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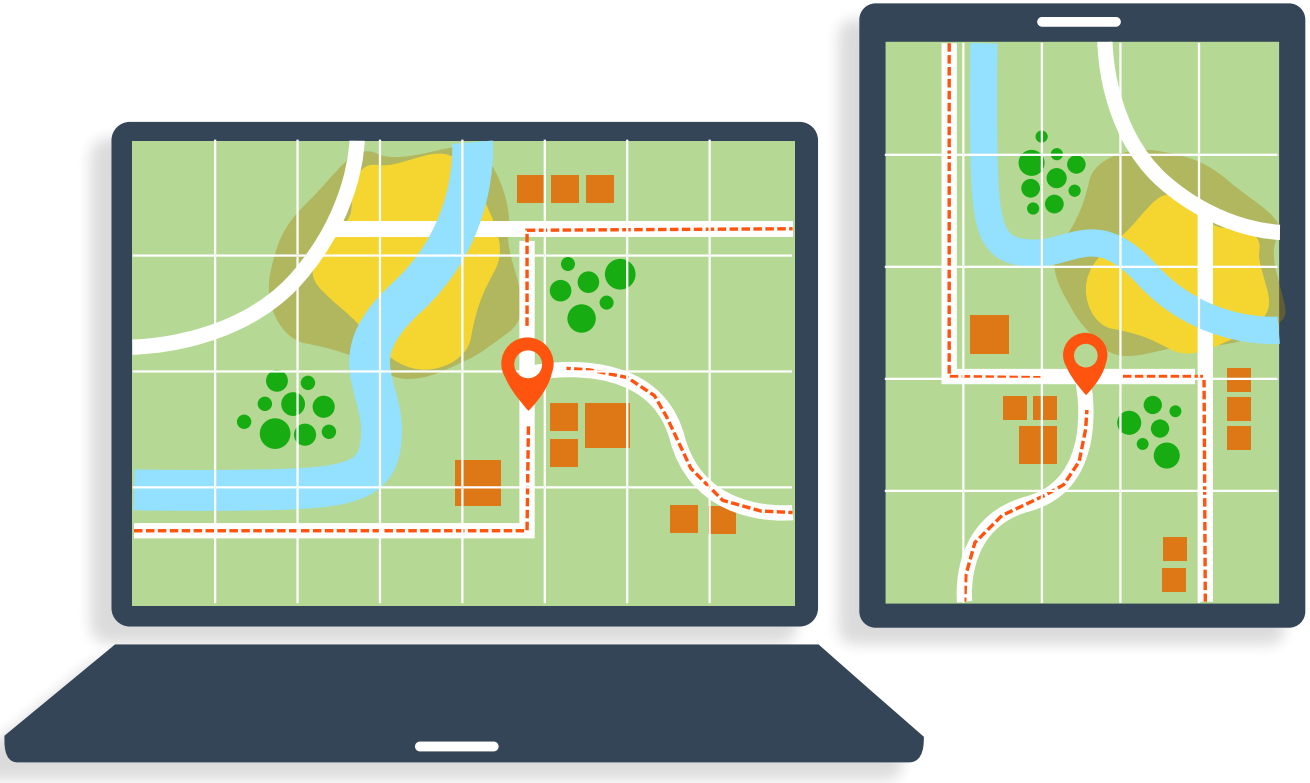
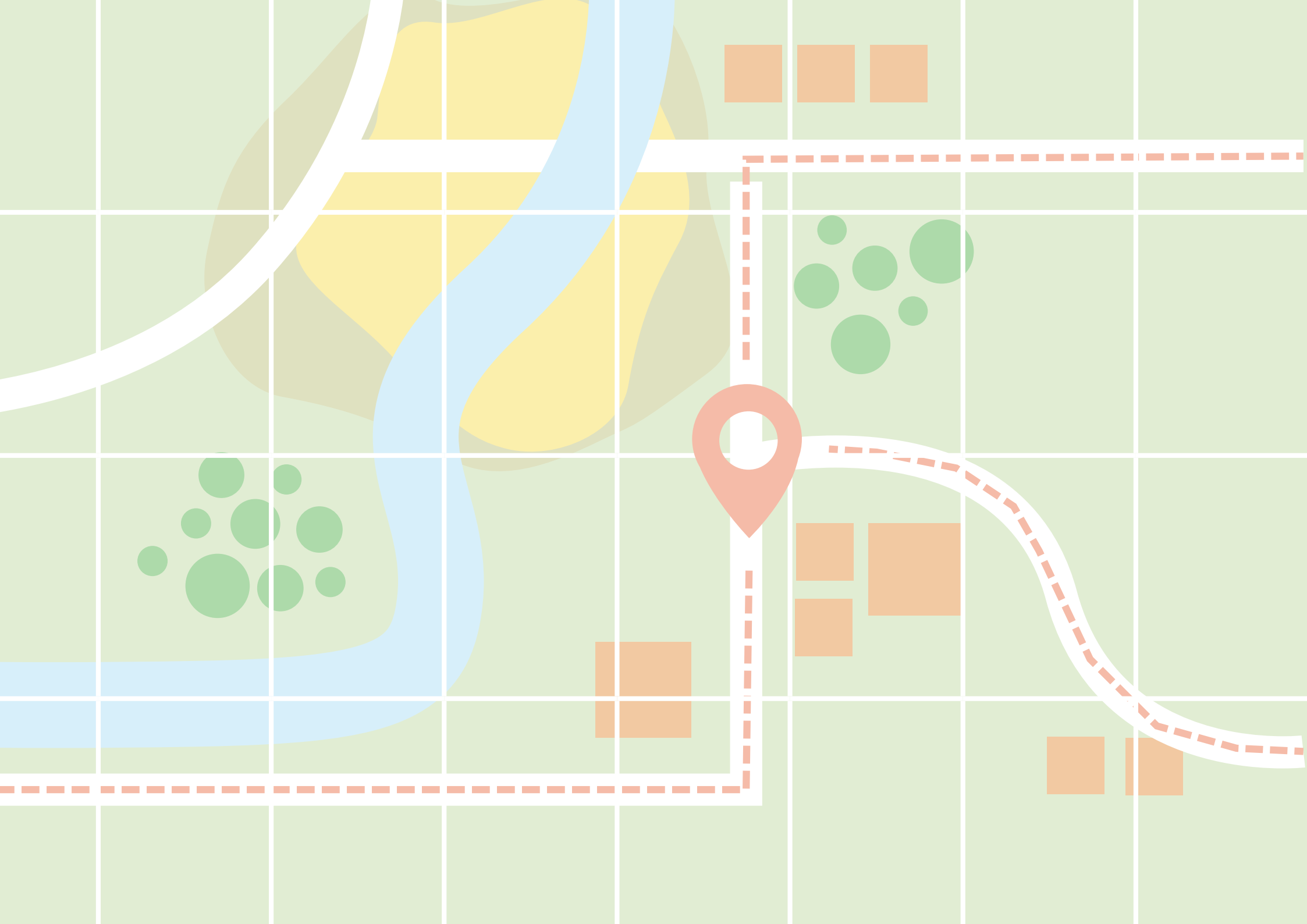


