

DOCUMENTING AGREED BOUNDARIES



After a community has harmonized the boundaries of its lands with neighbors, it is necessary to create as many different forms of proof of the land claims as possible. There are three basic ways to create this proof:

- 1. Informal paper proof, in the form of Memoranda of Understanding (MOUs) between communities.** MOUs are useful as proof between communities of what they agreed upon during the boundary harmonization process. If any community member disrespects an agreed boundary, an MOU can be used as proof of the boundary agreements. MOUs can also help provide proof of a community's land claims to courts and other outsiders.
- 2. Informal physical proof, such as planting boundary trees or other physical markers on the land.** Physical proof on the land is necessary to show all community members and neighbors where the agreed limits of a community's lands fall (so that they can respect the boundaries). Physical markers are also useful to illustrate community limits to outsiders or as a type of landscape-based evidence to show to courts and other government agencies.
- 3. Formal technical measurements of boundaries using coordinates collected with a Global Positioning System (GPS) device, from high resolution satellite imagery, or through a land survey made by a licensed surveyor.** GPS coordinates and surveys provide specific, technical, digital proof that many government cadasters require in order to formally register community land claims. They are the strongest form of community land documentation, as they include exact coordinates of boundaries and are most useful for demonstrating to external actors where a community's lands begin and end.

It is best to work to secure at least the first two forms of proof. In some contexts, communities may not want to survey or GPS their boundaries; however, if the community wants to apply for formal registration it is likely that the government will require some form of technical measurement of boundaries. There are three different ways for facilitators to support communities to secure this proof, as described below.

HOW TO FACILITATE THE SIGNING OF BOUNDARY MOUS?

An MOU (Memorandum of Understanding) is a formal paper "contract" between two parties. While most contracts concern the exchange of goods and services, MOUs are used when there is no exchange – they simply document an agreement. It may be easier to call them "Signed Boundary Agreements." Use whatever term is most appropriate and understandable in the local context.

MOUs can include whatever information the community feels is best, but all MOUs should be sure to include:

- A list of the parties to the MOU (usually the communities' names).
- The purpose, terms and conditions of the MOU. For example, a community may choose to write: "This MOU is to make clear for all future generations where the boundary is between X Community and Y Community, and to provide proof that we agreed with one another about this decision, so that there will be no future challenges to this boundary."

- A list of the boundaries that are agreed to in the MOU. For example, a community may choose to write: “This boundary is the northern boundary of Community X, and the southern boundary of Community Y.”
- Descriptions of the agreed boundaries. Boundaries should be described with reference to nearby towns or other markers. For example, a community may choose to write: “The boundary is marked by X River” or “the boundary is marked by ten soap trees planted today as proof.”
- Drawings, maps, and/or photographs of the agreed boundaries.
- Written agreements about any land and natural resource use and access rights, including rights of way and seasonal users’ rights.
- Names and signatures of the people who will sign on behalf of each community.
- Names and signatures of those who will sign as witnesses on behalf of each community.
- Signatures of local government officials or other authorities who will attest to the MOU.
- Agenda/How the ceremony will progress: Who will officiate the ceremony? Who will be invited to speak? In what order will they speak? Will all people present be invited to sign the MOU? Or only certain people? Will there be a ceremony beforehand, or traditional dance or music performances?
- Addressing last-minute objections to the agreed boundaries: How will the community deal with any objections to the agreed boundaries that might arise during the ceremony? Which trusted leaders will help mediate the challenges? Will there be a structured process for answering all objections? Will the ceremony be paused until a new agreement is quickly worked out?
- The role of local government; how regional government actors will be integrated into the ceremony: Which government officials will be invited to witness the ceremony? Which leaders will be invited to speak? How will the officials be honored? What role will each of them play in the ceremony? What will the community do if a government official challenges the agreed boundary?
- The time and date of the ceremony, and people’s roles: What are the responsibilities of all of the people present? By what dates and times should they complete their responsibilities/tasks?

The MOU-Signing Process consists of the following seven steps:

Step 1: Explain the MOU-signing process and make a plan with the community’s leaders, Community Land Mobilizers and Interim Coordinating Committee. At this meeting, facilitators should confirm that all of the community’s boundaries have been harmonized, review the agreements, and explain the purpose of signing MOUs with neighbors and the usefulness of having a paper “contract” documenting the agreements.

