



Creation and Operation of Boundary Commissions in Africa

The User's Guide

African Union Border Programme (AUBP)

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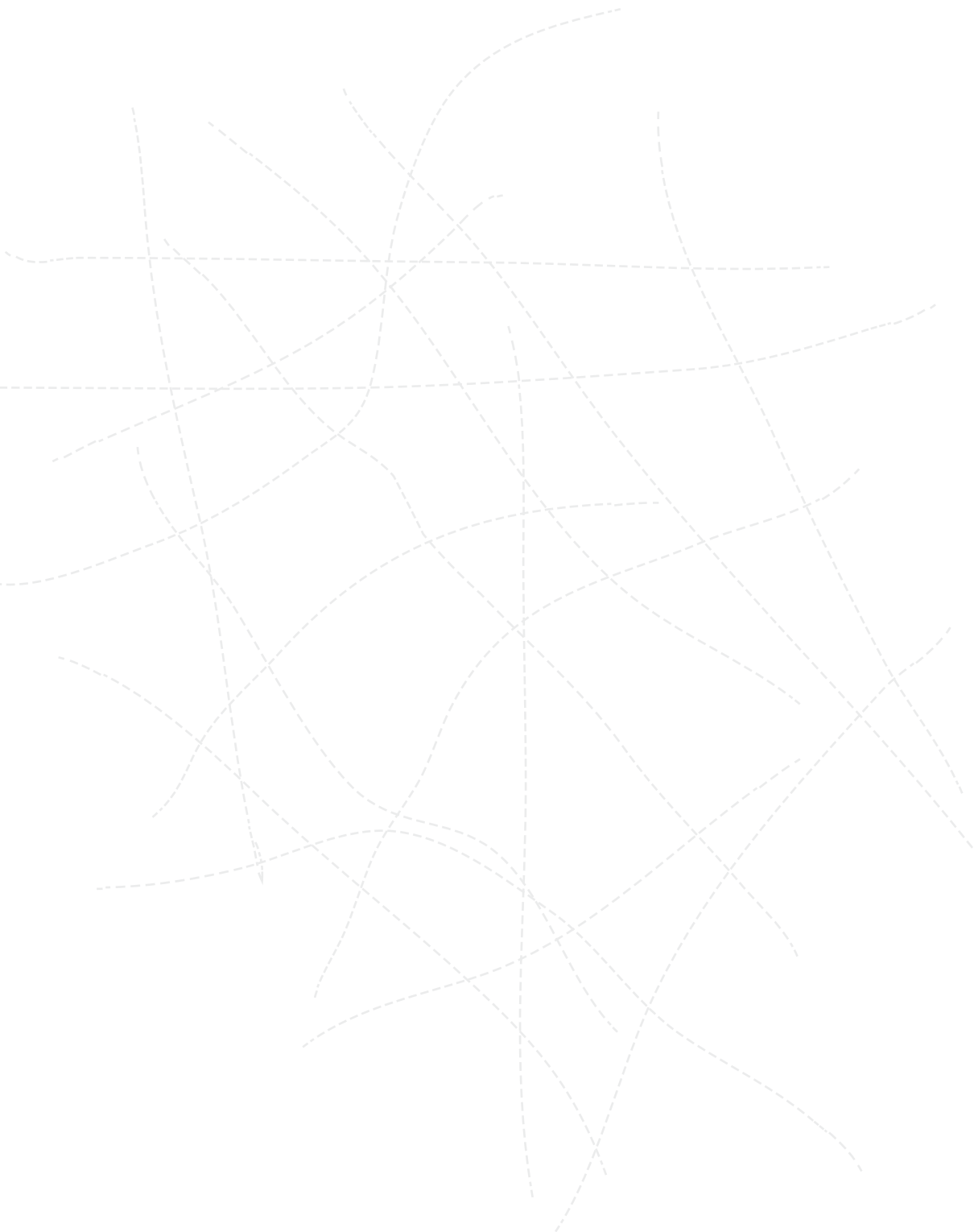


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1

Introduction

Boundary commissions have the difficult task of practically applying the political decisions that define boundaries to the local human and physical landscapes. Historically, through the eighteenth, nineteenth, and much of the twentieth centuries, boundary commissions took the form of temporary expeditions rather than distinct government departments. Often created after major wars or conflicts, most historical boundary commissions across Europe, Asia, and the Americas would include officials from the neighbouring States, as well as observers or mediators from third States. These commissions would be assembled, generally for a limited period of time, to survey and map boundary sections. Some commissions may have attempted to mark boundaries on the ground, but there has been little consistency in the ways in which boundaries were defined and demarcated.