FAO Land Tenure Manuals 4

Community recording of tenure relationships using Open Tenure



FAO Land Tenure Manuals 4

Community recording of tenure relationships using Open Tenure

Anne Girardin, Amanda Bradley and Neil Pullar

FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS
Rome, 2017

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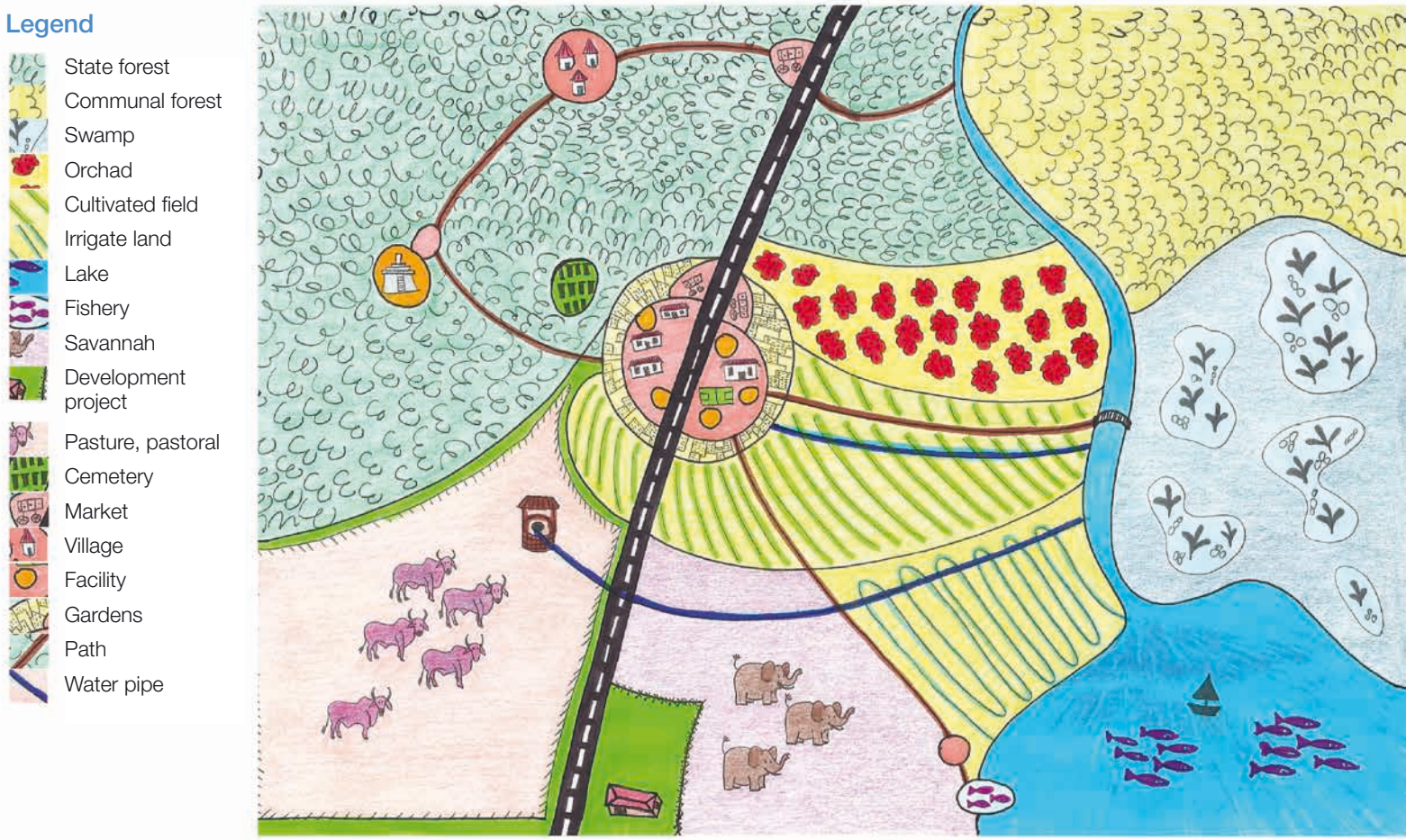

Figure 1 **The fictitious village of Gawa.**

1. Introduction

In 2012, the Committee on World Food Security endorsed the *Voluntary Guidelines on the Responsible Governance of Tenure of Land, Fisheries and Forests in the Context of National Food Security* (VGGT). These guidelines are intended to contribute to global and national efforts towards the eradication of hunger and poverty, based on the principles of sustainable development and with the recognition of the centrality of land to development by promoting secure tenure rights and equitable access to land, fisheries and forests[1].

In parallel, the concept of 'fit-for-purpose land administration' has arisen. It suggests that land administration should be designed to meet the needs of people and their relationship to land, to support security of tenure for all and to sustainably manage land use and natural resources. This perspective calls for a flexible and pragmatic approach rather than requirements imposed through rigid regulations, demands for spatial accuracy and systems that may be untenable for less developed countries[2].

Indeed, as of today, perhaps 75 percent of the world's population does not have access to formal land administration, including property registration. For many countries the formal land administration systems in place are costly, rigid, based on very precise land surveys and lengthy processes of tenure recognition. As a result, it is primarily the elite who has the possibility of secure tenure. To redress this imbalance, the VGGT and the 'fit-for-purpose land administration' concept are encouraging land administration systems to be more flexible, inclusive, participatory, affordable, reliable, attainable, and upgradable, thus opening the gate for the registration of customary and informal land tenure rights.

Responding to these same drivers, and as part of its work to support countries to implement the VGGT, the Food and Agriculture Organization of the United Nations (FAO) has developed the Solution for Open Land Administration (SOLA). This is open source software that aims to enhance transparency in land administration and improve the functioning of tenure systems at an affordable cost for developing countries. SOLA initially targeted support for formal land administration, and as a result

[1] FAO. 2012. *Voluntary Guidelines on the Responsible Governance of Tenure of Land, Fisheries and Forests in the Context of National Food Security Preface, Committee on World Food Security*, Rome. http://www.fao.org/docrep/016/i2801e/i208e.pdf

[2] FIG/WB. 2014. Fit-For-Purpose Land Administration. FIG Publications No 60, FIG Office, Copenhagen. http://www.fig.net/pub/figpub/pub60/figpub60.htm

utilized the international ISO 19152 Land Administration Domain Model (LADM) standard as the starting point for its database design. In late 2014, a new software application, Open Tenure, was added to the SOLA suite of open source software. Open Tenure supports a crowd sourcing approach to the recording of tenure relationships. It aims to assist communities around the world (and particularly in the developing world) to record their understanding of land tenure relationships affecting them and to facilitate self-management of community resources. Open Tenure runs on Google Android as well as Apple iOS tablets and is consistent with the Global Land Tools Network (GLTN) developed Social Tenure Domain Model (STDM) concept[3]. It requires minimal land administration and Information Technology (IT) expertise and skills to use.

[3] STDM is a 'specialization' of LADM that accommodates the recording of customary and informal tenure relationships.

2. How to use this manual

2.1 The focus of this manual

The purpose of this manual is not to learn about how to operate the software application, Open Tenure: that is described in the Open Tenure tutorial (within the software) and in various training presentations and documents[4]. **The main objective of this 'non-technical' manual is to prepare facilitators and community leaders to understand the concepts and necessary community-based processes behind Open Tenure**. Through this manual, facilitators will be prepared to introduce basic tenure concepts and to lead community discussions, in deciding whether or not to undertake a tenure relationship recording exercise. Should the community decide to proceed, the results of the discussions will form the basis of a Community Protocol to guide implementation of tenure relationship recording using Open Tenure.

The primary audience of this manual are the facilitators working with communities interested in using Open Tenure to clarify and record community tenure relationships. It is important that the facilitator understands both the concepts and community processes related to tenure as well as the technical aspects of how the Open Tenure software works.

In many communities there is already a good understanding among community members about tenure relationships; however, this is not the case in all communities. Another challenge is to describe tenure relationships in a way that can be related to the use of Open Tenure. This manual provides a framework to facilitate a consistent understanding of some of the key concepts underpinning tenure rights, thereby helping to define how Open Tenure should be used and configured for use in the community. This manual also aims to help communities design a Community Protocol to define how they will record tenure relationships[5].

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[4] Technical training materials are available on the Open SOLA website: www.flossola.org.

[5] FAO has published a Technical Guide addressing Free and Prior Informed Consent (FPIC) within the framework of the VGGT, which refers to the rights of local communities to participate in decision-making about issues impacting them. The drafting of the Community Protocol should incorporate FPIC concepts and principles. See **FAO**. 2014. *Respecting free, prior and informed consent: Practical guidance for governments, companies, NGOs, indigenous peoples and local communities in relation to land acquisitions*. Governance of tenure technical guide No. 3, Rome.

Associated with this manual is a series of MS PowerPoint presentations that can be used by facilitators in the training and discussion sessions. (Please refer to Annex 2 – Resource material).

2.2 About the facilitator

The facilitator(s) should be either a member of the community or a trusted individual who is familiar to the community and is skilled in participatory facilitation. He/she should also be computer literate and have map interpretation skills.