After describing the full process of drafting and signing MOUs and answering any questions community members may have, facilitators can support leaders, Mobilizers and the Committee members to develop a MOU-signing plan. The plan should include six elements:

- The MOU drafting process itself: Who will be responsible for drawing up the MOU language? How will the community work with the facilitating organization to complete a final draft and make copies for signing?
- Invitations and hospitality related to the ceremony: What communities will be invited to the MOU signing ceremony? How will invitations go out? Word of mouth, radio, direct invitations, in meetings, etc.? Where will the ceremony be held? Who will be responsible for decorating the area? How will guests be honored? How will the community feed (and house) its visitors? How will the costs of the ceremony and the responsibilities for hosting it be shared among community members?

Step 2: Support the community to invite neighbors to the MOU-signing ceremony. Even though each boundary agreement with a neighboring community should have a separate, individual MOU document, the MOU-signing ceremony can bring together multiple communities. For example, if the community shares four boundaries with four separate communities, there should be four separate MOUs but the community may choose to hold one single MOU-signing ceremony where all five communities gather to celebrate and sign the final documents. The MOU-signing ceremony should be open to any community member and neighbor who wants to attend. When sending out invitations for the MOU-signing ceremony, instruct communities to make sure the time, date and location of the ceremony are very clear.

If a community has harmonized all but one of its boundaries, it can still hold a MOU-signing ceremony.

While not ideal, the community can hold the MOU-signing ceremony with all the agreeing neighboring communities, then hold a second, subsequent MOU-signing ceremony with the remaining neighboring community once the boundary dispute has been successfully resolved.

Step 3: Support the community to draft the MOU and share it with the whole community.

The Community Land Mobilizers, ICC and leaders should sit and draft the MOU. They may want to refer to the example MOU (see below) and the list of what should be included in a boundary agreement MOU (see above). Communities can add any new sections or sentences to make the agreement clear. They might want to include language describing the purpose of the MOU and their hopes for the future now that their boundaries are harmonized. Communities can either make separate MOUs for each boundary, or one large MOU for all of their boundaries.

Once the MOU is drafted, the Community Land Mobilizers, ICC and leaders should present the draft MOU to the full community and make sure that everyone agrees to it. When the draft is presented, it should be read and explained carefully and clearly. At this meeting, community members should discuss any points of disagreement until everyone agrees with the MOU. Facilitators should make sure that the community documents and records the details of the meeting.

Step 4: Support the community to share the draft MOU with all neighbors.

To be sure that all communities agree with the draft MOU, the community should share it with all of its neighbors before the signing ceremony. This will help to ensure that all disagreements are worked out well in advance of the ceremony itself.

Step 5: Make sure the community begins preparations for the MOU-signing ceremony a few days in advance. Facilitators should advise the community to collect contributions and resources needed for feeding and hosting guests at least a few days in advance.

This is a good time for the host community to send representatives to the households who have lands along the boundary to make sure they know about and attend the ceremony.

Step 6: Advise the community on how best to hold the MOU-signing ceremony:

- On the morning of the MOU-signing ceremony, representatives of both communities should sit together and fill out the final MOU documents – without the signatures.
- At least one person should be assigned to record minutes.
- Time should be allocated for leaders to begin the event by making speeches.
- Community leaders should read the MOU out loud. Leaders or people on the boundary teams might explain publicly why and how the boundaries were agreed to.

- Be ready to address last-minute challenges. Ask trusted leaders to act as mediators if a conflict arises.
- Once the MOU has been read out loud and if no one disagrees, ask people to sign the MOU. Start with local leaders and all government officials invited to witness the MOU. It is important to have all leaders, government officials, selected community representatives and witnesses sign the document at the same time, in public view. Witnesses may include local or customary leaders, representatives of elders, women, and youth of the communities along the boundaries, the Community Land Mobilizers, and/or the coordinating committee members.
- Whoever wants to sign the MOUs as a witness should be permitted and encouraged to do so. Facilitators should explain to the community that there is no limit to how many people can sign and that an MOU appears stronger if it has many signatures of community members. Simply attach extra pages to allow space for everyone's signatures.
- People who cannot sign can leave a thumbprint.
- The list of signatures should be attached to the MOU as proof of the ceremony and the community's agreement.
- End the MOU-signing ceremony with a celebration of the communities' harmonized boundaries! The community should try to offer food or drink to everyone who attended and have traditional dancing or other performances that celebrate the agreement.

