

Working across languages

Target Malaria's approach to linguistics

Target Malaria carries out research in several different countries in Africa, Europe and North America, in multilingual contexts. In addition to working in English and French, Target Malaria teams also work in some of the other national languages within the countries where it operates.

In Uganda, in the regions where the project is present, Luganda is the most common language. In Ghana, it is Ewe and in Mali, Bamanankan. The situation in Burkina Faso is more diverse, with a number of different languages spoken in the areas around the project field sites. However, Dyula is most commonly used in these areas and is understood by nearly all who live there.

The importance of working in local languages

Target Malaria is committed to a "co-development" approach to its research, with local stakeholders playing an active role in helping to shape the project's activities.

At each phase of our technology development, we work closely with local communities to share information about our work and take into account their knowledge, expectations and concerns. Communicating regularly with local stakeholders also ensures that they can make informed decisions about project activities that impact them.

To ensure that engagement and consultation are meaningful, it is crucial that they be carried out using a language and terminology that most stakeholders can understand.



Consistent, accurate and accessible communication in local languages is therefore essential to our in-country work.

This can present a challenge in regions with varying levels of literacy and knowledge, particularly when it comes to the communication of scientific concepts (such as what genes are), especially complex ones such as how a gene drive system would work, or how gene editing is carried out, which is the foundation of our technology. A further layer of complexity is added by the fact that some of the terms used to explain our research and activities – such as the term "gene drive" – are relatively new so they are not yet fully established or easily translated into different languages.

Our linguistics work

In order to address these linguistic challenges, Target Malaria worked with communities living near project field sites in Burkina Faso, Mali and Uganda to co-develop a series of common glossaries in Luganda, Bamanankan, and Dyula, translating key concepts related to the project and its work.¹

These translations are now used to inform all outreach and engagement activities, and – because they were developed in conjunction with local communities – have been shown to

increase understanding of the project’s activities among local stakeholders. They have also been instrumental in the development of subsequent communication tools for the project, such as animated videos explaining our research activities, which include voiceovers in local languages.

Use of the glossaries is not limited to the stakeholder engagement teams, as many other in-country team members, including those working in our insectaries, or collecting mosquito samples in the field, as well as local volunteers are trained to use them. This ensures that communications are coherent and consistent. Since the development of the glossaries in Burkina Faso, Mali and Uganda, the team at the University of Ghana has also started a similar process, building on the lessons learned from this experience.