2.3 An overview of the approach to recording tenure relationships

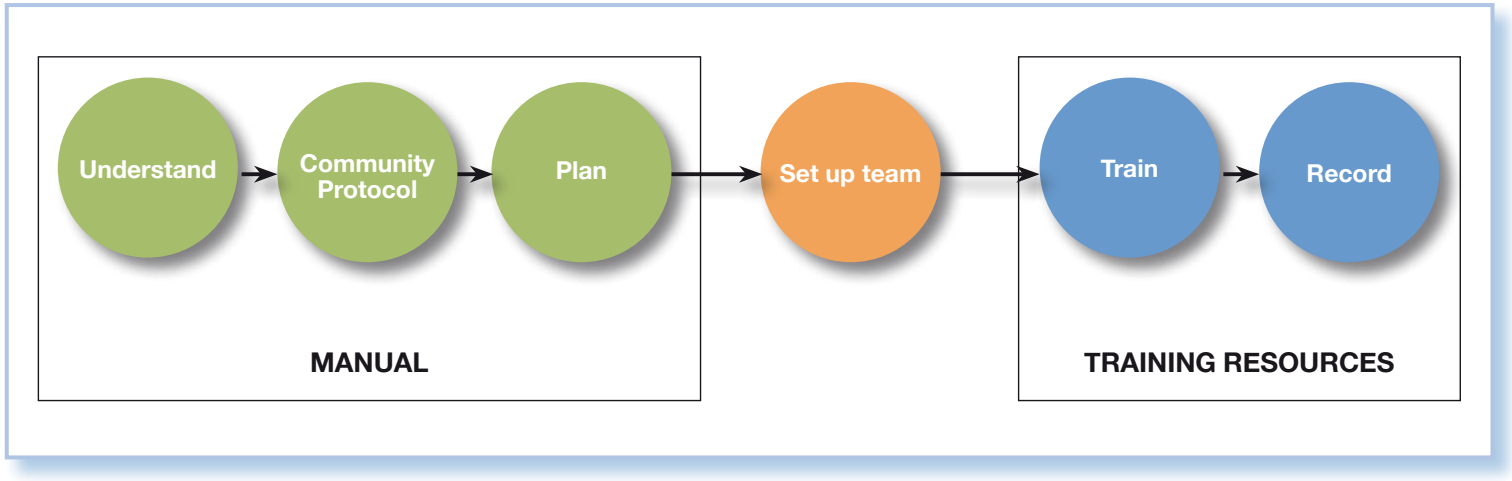


Figure 2 **Open tenure approach.**

When a community is considering using Open Tenure the first stage starts with the facilitator, community leaders and those community members who are likely to become 'Community Recorders' meeting together to work through the steps described in the next three sections of this manual. The objective is to obtain a common understanding of what is involved in recording tenure relationships and how to proceed with the process. The facilitation process is broken down into three sessions:

Session 1. Introduction to key land tenure concepts

Through a story about the fictitious village of Gawa and an explanation of some important tenure concepts, the facilitator will gain insight into how the community members view the tenure arrangements for the areas that they live in, use, or consider important. In addition, community members will describe how they use these areas, how they organize them to make a living, how they transfer their rights and responsibilities to the next generation (or others), how they record or remember this information within the community, and how they manage disputes. Through a series of related examples, the facilitator and other participants will gradually gain a common appreciation of local concepts of tenure relationships, including the identification of important rights, restrictions and responsibilities associated with land, forests, fisheries and other natural resources, and the relationships with groups or individuals within the community. If the community decides to proceed with the process, the local understanding of these concepts of tenure relationships can be incorporated in the Community Protocol.

Session 2. Getting started with Open Tenure

In this section, the facilitator outlines the Open Tenure recording process and facilitates a discussion on potential benefits and risks for the community. Next, he/she describes key concepts such as: what a 'claim' is, who records a claim, how a claim is confirmed by the community, and how disputes are dealt with. The facilitator also explains elements of the Open Tenure technology such as: what a tablet and a community server are, how data are stored, and how claims and confirmed tenure relationships are displayed and made accessible to the community. Ideally, this step should include some hands-on training in the use of Open Tenure.

Session 3. Plan the recording of tenure relationships

In this session, the facilitator assists the community to identify candidates corresponding to each role involved in the recording (recorder, reviewer etc.). The community identifies the different locations where each community recorder will work, the equipment required, and the arrangements that need to be made. The community also decides about how to inform and consult other community members regarding recording the tenure relationships, including consideration of expectations, preparations needed, and potential risks and benefits.

The purpose of this third session is for the community to understand the nature of recording tenure relationships and to obtain an appreciation of the effort and the resources required.

On the basis of the three community discussions, the community should then be fully informed and able to decide whether to proceed with tenure relationship recording. Should the decision be made to proceed, a draft Community Protocol should be prepared as soon as possible.

3. Introduction to key tenure concepts

3.1 Objectives for this section

Through a story about the fictitious village of Gawa, an explanation of some important tenure concepts and a series of brainstorming exercises (contained in Training Module 5.0; refer to Annex 2 – Resource material), the facilitator will be able to:

- describe how community members view the tenure arrangements for the areas that they live in, use or consider important;
- describe how they use these areas and have organized them to make a living;
- describe how rights and responsibilities are transferred to the next generation;
- describe how disputes are managed;
- build a common understanding of local concepts of tenure relationships including the identification of important rights, restrictions and responsibilities associated with land, forests, fisheries and other natural resources and the relationships with groups or individuals within the community;
- discuss the potential risks and benefits of Open Tenure and reach consensus with the community on whether or not to proceed.

3.2 Yuna's story

My name is Yuna and I live in the village of Gawa. The village is now located along the main road but before it was located near the sacred temple. We have two neighbouring communities: one on the other side of the river, the other one adjacent to the farming area.

With my family, we live in a house that my dad built last year; it has a yard and a storage room. It is next to the barn that we rent for our domestic animals.

My dad grows some crops on land parcels that he and my mom inherited from their respective families. My mom takes care of the animals. My oldest brother works at the communal orchard or at the fish farm. My second brother is good at hunting and fishing in the river. My two elder sisters sell our products at the market.

Every morning, I go to school. In the afternoon, I help my grandmother and my sisters at the craft factory. After work, my friends and I go to fetch some water. Once a week, we go to the temple. Last week I was sick and I had to be treated at the health centre.

At school, my best friend is Sam. His family settled in the middle of the forest on our community land. They grow crops for themselves and their cattle as well.

Yesterday, the head of the community said that an agricultural investment project is coming. Some of our land is required for the project. My dad has said we must receive compensation for the land we will lose. Mom is concerned that runoff from the industrial agricultural activities will pollute the drinking water or affect the supply of our own water for irrigation. Sam's parents are afraid that some of us will not be given land elsewhere in compensation and will be forced to move. The head of the community said that we needed to document our land in order to protect our rights. The community and Sam's village agreed.

3.3 Tenure is about what is possessed, how it is possessed and how it is used

Yuna's story shows that the community:

- has a history (they are most probably indigenous and they used to live near the sacred temple);
- has a territory, and within that, boundaries (the river, the crops);

- has a leadership structure;
- is organized for living, farming, fishing, making and selling products, etc;
- has conventions on how land is transferred as a result of inheritance or for other reasons (Sam's village) and that such transfers are common knowledge within the community;
- is concerned with protecting its land (cautious about potential pollution);
- expects there to be disputes about the land in the future and recognizes the value of documenting the current situation.

This information provides a clear indication that this community considers itself to be the owner of the land and wants to protect it for future generations. It is also clear that the community land is used, occupied, and owned in different ways by different people.

Key concepts

Tenure relationships acknowledge that '*parties* can have *rights, restrictions and responsibilities* over *properties*'.

Definition of properties

Although 'property' is a term that comes from formal land administration, it can also be applied in a community context. The essential elements of a property are that it relates to a right or responsibility associated with a natural resource (such as land, forests or fisheries) and an area defined by boundaries. A 'property' may also include other co-existing rights, restrictions and responsibilities that exist within the boundaries of the 'property' or may be associated with the 'property'.

The most common form of right defining a property is ownership, but there are many other types of rights, particularly in the context we are now discussing. Other examples are the right to farm a particular crop, the right to collect firewood, the responsibility to maintain the integrity of a place of spiritual importance or the right to allocate user rights within a community.

Definition of parties

Parties are usually individuals or groups of community members, as well as the government, a company or a religious organization.

Definition of rights, restrictions and responsibilities

Property ownership is often described as a bundle of rights and ownership may be of some or all of these rights in a series of associated rights, restrictions and responsibilities. The right of ownership is almost always constrained in some way. Some form of restriction on the ownership right exists, often through the exercise of government authority (e.g. to take land for public works) or a communal responsibility (e.g. not to undertake activities that pollute and affect neighbours). In the context of tenure, the 'bundle of rights' therefore consists of:

- rights, e.g. ownership, right to crop, right to log, right to access;
- restrictions, e.g. developing land requires permits, certain activities may be allowed or prohibited, land parcels may be taken for public purposes;
- responsibilities, e.g. leave a path for the cattle to access the river, pay taxes, protect nature.