Step 7: Ensure that the host community makes copies of the final, signed MOU to keep for itself and to distribute to each neighboring community.

The original copy should be kept in a safe, dry location with a responsible, appointed member of the community. Facilitators may also want to ask permission to take photographs or make photocopies of the MOUs for safekeeping.

Recording the ceremony and planting of boundary markers on a camera or smartphone is another form of documenting the agreements and creating evidence that can be useful if boundaries are ever disputed. These recordings can be stored with other digital records, such as maps or boundary marker coordinates.

SAMPLE MEMORANDUM OF UNDERSTANDING

between

The community of _____

and

The community of _____

Signed on _____

WHEREAS we, residents of (name of county/district/region) and the Republic of _____
seek to secure our existing land rights by documenting our customary land claims; and

WHEREAS we believe that land- and natural resources-related conflict or insecurity will hinder our community development,
interfere with our livelihoods and family survival, and impede the full prospering of our local communities; and

WHEREAS we seek to avoid future land- and natural resources-related conflicts and to clarify all community boundaries so as to
be able to independently seek documentation of our respective community lands, and

WHEREAS our local leaders, including _____, have endorsed these efforts and expressed support for our actions;

NOW, THEREFORE we together agree to clearly and finally establish the boundaries between our communities, and to desist
from any further boundary conflicts concerning this area. To this end, we hereby declare:

1. This MOU is documenting the boundary between _____ community, and
_____ community.

2. The boundary is described by the following evidence and markers: _____

3. A map of the boundaries (sketch map below or attach a copy of the community map):

4. These boundaries will be permanent and undisputed. Should a boundary disagreement arise, this signed and witnessed agreement will be referenced to resolve the dispute. The communities signing this agreement pledge to peacefully and quickly settle all boundary disputes related to this agreement, using mediation and other non-violent methods of dispute resolution.
5. This MOU makes clear for all future generations where the boundary is between community and community. It provides proof that we have agreed with one another about this decision, so that there will be no future challenges to this boundary.
6. Should an individual family or member of one of the communities plant crops or build buildings across the agreed boundary, the community that such individual or family belongs to will be responsible for condemning this action and taking proactive measures to re-establish the boundaries as agreed today.
7. The communities that are signatories to this agreement will use these boundaries when applying for legal documentation of their land rights. Furthermore, if and when either community applies for its lands to be surveyed, these boundaries will be the ones recorded and measured.
8. The parties have agreed that copies of this MOU shall be deposited with all relevant government agencies and officials, including:
9. This boundary agreement was witnessed and signed by the following leaders, government officials, and community members on this day of :

NAME	TITLE AND COMMUNITY AFFILIATION	SIGNATURE
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		
11.		
12.		
13.		
14.		
15.		

Feel free to add as many signatures of witnesses as your community feels is necessary.

HOW TO FACILITATE THE PLANTING OF BOUNDARY TREES OR PHYSICAL MARKERS

In addition to creating a paper record of the agreed boundaries, communities should also create landscape-based evidence of agreed boundaries. They can do this by planting “boundary trees” or placing designated markers chosen by the community along the limits of their land. It may not be necessary for facilitators to be present for this activity. Some communities request support, while others choose to do it on their own.

Each culture and region tends to have certain trees or bushes that people have used traditionally to mark boundaries. For example, in Liberia they use “Cotton” trees because they grow to be exceptionally tall or “Soap” trees because they are fire-resistant. In Uganda, they use “Omara-mara” trees, because one can plant branches in the ground like fence poles and the branches will root and become trees. In other cultures, people carve into tree trunks to indicate boundaries. Alternatively, communities may choose rivers, roads or large boulders as their boundary markers. Others may choose to paint and erect signs clearly advertising that the community’s lands extend to that point. Support communities to choose the marking strategy or strategies that work best for their context and needs.

The process to plant physical boundary markers consists of the following five steps:

Step 1: Prepare a boundary-tree/marker planting team.