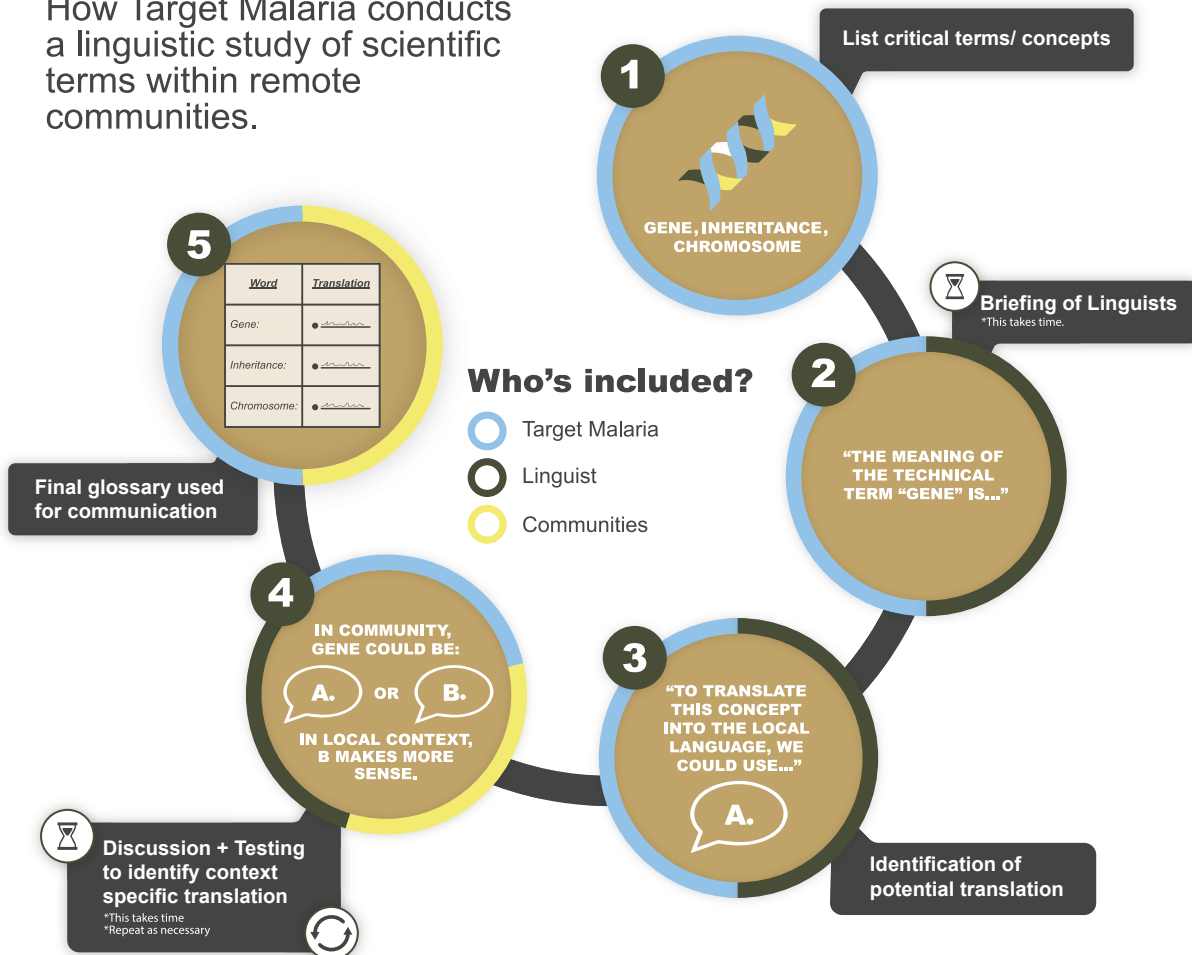
Developing glossaries

The development of the glossaries was an iterative and collaborative process with our stakeholders. Although there were small differences in the approach taken by each country team, based on the specificities of each local context, in each case the glossary was elaborated through a stepwise approach with input from both expert linguists/translators and members of the communities in which they were intended to be used. In keeping with Target Malaria’s principle of co-development, the opportunity of this process was taken to empower local communities to take part in the dialogue on innovative vector control.

The first step was for the Target Malaria teams to develop a list of key concepts in English or French, which underpin engagement activities and stakeholders’ understanding of the project’s work.

The Linguistic Process

How Target Malaria conducts a linguistic study of scientific terms within remote communities.



These ranged from topics related to:

- Genetics (DNA, chromosomes, gene drive),
- Entomology (larvae, swarming, insect collection),
- Laboratory research (biosecurity, containment, insectary),
- Engagement (community agreement, consent).

The next step was to partner with expert linguists/translators to develop initial translations of these concepts, recognising that translations do not necessarily consist of a single word, but often a descriptive statement or full sentence, to ensure that the intended meaning is conveyed accurately. During this phase, the project worked with a variety of partner organisations:

- In Mali, it was the **National Directorate for Non-Formal Education and National Languages** (a government institution with a role in documenting and teaching local languages),
- In Burkina Faso, the **Institute of Social Sciences** (a public institute dealing with local languages),
- In Uganda, the **Kampala Language Centre** (a private company specialising in translation and language training).

Experts from each institution were briefed on the project and its aims, before taking part in workshops with project members through which the first translations were developed.

These translations were then tested in discussions with focus groups including members from local communities near the sites where the project works, project members, and the linguistic/translation experts from partner organisations.

The glossaries were refined on the basis of these discussions, to ensure that they were clear to all involved. This step allowed to improve the translations by making them more appropriate to each local context and cultural understanding.

Target Malaria will continue to build on this linguistics work as the project evolves to make sure that our stakeholders understand each phase of our research and can share their views on our work, on their knowledge, expectations and concerns.

Examples of translation work done in Burkina and Uganda by Target Malaria teams

- In Uganda, the word gene was not translated directly in Luganda but rather through the expression “Endaga butonde esokerwako mu kutondawo ekintu ekirina obulamu” (meaning literally a unit of a DNA that is responsible to bring forth life).
- In Burkina, in Dyula, the concept of biosafety was translated by “Danfenw latanganan fεεεw - Danfenw faratikow natigeli” (meaning literally protection measures for living beings - a risk or danger prevention related to living beings).
- In Burkina, based on the concept of gene “Fεεn fitini dε lo, a be farisogo kεnε, a be yelemanin don farisogo ra” (literally something that is small, inside the body and that creates changes in the body), the concept of genetic modification was developed as “Farisogo cogo yelemanin” (the change of the way the body is).

- 1 Chemonges Wanyama, E., Dicko, B., Pare Toe, L. *et al.* Co-developing a common glossary with stakeholders for engagement on new genetic approaches for malaria control in a local African setting. *Malar J* 20, 53 (2021). <https://doi.org/10.1186/s12936-020-03577-y>