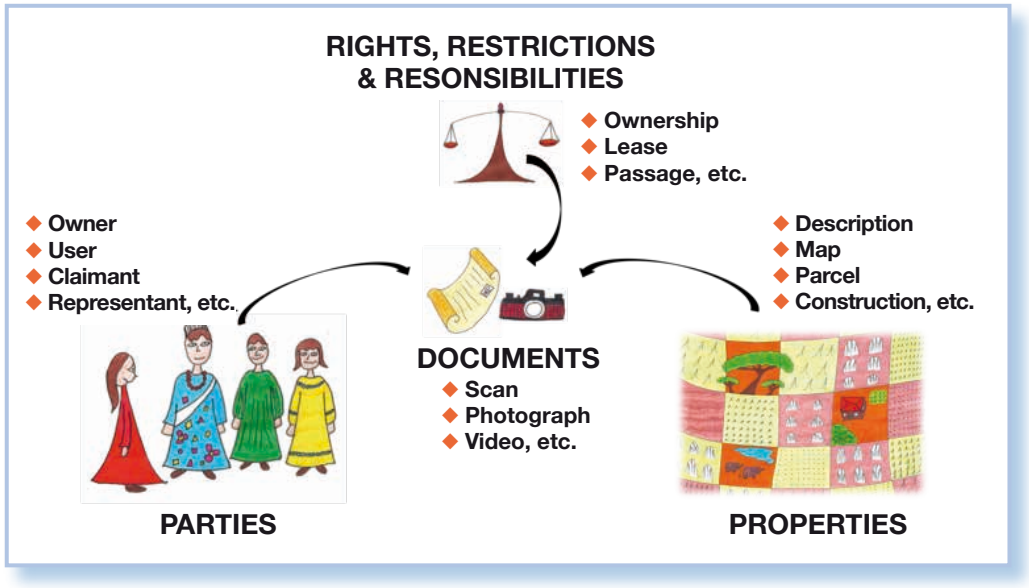


Figure 3 Tenure relationships.

Gawa villagers' perceptions of tenure rights, restrictions and responsibilities on their community land

Here are a few examples of how the Gawa community perceives its ownership and use of the land.

In our community:

1. *Most of the land belongs to the community. Only the forest reserve belongs to the government.*
2. *The villagers are mostly farmers or herders. Each farmer owns a few parcels. Herders use the pastoral land for raising their cattle.*
3. *At the orchard, each family has designated trees for collecting fruits. The trees belong to the community but each user family has to maintain the ones they use.*
4. *It is permitted for villagers to hunt in the forest reserve if the government grants a permit.*
5. *It is permitted for villagers to fish in the river.*
6. *The villagers are allowed to extract stones from the local quarry to build their houses.*
7. *It is forbidden to do anything on and around the sacred temple; the community strictly protects it.*
8. *Depending on the season, we use the well or we go to the river to collect water. We take the trail that passes through the pastoral land to go to the river and fill up our water tanks.*

3.4 Community and family relationships, transfers of rights and dispute resolution

Inheritance

Community members generally expect to be the main beneficiaries of the community's resources. They are connected to the land historically and have the willingness to maintain it for future generations. In this regard, the community feels that the land belongs to them and they are responsible for it.

Typically, communities have always created ways to transfer tenure rights by inheritance according to certain rules, in order to protect the community's resources and family interests. As babies are born, children grow, adults establish families and pass away, sons and daughters, widowers, sisters and brothers and others inherit properties.

Many communities around the world use different rules for inheritance and to transfer tenure rights to future generations. Examples of these inheritance rules are:

- All siblings are equally entitled regardless of gender.
- The eldest or youngest child inherits.
- The child considered the most able inherits.
- The eldest or youngest child inherits a greater proportion.

These transfers between family members are normally very simple: they follow well-established traditions that are well known within the community and are not written down. If a dispute occurs, the head of the community, together with the family and the community council, will mediate to try to find a solution to the dispute.

Transfers through transactions

Recently, given the growth in population and development worldwide, humanity is more mobile and the pressure to acquire land has increased. Two strong drivers for land acquisition are:

- government interests, e.g. infrastructure development, nature protection;
- private investments, e.g. large-scale farming, industry.

Land acquisition for these purposes is complicated because it requires a clear knowledge of the property rights to be transferred, an assessment of the monetary value of the property to be acquired, and adherence to relevant laws and regulations. Such transactions are complex and it is not practical to rely on people's memories to record all the details concerning this type of

transfer of property rights (as was the case in the past). For this reason, land acquisitions are normally documented in order to clarify the terms of transfer of rights, and to limit disputes between community members and external parties. If a dispute occurs, courts will normally adjudicate.

The pattern of rights transfers in the Gawa community

Here are a few examples of how the Gawa community transfers land to future generations within the community or to external parties.

In our community:

1. *Inheritance rules are clear and simple; knowledge of property transfers is an oral record, transmitted by the spoken word from parents to children. Sons and daughters inherit equally from their parents; women and men have the same rights in terms of inheritance.*
2. *Each family within the community should have enough land to grow crops and feed its members. If a family is in need of farmland, the head of the community and the community council have the right to adapt the rules and provide a piece of communal land to the family in need.*
3. *The communal land cannot be sold to a particular person even if he/she is a community member. The use of the communal land is transferred by inheritance following the same rules as for privately-held land.*
4. *Settlers are allowed to build a village in our community if they obtain an agreement from the community and pay rent. If they need farmland, they can request part of the communal land from the community and pay rent. If the community cannot provide communal land, they may purchase land from community members, if it is available.*
5. *It is possible to buy land from a community member, but in this case a document has to be drafted between the buyer and the seller and filed with the head of the community.*
6. *If two of our community members get into an argument about some land, the head of the community together with the community council resolve the issue. If they cannot resolve the issue, the case has to go to court.*

3.5 Brainstorming exercises

In Module 5.0 of the resource material associated with this manual (refer to Annex 2 – Resource material) there are a series of brainstorming exercises to be used by the community facilitator following the discussion of Yuna's stories about her community, Gawa.

These exercises cover the following topics:

- describe your community;
- define the boundaries of the community;
- name the key parties that have property rights within the community;
- identify the bundle of rights that exists in your community applied to land,fisheries and forests;
- describe the families' relationships and the inheritance practices;
- describe the land dispute resolution process;
- discuss potential risks and benefits of implementing Open Tenure in the community and reach consensus on whether or not to proceed.

Consideration of potential benefits and risks in decision-making

In the early stages of the process, the facilitator should introduce the potential risks and benefits of engaging in a tenure recording exercise using Open Tenure. Some possible benefits include:

- a better shared understanding of where resources are and who owns and manages them;
- the possibility of solving disputes within the community through the process of implementation;
- more straightforward processes for inheritance of land within the community;
- laying the foundation for eventual formal land registration;
- building community solidarity and making it more resilient to external threats.

At the same time, risks should also be considered. These could include such things as a lack of sustained commitment to the process, emerging new conflicts, and opportunity costs related to the time needed to record tenure relationships. The facilitator should assist the community in thinking through potential risks and benefits that could emerge. The community should decide on its own if the benefits outweigh the risks and if they would like to proceed with the tenure recording process. They may also consider ways of reducing risks and maximizing benefits. Here are some key questions to assist in the facilitation of this discussion:

1. Would Open Tenure be useful in the community? If so, how?
2. What would the community do with the results?
3. Who would benefit from the recording of tenure relationships?
4. How could management of land and resources be affected by the recording of tenure relationships?
5. What might go wrong in implementing the recording of tenure relationships?
6. What disputes might arise?
7. Who might be excluded from the process and what could be done to ensure that they are actively involved?
8. Is there a risk that the Open Tenure effort will be short term and not sustained?
9. What human and financial resources are needed and are they available?
10. Who should be involved or consulted on the decision to engage with Open Tenure?

At the end of this discussion, the community should have a better sense of risks and benefits associated with Open Tenure. At the same time, consensus should develop regarding whether or not the community wishes to proceed with the process of recording tenure relationships. The facilitator should encourage the community to articulate whether it is ready to move forward or not, or if more time and consultation (possibly with other community members) is needed. The training should proceed only after the community has provided its consent for engagement with the process.

4. Getting started with Open Tenure

4.1 Objectives for this section

This section has two main purposes.

First, for participants to be able to describe some of the key concepts involved in recording with Open Tenure, including:

- What is a claim?
- Who will we record a claim?
- How will the community confirm a claim?
- How will disputes be dealt with?

Second, for participants to understand the technical aspects of Open Tenure, including:

- What is a tablet?
- Why are we using tablets?
- What is a community server?
- How is the data stored?
- How will claims be displayed and how will these records be made available?

4.2 What is a claim?

A claim is a set of information describing a property that a community member would like to record and have confirmed by the community, including a right or responsibility in which they are the right holder. A claim includes the following information:

- the type of right(s) claimed (ownership, lease, right to crop or log, etc) and other related details such as land use, property name, when the right was given;
- right holder details (names, date of birth, gender) and, in the case of a claimant, right holder contact details;
- a map of the boundaries of the property based on an aerial or satellite image and GPS positions;
- scanned images of any document supporting the claim;
- digital photos of the right holder and the property.