Facilitators can work with Community Land Mobilizers to create a team responsible for walking along the boundaries and planting trees and/or other markers as they go. The Interim Coordinating Committee, Mobilizers, and local leaders from the community and all neighboring communities should be present for the walk. Community Land Mobilizers should also make arrangements for residents of neighboring communities whose family lands are close to the boundaries to be present when the boundary tree-planting team arrives (to supervise and ensure agreement).

If people cannot be present, come back to those borders another day when they can take part. It is better to delay boundary demarcation and make sure that the boundaries are agreed to by all, rather than rush the process and create new disputes.

In some communities, the marking process may cause conflict because of the final, physical nature of the activity. The boundary tree/marker planting team should include trusted and respected leaders who are experienced in land conflict resolution and the whole team should be ready to address conflicts calmly and peacefully if they arise. Advise communities to choose level-headed individuals who know how to de-

escalate conflict. Make a plan for how the team should deal with situations where individual households ask for the line to be placed in a slightly different location than originally planned.

The boundary tree/marking activity may re-instigate a boundary conflict. Advise communities to be prepared to engage in conflict resolution activities as they complete this activity.

Step 2: Plan the logistics. Marking boundaries is labor-intensive, as it involves walking long distances, digging holes, carrying tree seedlings and markers, planting, and watering. The boundary tree planting/marking team should be prepared to work hard! Support the community to figure out how many trees/markers it will need, how long it will take to walk the boundaries, and how to transport the trees/markers as the team moves along the boundaries. If the community has decided to plant boundary trees, it may be necessary to start growing seedlings – this should be done well in advance, perhaps as soon as the community is close to finishing the boundary harmonization process.

Step 3: Walk the boundaries and plant trees/markers. The boundary marking may take one day, or it may take many days. The team should walk or drive around the perimeter of the community land together, stopping to plant trees/markers, and address any concerns or conflicts that arise on the way. Be ready for families living along the perimeter to ask to push the line a meter or two in one direction or another. During this activity, the boundary tree planting team should keep the following issues in mind:

- **Protect rights of way:** Many communities give outsiders or members of neighboring communities rights of way through their community land, either to travel through the area or to access resources that they have use rights to. The boundary team and neighboring communities should agree on the location of these routes and mark them clearly. In areas shared by pastoralists and agriculturalists, the boundary tree planting team may want to design fences or other ways to keep an open channel for livestock to pass through but also prevent them from breaking free and trampling or eating families’ crops.

- **Consider how the landscape may change over time.** The team may need to consult with those families living along the boundary about the best location for markers and/or trees. Advise communities to pay attention to such things as the currents of a river (particularly in flood zones), whether a full-grown marker tree would cast shadow on people's farms, and any other factors that should be taken into consideration when choosing where to place markers. Remember that if the marker trees will grow to be very large, they should be spaced appropriately to ensure they each have enough room for their roots to spread.
- Surveying often requires a professional, licensed technician to produce an official survey of the community's land. If surveys are required, facilitators should support the community to identify qualified professional surveyors. Land surveys are expensive and facilitating organizations may need to be prepared to provide financial assistance to work with professional surveyors.
- Taking GPS coordinates is a more accessible technology – GPS devices are becoming more accurate and less expensive every year. Facilitating organizations may want to invest in a basic GPS device and train a staff member to use it competently (see the box on "Supporting Communities to Use GPS Coordinates" below). Communities and facilitating organizations can also use GPS coordinates to mark the locations of sacred sites, water bodies, schools, churches, graveyards, clinics and other things a community wants to record. GPS coordinates can also track the edges of forests, the extent of grazing lands, and other areas that might grow or shrink over time.

Step 4: When the marking is complete, redraw or revise the community's map as necessary. Facilitators may help communities to revise their community map to reflect the final locations of the planted boundary trees/markers. (If working with digitized maps or satellite imagery, taking GPS coordinates can help with this – see the section on "Taking GPS Coordinates and Surveying the Land" below.)

Step 5: Make a plan to ensure that trees/markers remain intact. Community leaders, Mobilizers, and the Coordinating Committee/Land Governance Council should work together to make sure that no one uproots the boundary trees or destroys boundary markers. If a tree is found uprooted or burned down, a team should be dispatched to address the cause of the destruction, resolve the underlying conflict, and re-erect the boundary. It may be useful to assign community members or leaders to make regular tours of the boundaries to check that the markers remain in place and the trees are thriving. In some countries, uprooting boundary markers is considered a criminal offense; if there are repeated instances of boundary marker destruction, it may be useful to research national laws and, if applicable, seek government support.