The international land boundaries inherited by African States at independence were the products of many inter- and intra-colonial boundary commissions that had undertaken survey, mapping, and demarcation work. Their work employed a wide range of methodologies that resulted in maps of widely ranging degrees of accuracy. While maps rendered these former colonial boundaries as distinct lines at independence, inconsistencies in the work of colonial boundary commissions across Africa conveyed a different story on the ground. Some commissions were convened between two neighbouring colonial officials simply to verify or define a short section of a particular boundary.¹ Other commissions were large operations including numerous surveyors, officials, and labourers who worked over several years along lengthy sections of boundary, as was the case with the 1927-33 Anglo-Belgian boundary commission along the Democratic Republic of the Congo (DRC)-Zambia boundary.²

Prior to 1918, many early colonial commissions were tasked with only surveying and mapping a specific boundary section, particularly in more remote areas, while other commissions – particularly after 1918 – were responsible for more rigorous surveying, mapping, and comprehensive demarcation of the line on the ground (e.g. Somaliland, DRC-Zambia, Ethiopia-Kenya).³ Some inter- and intra-colonial boundaries were not subject to any kind of accurate survey, nor any kind of physical definition or verification on the ground. Boundaries between the administrative regions of specific colonial powers were often changed or adjusted, as was often the case with the French administrative ‘cercles’ across West and Central Africa. So the definition of international boundaries that were inherited by African States at independence was much more haphazard, inconsistent, and ambiguous than may have been originally understood.

This handbook was written under the aegis of the African Union Border Programme (AUBP) to assist African States in creating national and joint boundary

¹ For example, the 1895 Anglo-German boundary commission including Captain C.F. Close and Lt. Von Besser identified endpoints of a short section of the Cross river boundary, now the southernmost section of the Cameroon-Nigeria boundary.

² Peake, E.R.L. ‘Northern Rhodesia, Belgian Congo boundary.’ *Geographical Journal* 83, no. 4 (1934): 263-277.

³ For example, the Ethiopia-Kenya boundary was fully demarcated, surveyed and mapped in the 1950s and concluded by a treaty agreed in 1970.

commissions that are able to address the problems associated with boundary definition, to help prevent long-term disputes, and to encourage cross-border cooperation that aids in the development of border areas.⁴ The handbook begins by outlining the international legal concepts that frame the work of international boundary commissions. It then explores the procedural elements for creating national and joint boundary commissions including the general context, different types of structures, and mandates for commissions. It concludes by recommending some good practice guidelines for the work of national and joint boundary commissions.

Every boundary across Africa – indeed across the world – is unique, with its own distinct history, definition, and human and physical geographical contexts. The aim of this handbook is not to proscribe strict regulations for how boundary commissions should be created and should work, as this will depend on the individual contexts. Instead, by gathering information and advice from boundary commissioners across Africa, the handbook aims to provide other African governments and institutions with inspiration and some helpful guidance based on existing practice. This has drawn heavily on the advice of practitioners around the continent who contributed to the AUBP publication on African boundary delimitation and demarcation,⁵ as well as the experiences of other boundary commissions around the world. The handbook will concentrate on those commissions established for the purposes of recovering, demarcating, delimiting and maintaining international boundaries. However, it will also explore how some boundary commissions have been given responsibilities for other aspects of border management, such as the management of transboundary water resources. While not attempting to address every issue that might arise in the creation and work of boundary commissions, it is hoped that, by distilling some of the most practical and relevant elements from these experiences, this handbook will prove easily accessible and useful in helping officials and institutions achieve the long-term aims of the AUBP as defined in the Declaration on the African Union Border Programme and its Implementation Modalities as Adopted by the Conference of African Ministers in Charge of Border Issues, 7 June 2007.

Although still often used by government officials to emphasise the importance of boundaries, Lord Curzon's famous remark that international "frontiers are the razor's edge on which hang suspended the modern issues of war and peace, of life or death to nations"⁶ needs to be consigned to history. The definition and maintenance of boundaries in the twenty-first century should be addressed by States not as issues of war and peace, but as part of normal, everyday administrative re-

⁴ The text of the handbook was drafted by Dr John Donaldson of the International Boundaries Research Unit at Durham University, UK, and revised following a meeting of a review group of African boundary experts in Ethiopia in August 2012.