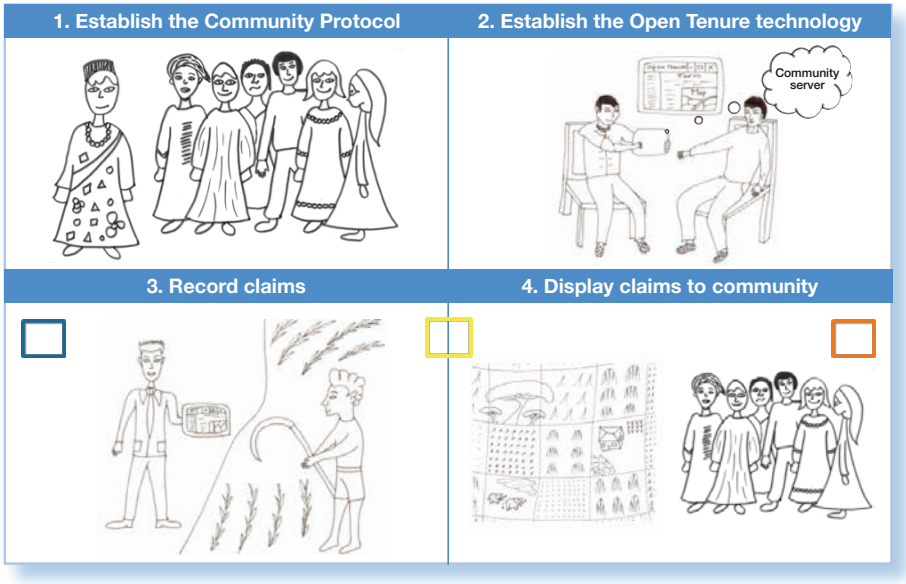
The information recorded by the Community Recorder in Open Tenure is based on the details provided by the claimant. Open Tenure offers a process by which the community can verify the information and recognize tenure relationships.

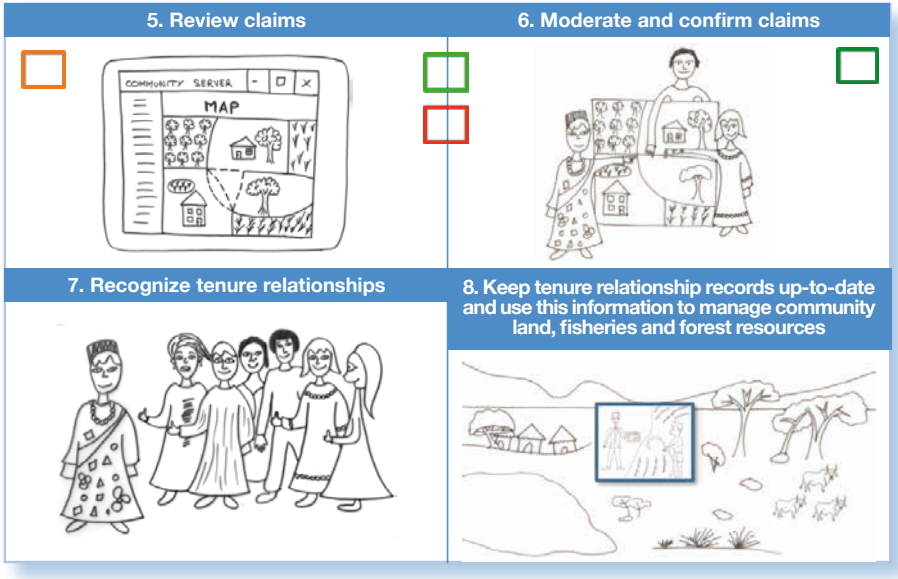
4.3 Open Tenure in 8 steps

This section outlines the 8 steps involved in implementing Open Tenure in a community, starting with the establishment of a Community Protocol, through to the time where the community has created an inventory of its tenure relationships and is keeping those details up to date.

There are typically four key roles in recording tenure relationships using Open Tenure:

1. Technologist
2. Community Recorder(s)
3. Secretary
4. Moderator


1. Establish the Community Protocol
2. Establish the Open Tenure technology
Community server
3. Record claims
4. Display claims to community


5. Review claims
COMMUNITY SERVER
MAP
6. Moderate and confirm claims
7. Recognize tenure relationships
8. Keep tenure relationship records up-to-date and use this information to manage community land, fisheries and forest resources

Communities are encouraged to include women and men in these roles, especially as Community Recorders who interact directly at the household level. These roles are detailed within the following descriptions of the 8 steps.

Step 1: Establish the Community Protocol

Led by: the Moderator

The process of establishing a Community Protocol should be based on the understandings arising from the initial community discussions. These discussions should cover key tenure concepts, getting started with Open Tenure, and planning for recording tenure relationships; they should then culminate in a decision on whether or not to proceed.

The facilitator should support the Moderator and other community leaders in drafting a Community Protocol. In doing so he/she should use the findings of the discussions, including the brainstorming activities (Section 3.5 Brainstorming exercises). The discussions should have identified:

- the community's understanding of key tenure characteristics;
- how the recording of tenure relationships should be carried out in this community;
- what commitments are made by individual community members to support the tenure relationship recording effort.

A Community Protocol should describe:

- the responsibilities of the key roles of Community Recorder, Secretary, Technologist and Moderator (and Moderation Committee);
- who will take on these key roles (in an Annex to the Protocol);
- preparatory tasks to be completed before recording starts (and by whom);
- the initial focus of tenure relationship recording (communal land, agricultural land, house sites etc) and which part of the community's land will be targeted first;

- how tenure relationship recording will be implemented. If the regular Open Tenure approach to recording is accepted, when will the public display period begin for the first area recorded, and for how long will recorded claims be displayed before being considered by the Moderator (for community recognition status)?
- the significant tenure relationship recording events and when are they planned;
- how community members will be involved, and how they will find answers to questions that might arise concerning recording tenure relationships and confirming 'community recognition' of recorded tenure relationships;
- the rules that should guide the Moderator (and moderation committee) in confirming 'community recognition' of tenure relationships, or in resolving disputes.

The Community Protocol should be used to inform community members about tenure relationship recording in their community. Widespread awareness within the community about the process and activities associated with recording tenure relationships is essential. The community needs to be reassured that this exercise is in its best interests and that it does not undermine or change the status of current tenure relationships. The benefits identified during the initial discussions concerning Open Tenure need to be highlighted; similarly, reassurances and explanations need to be given for any concerns identified.

The Moderator

The Moderator is a senior person from the community who either works alone in this role, or as chair of a committee comprised of community members of both sexes who have a good knowledge of land ownership and tenure arrangements in the community. The Moderator must be a person whose decisions on claims will be considered wise and fair.
The Moderator has the responsibility to:

- lead the discussion on the Community Protocol to be followed, so that there is widespread awareness and acceptance within the community of the forthcoming recording process, as well as the benefits and responsibilities of participating;
- modify and refine the initially recorded claim details to reflect a dispute resolution or to reflect the wider community's appreciation of tenure rights for a particular claim;
- confirm that a claim has been 'moderated' and can be considered as recognized by the community.

The Moderator has a key role in resolving any disputes and in confirming the community's view that a claim as described on the Community Server is acceptable and reflects the wider community's view of the tenure relationships concerning a particular parcel of land.

Step 2: Establish the Open Tenure technology

Led by: The Technologist
Open Tenure is a software application for collecting tenure relationship data in the field, including the mapping of property boundaries. Some equipment is necessary for the collection of field data related to tenure relationships.

The tablet
A tablet is a small mini computer with a flat screen slightly bigger than a smartphone. The Open Tenure application runs on the tablet and allows the Community Recorder to:

- download base map imagery and existing claims from the Community Server for areas where the community is planning to record claims in the coming day or two;
- record details about claims, ownership and other characteristics important to the community;
- map each claim by picking out boundary corners on the downloaded base map imagery, or using the position determined by the built-in GPS within the tablet;
- attach images of documents supporting a claim, and photos of the owners and the property, using the built-in camera in the tablet;
- upload captured claims to the Community Server for review and consideration by the community's Secretary and Moderator;
- upload images to the Community Server of further supporting documents for an uploaded claim;
- capture and upload to the Community Server a challenge to an uploaded claim.

Each Community Recorder will need one tablet. The tablets need to be looked after very carefully. At the end of each field day they must be charged for the next day of fieldwork.

The Open Tenure software application is available for two different categories of tablet: the tablets produced by a range of manufacturers (such as Asus and Samsung) which use the current version of the Google Android operating system, and the Apple iPad tablets which use the iOS operating system.

The aerial or satellite imagery

Aerial or satellite imagery provides the background base map layer within Open Tenure that helps the Community Recorders to outline the boundaries of the property being claimed by a community member. Aerial or satellite imagery is also used as a background base map layer in the Community Server, once claims have been uploaded.

Aerial or satellite imagery is a collection of photographs of a designated area taken from the air or from space. A coordinate reference system is incorporated into the image so that it can be used along with GPS coordinates. Sometimes, instead of satellite imagery, a collection of photographs taken from an aeroplane or a drone (orthophoto) is used as the background base map layer within Open Tenure.