If the community is bringing in a surveyor or GPS technician to take the measurements of the boundaries, it is advisable to take GPS coordinates and/or survey the land after holding the MOU-signing ceremonies and planting boundary trees/establishing permanent boundary markers: by the time those activities are complete, there is less of a chance that boundary conflicts will disrupt the taking of technical measurements. However, facilitators and community leaders should still be ready for additional boundary conflicts and land disputes to arise. Bring a skilled and respected mediator along with the GPS or survey team and prepare the team to comport themselves peacefully, respectfully, and calmly if a conflict does arise. If the community or facilitators are able to take the GPS measurements themselves, it may be possible to integrate GPS into the work of planting boundary trees/permanent boundary markers.

HOW TO FACILITATE THE TAKING OF GPS COORDINATES AND/OR SURVEYING?

Many governments require that communities record Global Positioning System (GPS) coordinates of their boundaries and/or complete a formal survey in order to register their land or seek a title or deed certificate. The legal and technical requirements for land registration vary between countries. Before working with a community to survey or GPS its lands, facilitators should research national law concerning land registration and associated technical requirements.

GPS (Global Positioning System): A satellite navigation system that measures the exact coordinates (longitude and latitude) of any location on the earth's surface using a handheld device. These coordinates can be used to record boundaries and to add precision and accuracy to a community's map.

Land Survey: A technical process for measuring the distance and angles between points on a piece of land. Surveying is often used to create accurate maps of pieces of land. A licensed surveyor is a trained professional who can conduct official surveys.

HOW TO SUPPORTING COMMUNITIES TO USE GPS COORDINATES?

Step 1: Choose a GPS device. Generally, the newer and more expensive the GPS device, the more accurate the coordinates taken. If purchasing a GPS device, seek advice from partners or local GIS experts on which devices will be appropriate for communities' contexts.

- **Smartphones with a GPS app** can take GPS measurements, but their accuracy may not be precise enough to meet government requirements for community land documentation. The accuracy can sometimes be improved by using attached Bluetooth GPS receivers or antennae. It may be a good idea to speak with government officials to find out if the coordinates taken on a smartphone will be sufficiently accurate before undertaking an extensive GPS process.
- **Handheld GPS devices** (like those made by Garmin or Trimble) are more accurate. Basic handheld GPS devices cost roughly \$200 USD. There are many guides online for selecting a GPS device.
- **GPS data loggers** are small, light-weight, battery-powered versions of GPS devices. They automatically collect data continuously while powered on. They have no screen and just a single on/off button, making them easy to use. After recording a route, resource or location, the data collected may be downloaded to a computer. GPS data loggers range in cost from \$50 to \$300.

Step 2: Practice and test the accuracy of the GPS device. Try recording coordinates for an office or house and then upload those coordinates into Google Earth (or similar software) to confirm that the coordinates are correct (and correspond to the building). Next, test the GPS device in the field to check whether environmental factors – such as tree cover – decrease the device's accuracy. If the accuracy of the device is inadequate, it may be necessary to invest in or borrow a higher quality GPS device. (Note: When using a GPS device for the first time in a new location, the measurements may have poor accuracy because it needs time to locate the satellite signal.)

Step 3: Plan with the community how to record locations on the community's land. Some things to consider when planning to take GPS coordinates:

- To save time, it may be possible to take GPS coordinates as the community plants boundary trees and or establishes permanent boundary markers. Every time the boundary marking team places a boundary tree/marker, the location can be recorded with a GPS coordinate.
- Always record all GPS coordinates in a notebook or field data sheet (in addition to saving GPS coordinates to the device). Make sure to also record what format the coordinates are taken in, which is determined by the settings of the GPS device.
- When taking a coordinate with the GPS device, take a photograph and save it, noting the location and/or GPS coordinates. Then add the photograph to the location in the mapping software. This will help clarify the location, and serve as a more complete record of where the boundary is located.
- If a community's territory is very large, it may be more appropriate to recruit teams of people who often move along the boundary/along a nomadic path and train them to use simple GPS data loggers to track their movements. If choosing this strategy, the community should select these individuals carefully and take responsibility for returning all data loggers to the facilitating organization.
- With the right tools and software, taking GPS coordinates of a community's lands is not very complicated. Depending on the Community Land Mobilizers' and community leaders' capacity, facilitators may want to teach them how to take GPS coordinates themselves. To support their learning, facilitators can accompany community members as they take GPS coordinates, helping with technical issues that arise. It is advisable to create accountability mechanisms to ensure that the devices are returned promptly and in good condition.
- After all the necessary GPS coordinates are collected, facilitators download the data points captured to a computer, then use Geographic Information System (GIS) software to create a digital map – or to add the data points to a community's existing digital map (see the chapter on *Community Mapping*).