⁵ *Delimitation and Demarcation of Boundaries in Africa: General Issues and Case Studies*. African Union Commission/AUBP, 2013.

⁶ Curzon, G.N. *Frontiers: The Romanes Lectures* Oxford: Clarendon Press, 1907. p.7. As Viceroy of India, Curzon himself oversaw the organisation of five boundary commissions.

sponsibilities. If properly structured, mandated, and adequately resourced, joint and national boundary commissions provide the tools with which to fulfil that role and address boundaries not as the sites of potential conflict, but the sites of perpetual contact and integration.

1.1 International legal concepts relevant to boundary commissions

The key international legal principle that has framed all work on African boundaries since decolonisation has been *uti possidetis* or the ‘intangibility’ principle. Its full Latin form reads *uti possidetis iuris, ita possideatis iuris* which translates into ‘as you possess in law, so you shall possess in law.’⁷ This principle was most famously accepted by the leaders of the Organization of African Unity at their 1964 meeting in Cairo and enshrined in Article 2 of Resolution 16(1). Although the term *uti possidetis* was not used directly in the text, the signatory independent African States pledged to respect the territorial boundaries that they inherited from the colonial period, which is effectively the definition of *uti possidetis*. As a legal principle, *uti possidetis* is important for African boundary commissions because it helps establish a legal starting point for boundary definition. As one of the ramifications of the development of post-colonial international law, it is also the legal framework through which boundary disputes are resolved through international adjudication or arbitration. However, it is essential to understand that the principle of *uti possidetis* or ‘intangibility’ (as it has become popularly known in Africa) does not prevent neighbouring States from clarifying or even changing their international boundaries as long as this is undertaken by agreement. Instead, it is a legal principle that served to ease the transition from colonial administration to independent State government at the dawn of independence.

Beyond the very general legal principle of *uti possidetis*, it is also important to emphasise that there are no defined international rules or standards that specify how States should establish joint and national boundary commissions. Nor are there any rules or standards that define the technical parameters for how States should define international boundaries (such as the dimensions of boundary pillars, distance between pillars, or scale of boundary mapping or regimes for maintaining boundary marks etc.). These are all issues that need to be agreed by the two neighbouring States, usually within a joint boundary commission. Since international boundaries are the sovereign responsibility of both neighbouring States, any definition, clarification, or maintenance of a boundary must be agreed

⁷ Donaldson, J. ‘Perceptions of legal and geographic clarity: defining international land boundaries in Africa’ in Home, R. ed. *Essays in African Land Law* Vol. II. Pretoria: Pretoria University Law Press. 2011; also Lalonde, S. *Determining Boundaries in a Conflicted World: The Role of Uti Possidetis* Montreal and Kingston: McGill and Queen’s University Press, 2002.

by both parties in order to be legally valid.⁸ This does not necessarily mean that both States must actively participate in such work, simply that any work must be undertaken with the consent or agreement of both States. Any work on the physical definition of a boundary that is undertaken without the direct or indirect consent of a neighbouring State, however innocent it may seem, may not prove to be legally valid and can provoke conflict.⁹

⁸ See especially Cukwurah, A.O. *The Settlement of Boundary Disputes in International Law* Manchester: Manchester University Press, 1967. p159.

⁹ In 2010, Israeli workers were clearing trees on their side of the de facto boundary with Lebanon. Without knowing precisely where the line was situated on the ground, Lebanese border troops believed this work was taking place on their territory and opened fire. Although the tree clearance was situated on the Israeli side of the line, this simple misunderstanding led to a very serious exchange of fire and several casualties.



2

**Creating
boundary
commissions**

2.1 General context

The central aim of any boundary commission should be to prevent the risk of disputes between national and/or local populations arising from overlapping claims to territory and maritime jurisdiction. As already noted, prior to the first decades of the 20th century, boundary commissions around the world were almost exclusively bilateral and temporary entities. In colonial Africa, there is no known record of any colonial administration having a permanent domestic or joint commission dedicated to boundary definition and maintenance. More commonly, joint (or intra-) colonial boundary commissions would be created for a short period of time to undertake boundary survey or demarcation work, and would be disbanded at the completion of their mandate. The vast majority of African colonial administrations gave little attention to clarifying boundaries or maintaining them on a permanent or regular basis. At the conclusion of the later and more comprehensive colonial demarcation commissions from the 1920s to 1950s, some neighbouring administrations agreed to undertake the joint periodic inspection of pillars. The 1933 Anglo-Belgian agreement following demarcation of what is now the DRC-Zambia boundary stated that the neighbouring colonial administrations would maintain pillars annually along designated sections and would conduct a joint inspection of all pillars every ten years.¹⁰ However, even where a boundary maintenance regime was agreed, it was most common that there was little or no maintenance of boundary pillars following the initial demarcation as, indeed, was the case along the DRC-Zambia boundary prior to independence.