It is important that the aerial or satellite imagery is clear enough so that features on the ground that could help identify property boundaries can be seen easily in the image. The best aerial or satellite imagery is what is called 'high resolution', where the image is sufficiently sharp and clear so that boundary corners can be located within a metre of their physical position.

Other factors that need to be considered when selecting aerial or satellite imagery are how long ago the imagery was taken, whether there was a clear sky and no cloud cover, and whether or not there was foliage obstructing the visibility of features that are property boundaries.

When Open Tenure is connected to the Internet it is possible to use publicly available aerial or satellite imagery such as those that are available from Google Earth. However, in some situations the publicly available images are not high resolution images, the aerial or satellite images are too old, or the rules concerning their use mean that they are not suitable for use with Open Tenure (for instance they may forbid the use of the imagery when Open Tenure is offline from the Internet). In this case it is necessary to acquire aerial or satellite imagery for the community privately and then to make it available to Open Tenure users through the Community Server.

The Community Server

The Community Server is the computerized system where:

- existing claims and community confirmed property records are stored and are available to download to Open Tenure tablets;
- claims and challenges to claims are uploaded from Open Tenure;
- claims are displayed, reviewed, moderated and confirmed or rejected by the Open Tenure Secretary and Moderator;
- community property records can be viewed by community members;
- aerial or satellite images can be stored and made available for viewing and download on Open Tenure.

The Community Server can be established on the Internet as a 'cloud server', in which case there would be no need for the community to buy a computer and maintain it. All the system maintenance is provided by a supplier and there is a monthly fee. It can be accessed by any user who has been authorized with a special user account and password and has a connection to the Internet.

Alternatively, the Community Server can be established on a desktop (or server) computer that is owned and maintained by the community. In this situation, access to the Community Server by any user is only possible when they are in the same building as the Community Server computer and are able to connect to it by wireless or cable. Such an arrangement is dependent on a reliable power supply.

The setting up of the Community Server is the most technically demanding task associated with the use of Open Tenure. The Open Tenure Technologist's role is critical, and the community may need to look for assistance from outside the community. Fortunately, setting up the Community Server only takes a couple of days and can be done remotely. At the moment, subject to the availability of resources, FAO has been able to help pilot communities with this task and in the future, civil society organizations or development assistance projects are expected to help.

If the community is interested in seeing how a Community Server looks and works, interested parties can visit the test community server (established to test the SOLA Community Server software) at http://demo.opentenure.org. This community

server covers a fictitious community on part of an island in New Zealand; visitors can view the data that has been collected and see how a community server functions.

The boundary of the community area of interest

In the facilitated discussions, the facilitator and the community members will have discussed how the community would determine the boundaries of the community land and the conclusions will be documented in the Community Protocol. Those boundaries then need to be mapped and recorded in the Community Server in order to be displayed in the Open Tenure map display for field recording.

There are different approaches that can be followed to map the community boundaries. In some cases the community land will already have been mapped and in this case a scanned copy of the paper map should be given to the Technologist to create a digitized version of the map within the Community Server.

Another approach is for the Technologist or Secretary (see the next sections of the document) to use Open Tenure to map the community boundaries using both the aerial or satellite imagery and GPS positions.

The Technologist

This is a role that is important at the time Open Tenure is set up. It may need to be initially taken on by someone from outside the community if there is no one within the community with the necessary technical skills. To fill this role, the community may need to look for someone from an NGO or from a development assistance project that they have worked with. However, once Open Tenure has been set up and field recording is underway, this role may be merged with the Secretary role.

The Technologist has the following responsibilities:

- train the community Open Tenure team in the use of the Open Tenure and Community Server software;
- configure the Open Tenure software for use in this community;
- set up the Community Server (on the cloud server or local desktop computer);
- load the base map imagery;

- map the community area of interest and load that map into the community server;
- support the Community Recorders, Secretary and Moderator in the use of the Open Tenure and community server software;
- ensure the tablets and any other equipment used with Open Tenure are functioning properly;
- back up the database regularly.

Step 3: Recording claims

Led by: the Community Recorder(s)

Informing the community members

Community members need to be advised how they can prepare for Open Tenure recording. For instance, community members should talk with their neighbours and agree where their common boundaries are, clarify any joint ownership situations, and prepare supporting documentation. It is important to identify the Community Recorders at an early stage.

Another critical topic is informing community members about the options available to them if disputes arise and how the dispute resolution process will work.

The Community Protocol should be a useful resource to refer to in this step, as it records the community-agreed understandings of how the recording of tenure relationships should proceed. At this stage, the details of particular interest from the Community Profile are:

- what lands and what details will be captured;
- how the right holders should be prepared (documentation, boundary demarcation between neighbours, ID card, etc);
- how the tenure relationship details will be displayed after field capture;
- how these details could be amended or challenged in the case of disputes.

A community awareness effort should continue throughout all steps in the recording process, particularly when a new step (such as public display) begins, or field recording begins in new areas within the community.

Recording claims

When the Community Recorder comes to record a property, he/she will have already downloaded from the Community Server to Open Tenure on the tablet any existing claims, and the aerial or satellite image.

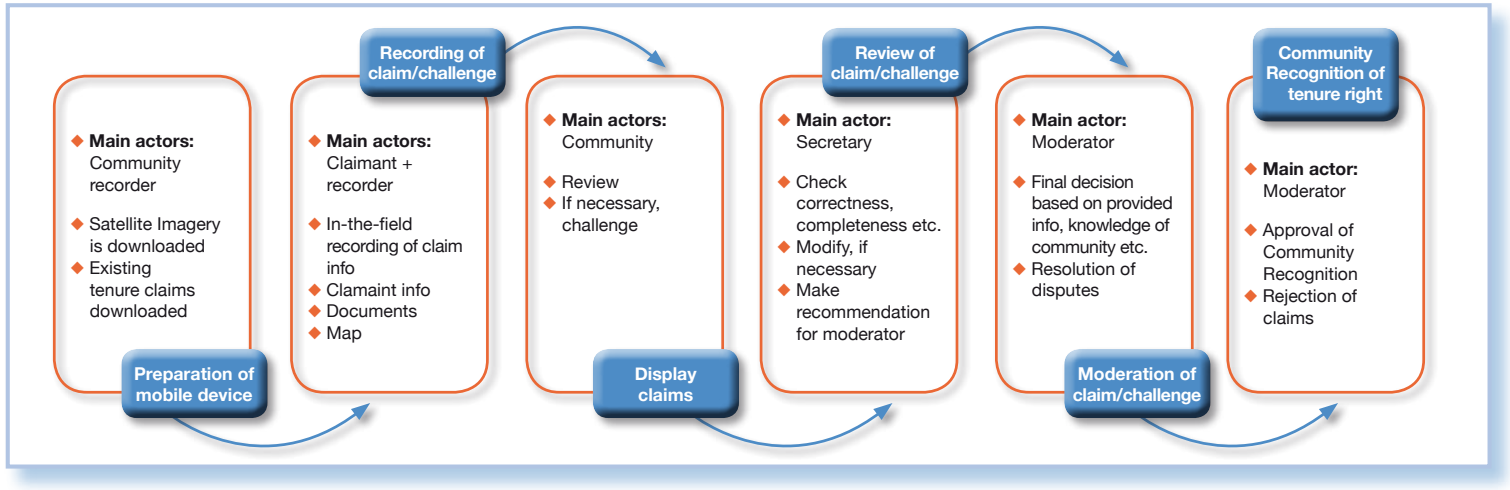


Figure 4 **Field recording process.**

The claimant will need to describe to the Community Recorder what sort of property right he/she has, how he/she obtained this right, who the neighbours are, and how the property is used. The claimant will also provide his/her basic personal details and those of any co-owners, such as spouses. If the claimant(s) is willing, it is recommended that the Community Recorder take his/her photo, along with a photo of his/her identity card if available.

Once those details are recorded in Open Tenure, the Community Recorder asks the claimant(s) to describe the boundaries of the claim. In many cases the claimant can point out the boundaries on the map on the tablet. In other cases the Community Recorder may suggest walking around the boundaries to assist with the mapping of the claim. Sometimes the Community Recorder may take photos to add to the claim.

It is best if the neighbours are present and agree with the Open Tenure mapping of their common property boundaries. Community Recorders should take care in mapping these boundaries to ensure there are no ambiguities, such as overlapping boundaries, that may lead to a dispute in the future. The Open Tenure mapping should result in a 'clean' map. If the Community Recorder comes across any disagreements between neighbours concerning property boundaries, he/she should try to solve the issue in the field. If the issue cannot be solved this way, the Community Recorder should record the disagreement by mapping both interpretations of the boundary and making one of the claims a 'challenge claim', so that the Secretary and the Moderator can see which claimants need to be involved in the dispute resolution process related to a particular claim.