HOW TO SUPPORT COMMUNITIES TO SURVEY THEIR LANDS?

If a community is required to, or prefers to, survey its lands, facilitators can guide the community through the steps outlined below. Requirements for official surveys vary from region to region: facilitating organizations should determine what licenses and requirements are needed to complete an official survey in their specific country.

Step 1: Ensure that all boundary disputes are resolved. It is best to call a surveyor after the Boundary MOUs are signed and markers planted, in order to reduce the number of conflicts that might arise during the survey.

Step 2: Help the community to identify a surveyor. The surveyor should have the necessary accreditation required by the government (certificates, education, training) and have a current surveyor's license. Facilitators should help communities to assess and select a surveyor. Surveyors often work exclusively in cities or for private households: when choosing a surveyor, communities should assess the surveyor's track record of working in rural areas, over large areas of land, and for low costs. A surveyor that is open-minded about communal property may be a better fit for the work. Likewise, some surveyors offer discounted rates to low-income families; communities might enquire about rates that could apply to them.

Step 3: Negotiate the terms of service. Facilitators should support the community to make that sure all details of the work that will be carried out are included in the contract:

- **Costs.** The cost of surveying varies by region and depends on the size of the land, the difficulty of accessing the boundaries, how far the surveyor will have to travel, the terrain, and other factors. Before price negotiations begin, facilitators should research the average costs for formal surveying in the area and provide the community with an estimate of fair costs.
- **Payment.** Make sure that the contract stipulates that the community will pay half of the costs of the work before the work begins, and half of the work only after the surveyor has fulfilled the contract.
- **Scope of work.** Will the surveyor only take measurements and provide a completed survey, or will s/he also submit formal documents/a complete application for title to the relevant government agencies or offices? If the surveyor will file the documents on the community's behalf, make sure to get in writing a clear timeline of the turnaround time from the physical survey to the submission of the application for title.
- **Timeline.** Attention must be paid to timing and deadlines: by when will the surveying work be complete? How soon after the technical survey will the map be made? How soon will the community be able to file its paperwork with the government?
- **Records.** Ensure that the surveyor will provide copies of all work products to the community for their records.
- **Remedies.** What can the community do if the surveyor fails to fulfill the terms of service?

Step 4: Support the community to sign the contract with the surveyor. Communities will likely have to enter into a contract with the surveyor. Communities should make sure that they understand and agree with all the terms of the contract before they sign it. Community members should choose a few individuals to sign the contract on their behalf (likely the Land Governance Council/Interim Coordinating Committee, or community leaders). The community should sign at least two copies and keep a copy of the contract for its records. Facilitators may also want to keep a copy for their own files.

Step 5: Inform neighboring communities and all relevant local authorities. Communities should inform all neighboring communities, leaders, and local authorities of the date and location that the survey will take place to ensure they are aware of and present for the survey, as appropriate.

Step 6: The surveyor completes the field measurements. On the day of the survey, the surveyor will likely come to the community with several assistants. They will use surveying equipment to take measurements. The community and its neighbors should be present to make sure that the equipment markers are placed in the agreed location, marking the boundary exactly as agreed.

Step 7: The surveyor produces a survey document. The surveyor will then produce a survey plan made from the field measurements. He/she may then submit the map and an accompanying file to government officials if requested by the community. However, the process of submitting the survey map to the government varies by nation: facilitators should research this process and teach community members about exactly what will happen in government offices once the survey is completed.

Step 8: The community receives a final survey of its land. The community should receive the final map (or set of maps) made by the surveyor. If the surveyor has submitted a more complete technical file and application for title to the government, the community should also receive documents from the government, including a formal plot number. The total time necessary to complete these steps varies by nation, but often takes many months.