Unfortunately, many of the inter- and intra-colonial boundaries across Africa had not been subject to more detailed and comprehensive definition by the respective dates of independence. Under the *uti possidetis* doctrine, this left post-independence African States with ambiguous boundary definitions that continue to spark numerous disputes and tensions from the local through to the national level.¹¹ Since independence, few African States have been able to improve the definition of their international boundaries due in large part to the lack of (especially financial) resources as well as to the lack of equal interest from neighbouring States. One State may be interested and committed to improving the definition of a particular boundary, but the neighbouring State may be unwilling or unable to participate. Officials from across the globe emphasise that the key to successful boundary work, including the long-term prevention of disputes and development of cross-border cooperation, is creating goodwill and trust on both sides. This can be initiated and nurtured through the work of properly structured and mandated national and joint boundary commissions.

¹⁰ Article 10, 7 April 1933 *Exchange of Notes between Great Britain and Belgium concerning the Results of the Boundary Commission of the boundary between Northern Rhodesia and the Belgian Congo*. No joint inspection ever took place prior to Congolese and Zambian independence.

¹¹ Arguably the most deadly post-independence border dispute was the war between Eritrea and Ethiopia between 1998 and 2000. More recently, boundary disputes have flared into violence between Kenya and Uganda, Djibouti and Eritrea, and Sudan-South Sudan.

Before creating a national or joint boundary commission, the government or neighbouring governments involved first need to assess the general context of their 'boundary relationship.' This will include a variety of questions:

- ▶ Are there any existing boundary or territorial disputes?
- ▶ How has the boundary been defined previously?
(See section 3.1 on data collection, sharing and interpretation)
- ▶ Are there any existing boundary commissions, both at the national level, and perhaps at the local level such as local joint border committees?
- ▶ What is the system of governance of the specific States? Is the government federalised, with significant authority devolved to individual states, provinces or other subordinate administrative districts, as is the case in Nigeria? Or is the government structure centralised, with little authority vested in sub-national regions?
- ▶ What financial, personnel, technical, and other resources are available to support the ongoing work of a commission?

Most importantly, any government that establishes a boundary commission must have a clear understanding of what it hopes to achieve before structuring and establishing the commission. Will the commission be confined to issues related solely to boundary definition, or will it incorporate other aspects of border management? These goals do not need to be mutually exclusive. Examples will show how the work of a national or joint boundary commission on boundary definition can serve as the nucleus of greater cross-border cooperation. However, a government, together with its neighbouring governments, needs to clarify the overall aim of a boundary commission which should frame its specific responsibilities, and this could be the peaceful resolution of boundary definition and the development of cross-border cooperation. These constitute the two central tenets of the African Union Border Programme.

2.2 Structures of boundary commissions

Today, the structures of most boundary commissions around the world follow two general models. The first model is the bilateral or joint commission model that includes representatives from both neighbouring states. The second model is the national boundary commission, which serves as an agency or department within the domestic administration of a national government. The national boundary commission model is relatively recent and has become a popular structure to support the work of joint boundary commissions. Therefore the two models are not mutually exclusive. As will be outlined below, this combination of joint and national commissions is particularly popular in South America and Africa.

2.2.1 Joint or bilateral boundary commissions

Joint or bilateral boundary commissions represent the traditional model for boundary commissions and include representatives from both neighbouring states. States around the world continue to establish joint commissions because boundary issues require the direct or indirect consent of both neighbouring states. Today, there are broadly three types of joint boundary commissions:

- ▶ Temporary joint commissions;
- ▶ Permanent joint commissions;
- ▶ Occasional joint commissions (linking with national boundary commissions).

Temporary joint commissions

Similar to the historical boundary commissions, neighbouring States establish temporary joint commissions in order to accomplish a specific project, usually a demarcation. Then the commission is dissolved upon completion. They usually have a strictly technical mandate like surveying and demarcating a specific boundary section and producing a final report to be adopted by the two neighbouring states. Normally, temporary joint commissions will include appointed commissioners from each state who lead their respective delegations, which may include administrative staff, technical teams and other experts. This staff may be drawn from the domestic ministries of both states and may also include external contractors or experts. Whatever the structure, the key distinction is that these commissions are disbanded upon completion of the project.