Once the Community Recorder has recorded all the details for a claim, a summary of the claim can be generated by Open Tenure and this summary can be printed and given to the claimant.

Community Recorders

The Community Recorders are responsible for collecting the claims for community members following a process of awareness raising, consultation and consent with all relevant members of the community. For recording the claims, they use a computer device called a tablet.

The Community Recorder has the following responsibilities:

- download the aerial or satellite image of the area where the community will be working for the next day or two before going into the field;
- arrange for the owners and occupants of the land to be recorded to be present on their land to discuss the claim together with their neighbours. The Community Recorder may suggest that the owners (or right holders) pre-mark their property boundary corners (or clear boundary lines) in some way prior to the Community Recorder's visit to the land to map the boundaries;
- in the field, the Community Recorder will map the boundaries of the land as agreed to by the owner (or right holder) and their neighbours using the satellite imagery and the positions determined by the built-in GPS in the tablet;
- record details using Open Tenure about the claim and claimant, including the rights and responsibilities, land use and owners (or right holders);
- Record scanned images of documents supporting the claim and photos of both the owners (or right holders), their ID and the property itself;
- Once back from the field and with access to the community server, upload the recorded claims from the tablets to the server where they will be available for community members to view.

If community members are not happy with a displayed claim they can ask a Community Recorder to use Open Tenure to record and submit a challenge to the claim they consider to be incorrect. A challenge is prepared in the same way as a claim with an additional link to the claim that is being challenged (refer to next sections).

The Community Recorders should be good communicators who are trusted in the community. The recorders also have to be computer literate. The skill level required to operate a tablet is not high but it is preferable if the Recorder has already used a computer before.

Step 4: Displaying claims

Led by: the Secretary

The next step is for the Community Recorder to upload the claim to the Community Server. Once the claim is on the Community Server it can be viewed by the claimant and other community members. Prints from the maps and claim listings could also be printed and displayed in a public place.

The display of Open Tenure claims provides an opportunity for community members to challenge any claim where they do not think the recorded details are correct. A challenge is made in the same way as a claim, except it is linked to the claim where the details are being questioned. The challenge/disagreement can be over any detail or part of the claim, or the entire original claim. After a claim has been displayed for a standard period of time agreed to by the community, and documented in the Community Protocol (usually 1–3 months), it is no longer possible to make a challenge against a claim.

During this display time the details of the claim cannot be changed but it is possible to ask the Community Recorder to submit further supporting documents. If the claimant thinks a change is required, he/she can write down what those changes should be and ask the Community Recorder to upload a supporting document to the claim that is being displayed on the Community Server. Later, after the display period, the Open Tenure Secretary will review the claim (including the supporting documents) and modify the claim accordingly, assuming these changes are considered fair and do not conflict with any ‘challenge’ claim

that may have been submitted. Where there is a 'challenge' claim the Secretary must refer his/her recommendations for solving the dispute to the Moderator and get his/her approval for any suggested changes prior to the changes being made.

The process for the public display of recorded claims may vary from community to community. The display of printed maps and listings in an accessible community building will probably be a common approach. An online display through the Community Server is another option where there is widespread and easy access to the Internet.

The Secretary

The Secretary is responsible for the administration and processing of the claims once they have been submitted by the Community Recorders. He/she has a key role in reviewing each claim to see if the Community Recorder has properly recorded a claim and that it is complete, with no obvious discrepancies within the claim or with other adjacent claims.

When the Secretary identifies a discrepancy he/she will inform the claimant and/or the community recorder involved that they should supply additional details or documents to clarify the claim, or withdraw this claim and make a new claim that addresses the concerns the Secretary has identified.

If a claim is properly recorded but challenged, the Secretary informs the Moderator who then initiates dispute resolution to resolve the issue. Once a dispute has been satisfactorily resolved, the affected claim(s) and/or challenge claims would be modified or withdrawn and a new claim prepared in accordance with the dispute resolution decision.

If a claim is properly recorded and not challenged, the Secretary simply recommends to the Moderator that the claim is confirmed as recognized by the community as a valid tenure relationship.

The Secretary needs to be a well-organized person who has had some administrative experience. He/she also needs to be computer literate so as to use the Community Server software effectively and become familiar with the Open Tenure software on the tablets.

Step 5: Reviewing claims

Led by: the Secretary

The Secretary will review all claims once the display period is over. If the person making the claim has requested a change to some of the details, the Secretary will make those changes through the Community Server, assuming they are not contentious. This means that if any Community Recorder actions a download to their Open Tenure tablet, not only will they receive all new claims, but also any existing claims will be updated to reflect any changes made on the Community Server.

In reviewing a claim the Secretary will check to ensure that all the important details have been recorded and that the details are consistent. For the claim map the Secretary will check that there are no overlaps and that the boundaries are consistent with what is shown on the aerial or satellite image. If there are any omissions or discrepancies the Secretary will make contact with the claimant and possibly the Community Recorder, and ask them to clarify or provide additional information.
Those claims that the Secretary considers complete, consistent and unproblematic will be forwarded to the Moderator for his/her final consideration.

Step 6: Moderate claims

Led by: the Moderator

The Moderator is concerned with the important details of each claim. What are the legitimate tenure rights associated with the property? Who wants to be recognized as the owner(s)/right holder(s)? Where are the boundaries for the property? The Moderator will assess these details and make sure they are consistent with his/her knowledge of the community.

Once the Moderator is satisfied that everything is correct, he/she will then use the Community Server to mark the claim as moderated. The Moderator can also reject a claim if he/she considers it incomplete, or if the claim is not consistent with commonly held community understandings regarding this land and property.

Another option available to the Moderator is to insist on a form of dispute resolution to resolve any aspect of the claim.

Step 7: Recognizing tenure relationships

Led by: the Community Members
Once the claim is marked as moderated on the Community Server, it implies that the recorded tenure relationships described in the claim are now recognized by the community as a whole.

Step 8: Keep tenure relationship information up-to-date

Led by: the Community Recorders and Secretary
When properties, related parties and tenure rights have been recorded on the Community Server and recognized by the community, Open Tenure and the Community Server may be used by the community to manage the resources related to these properties.

Open Tenure and the Community Server can also be used to record changes to these properties including inheritance, transfers, changes in land use, more intensive use of properties, and new characteristics that become important for the community to record.

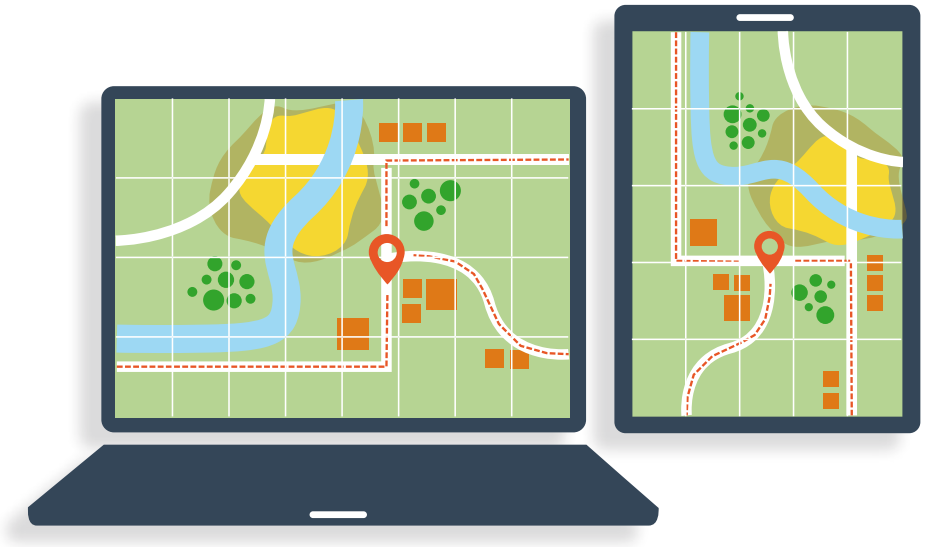
The information held on the Community Server about the community members' properties belongs to the community. The information will secure the community's tenure rights from actions that may be taken by organizations and people from outside the community in the future. It will also facilitate harmony within the community by clearly describing those tenure relationships which the community as a whole recognizes. The community may also use this information to manage their lands, fisheries and forests.

The community will lose confidence in this information if the information is not kept up to date and protected as a valuable asset. The role of Community Recorders and the Secretary remain important because of their responsibility to keep the information up-to-date and managed responsibly. Access to the tenure relationship information is part of this management responsibility, but the community itself will need to decide at an appropriate time whether they will provide access to this information to other parties from outside of the community.

4.4 Technical help available to the community

If the community encounters an issue or a software problem using Open Tenure or the Community Server, they can check the web site of the Open Tenure open source software community: www.flossola.org. This site contains information about Open Tenure, as well as other associated software to assist communities and their technical advisors in using or planning to use the Open Tenure and Community Server software.

