exposure periods for the evaluations ranged from two to six years and the titles were not usually issued until later.

Thus, too early evaluations could underestimate the project's outcomes and impacts and might be money potentially wasted.

A related challenge is the cost of doing long-term impact evaluations.

Often, project funds should be spent within a certain period, which might imply not having financial resources for the evaluation if the real impact of a land project happens five or ten years after its implementation.

The graph on the right illustrates the project implementation cycles and the progression of an indicator within both control and treatment groups. It underscores the challenge of measuring the transformative effects of a project when exposure times are brief.



Best practice 3:

Ensure that the timing of evaluations follow the program logic and assumptions

Following the GLTN and IFAD Guidelines, the exposure period should be informed by the project implementation timeline, the expected theory of change and related outcome timing. It is also advisable to do the data collection for the evaluation at least two years apart to give time for the realization of benefits, although, as already explained, some project outcomes might require more time to manifest.

When designing the evaluation, it is important to consider the timing of when key outcomes are expected to take place. That timing might depend on the project design but also on the context of the intervention.

For example, in a context of political, social or economic instability, or of high levels of conflict, project outcomes might be jeopardized or delayed. One way to face the lack of clarity on the timing of certain outcomes is conducting a tracking survey -rather than a full study- to measure the extent to which key outcomes are occurring.

The graph shows project implementation cycles and the evolution of an indicator in both control and treatment groups. In contrast to the previous graph, it underscores the necessity for longer exposure times to fully capture the transformative impact of a project.



Is an impact evaluation always a good idea?

Even if impact evaluations are necessary to understand the effects of land projects in the life of its beneficiaries, they might not always be advisable. The MCC, GLTN and IFAD calls project implementers and donors to be selective in deciding when to do impact evaluations and consider when a performance evaluation might be more appropriate.

Besides what has been already exposed, there are other considerations to keep in mind when thinking of embarking on an impact evaluation.

Even if methodologically speaking an impact evaluation might be feasible, it might not always be cost-effective. Conducting solid impact evaluations requires substantial resources and time, and the learning that the evaluation could provide may not always be seen as worth the required investment.

This decision will also depend on the purpose of the evaluation, which can be accountability or learning. Moreover, resources directed to evaluations often mean resources 'taken away' from on-the-ground interventions, which

potentially would reach more people and thus make a greater impact.

Other considerations are to have sufficient evaluation capacity and to have the support of the stakeholders. Lack of stakeholders' support, both internal from project managers or donors and external such as the local government, is key to deciding to pursue an impact evaluation.

Suggested citation

Zúñiga, Nieves (2023). The complexities of measuring land projects impact. Land Portal.

[Sign up](#) to receive Land Portal's data stories.

Design & Maps

Luis Baquero

Acknowledgements

Many thanks to Gemma Betsema, Senior Program Advisor at LAND-at-Scale program, Simon Mwsyhe, Land Tenure Specialist at UN Habitat, Alexandra Emerusenge 't Lam, Land Rights Specialist at ZOA, and Lisette Meij, Land-at-Scale program advisor for their generous time in responding to our questions.

This data story has been developed with the support of the LAND-at-Scale Program funded by The Netherlands Ministry of Foreign Affairs and managed by the Netherlands Dutch Enterprise Agency (RVO).

License

This work is licensed
under a Creative
Commons
Attribution 4.0
International license
(CC-BY-4.0)