Note that at present the site's information is only available in English. If you would like to report a particular issue or problem, you can contact the FAO Open Tenure software coordinator by e-mail: mariapaola.rizzo@fao.org.



5. Planning for the recording of tenure relationships

Following the facilitated discussions with community members that are suggested and described in this manual, the community should be able to decide whether it would like to proceed with using Open Tenure to record tenure relationships in the community. At this stage, if the consensus within the community is to proceed, a Community Protocol should be prepared based on the conclusions arising from these discussions. Everyone should have an understanding of the approach to be taken in recording tenure relationships in their community, and a clear appreciation of what are the benefits and responsibilities of undertaking such an initiative.

If the decision is to proceed, some planning needs to be done; to help with this a checklist has been prepared (Annex 1). Many of the tasks in the checklist can use the information acquired in the facilitated discussions described in this manual.

It is important to consider gender balance in the selection of individuals to fill the roles for Open Tenure activities.

The recording of tenure relationships is not something a community should enter into without careful consideration. It is a significant undertaking, and one that should only be attempted when there is a common appreciation that now is a good time to record tenure relationships, that community members are prepared to make the effort to ensure tenure relationship recording will be a success and, when needed and considered appropriate, that it has the support of external partners.

Annex 1 – Checklist of readiness for Open Tenure

Checklist of readiness for Open Tenure

- ☐ Community sessions are held to introduce community-based tenure relationship recording.
- ☐ The community decision is made to proceed with community-based tenure relationship recording.
- ☐ Support agreements are made with external parties to provide technical support.
- ☐ Arrangements are made for a host (a local desktop or a cloud server) for the Community Server.
- ☐ Arrangements are made for a suitable power supply for the Community Server (if hosted on a local desktop).
- ☐ Arrangements are made for Internet access for the Community Server (if hosted on a local desktop).
- ☐ Arrangements are made for Internet access to the Community Server (if hosted as a cloud server).
- ☐ Arrangements are made for the supply of suitable aerial or satellite imagery.
- ☐ Arrangements are made for access to suitable Open Tenure tablets.
- ☐ The Open Tenure software app is loaded on each tablet.
- ☐ Arrangements are made for power supplies to recharge Open Tenure tablets.
- ☐ The Community Recorders are identified.
- ☐ The Open Tenure Secretary is identified.
- ☐ The Open Tenure Technologist is identified.
- ☐ The Community Moderator/Moderator Committee are identified.
- ☐ The categories of tenure rights and land uses that need to be recorded have been identified.
- ☐ Arrangements are made for new language version(s), if necessary.
- ☐ Arrangements are made for Community Recorder training.
- ☐ Arrangements are made for Open Tenure Secretary and Moderator training.
- ☐ The community is aware of tenure relationship recording activities, benefits and outcomes using Open Tenure.
- ☐ The community is aware of how it needs to prepare for tenure relationship recording.
- ☐ The community is aware of how the Open Tenure Display process will work and how community members can challenge any claims made.
- ☐ The community is aware of dispute resolution procedures that can be used in recording tenure relationships using Open Tenure.

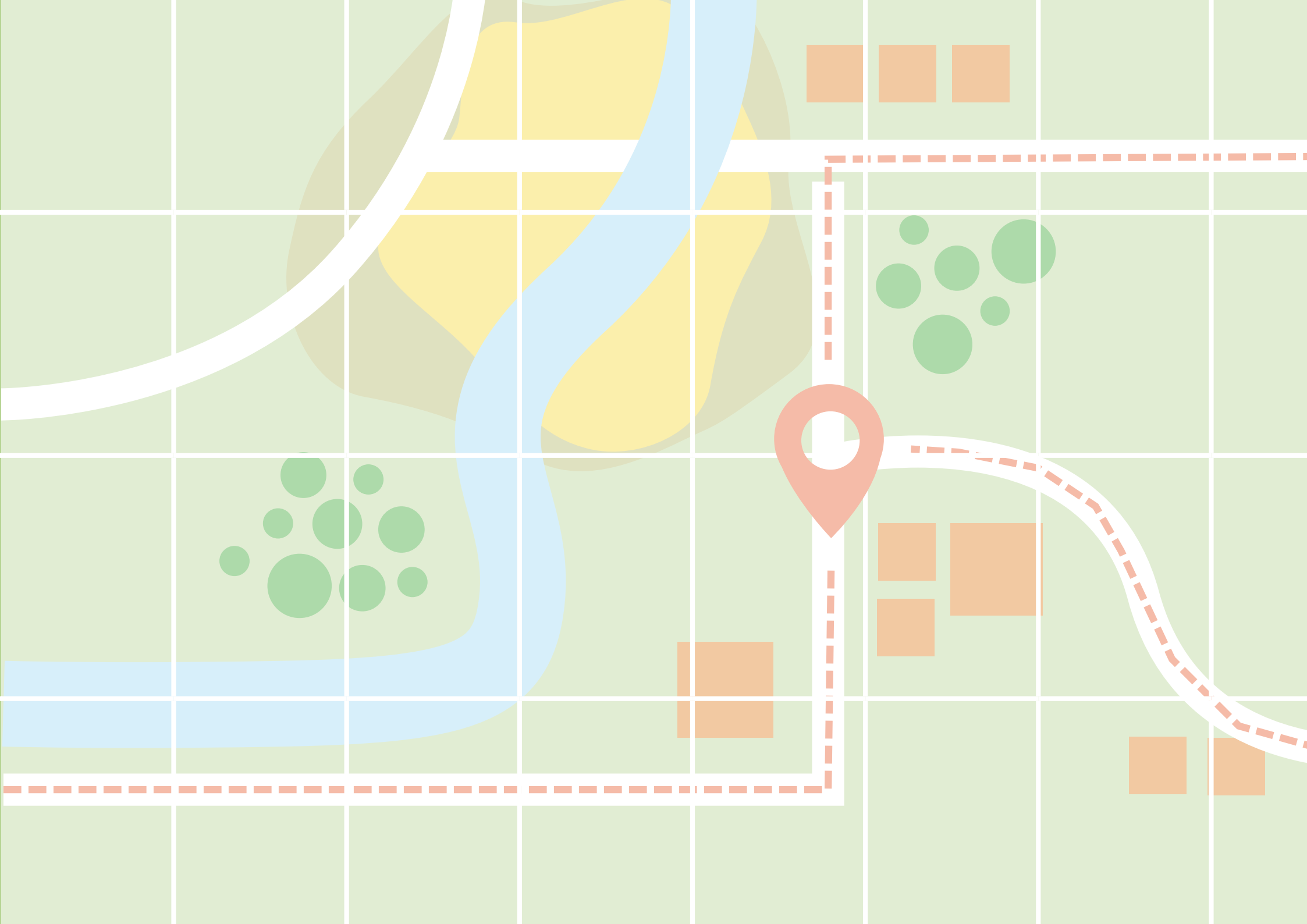
Annex 2 – Resource material for recording tenure

Resource material for recording community tenure relationships

Module	Dropbox Link/URL
1.0 What is Open Tenure?	https://www.slideshare.net/FAOoftheUN/community-tenure-recording-training-material-introduction
1.1 Voluntary guidelines for responsible governance of tenure	https://www.slideshare.net/FAOoftheUN/community-tenure-recording-training-material-the-voluntary-guidelines-on-the-responsible-governance-of-tenure-of-land-fisheries-and-forests-in-the-context-of-national-food-security
2.0 How to use this resource material	https://www.slideshare.net/FAOoftheUN/community-tenure-recording-training-material-how-to-use-this-resource-material
3.0 Key tenure concepts	https://www.slideshare.net/FAOoftheUN/community-tenure-recording-training-material-introduction-to-key-tenure-concepts
4.0 Using Open Tenure	https://www.slideshare.net/FAOoftheUN/community-tenure-recording-training-material-using-open-tenure
5.0 Community Protocol (and associated brainstorming sessions)	https://www.slideshare.net/FAOoftheUN/community-tenure-recording-training-material-establish-the-community-protocol
6.0 Get ready for tenure recording	https://www.slideshare.net/FAOoftheUN/community-tenure-recording-training-material-risks-benefits-and-consent

Technical training

Module	Dropbox Link/URL
Open Tenure	https://www.slideshare.net/FAOoftheUN/community-tenure-recording-training-material-open-tenure-mobile-user-training
Community Server	https://www.slideshare.net/FAOoftheUN/community-tenure-recording-training-material-community-server-user-training
Web Admin	https://www.slideshare.net/FAOoftheUN/community-tenure-recording-training-material-web-admin-user-training



Download app

Contact

VG-Tenure@fao-org

Download source

www.github.com/SOLA-FAO
www.github.com/OpenTenure

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