Temporary joint boundary commissions are still common in post-conflict situations, and often involve outside observers or contractors. The Iraq-Kuwait Boundary Demarcation Commission was established by the UN Secretary General following the 1991 Gulf War. It consisted of a five-member panel with one official from each of the two neighbouring states, and three independent experts appointed by the Secretary General (one who served as chairman).¹² The Commission was tasked with mapping and physical demarcation of the boundary. The United Nations additionally provided technical support.¹³ The Commission dissolved once demarcation was completed and the final report submitted. The final report provided for a subsequent mechanism for periodic maintenance of the boundary.¹⁴

Beyond post-conflict situations, temporary joint commissions have also been established recently to 'upgrade' former administrative boundaries into international boundaries. Following the dissolution of the former Soviet Union and

¹² United Nations Report of the Secretary General, S/22558 of 2 May 1991, para. 3.

¹³ Klabbbers, J 'No more shifting lines? The report of the Iraq-Kuwait Boundary Demarcation Commission' (1994) 43 *International and Comparative Law Quarterly* 904-913.

¹⁴ *Final report on the demarcation of the international boundary between the Republic of Iraq and the State of Kuwait by the United Nations Iraq-Kuwait Boundary Demarcation Commission*, 20 May 1993 (S/25811), para. 113.

Yugoslavia, several of the subsequent independent states established temporary joint commissions to improve definition of what had previously been administrative boundaries. In the early 1980s, Algeria established temporary joint technical commissions with neighbouring Niger, Mali and Mauritania to survey and demarcate several boundary pillars along their respective boundaries.

Being temporary in duration, this type of joint commission has the tendency to lose the knowledge and experience gained when negotiating and defining a specific boundary. The final report of a temporary joint commission may be accepted and ratified by the States, but unless there is rigorous documentation of the work, it can be difficult in future to understand the rationale behind the definition and to explain any ambiguities that might be found later. In addition, some temporary joint commissions may only address specific sections of a boundary, rather than its entire length, depending on their mandate and the funding/resources available to them. Both financially and politically, temporary boundary commissions appear *prima facie* to be a cost-effective structure in order to complete a demarcation project, particularly when part of a dispute resolution process. However, over time reconvening temporary commissions may prove more expensive for neighbouring States to reassemble and retrain new teams continually every few years in order to undertake additional definition or maintenance. Personnel will change from one temporary boundary commission to the next, with the accompanying loss of expertise.

Permanent joint commissions

The problems and inefficiencies of continually re-establishing new temporary joint commissions in order to address on-going definition (especially demarcation) and maintenance issues has led to the creation of permanent joint commissions. Permanent joint commissions have a similar structure to temporary joint commissions and are also created by a bilateral treaty or other agreement. This strategy is especially popular in North America where Canada, Mexico and the United States of America have created permanent joint commissions to address their respective boundary issues. Canada and the United States created a number of temporary joint commissions from 1794 until 1925 to demarcate and survey different sections of their boundary (currently the world's longest international boundary). In 1908, the two states signed a treaty that described the full length of their boundary for the first time and called for complete demarcation of the overland and water sections. It also established a joint commission to undertake comprehensive demarcation led by two commissioners, and in 1925 the two states agreed that this joint boundary commission should become permanent.

Similarly, the International Boundaries and Water Commission (IBWC) between Mexico and the United States was made permanent in 1889 after a series of temporary joint commissions were sent to define and demarcate separate sec-

tions of the boundary throughout the nineteenth century.¹⁵ Initially called the 'International Boundaries Commission', this permanent commission between Mexico and the US was responsible for resolving disputes related to the shifting river boundary sections, largely concentrating on the Rio Grande which forms almost two-thirds of the total boundary length. The IBWC is also responsible for re-demarcation, repair and maintenance of the overland boundary sections west of El Paso to the Pacific coast. Mexico also has permanent boundary and water commissions (*Comisiones Internacionales de Límites y Aguas*, CILA) with neighbouring Guatemala and Belize that are similar in structure and mandate to the IBWC.

The permanent joint boundary commissions in North America are all effectively autonomous international bodies and have a similar structure that is largely derived from historical temporary joint commissions. These are relatively simple organisations led by two commissioners, usually appointed by their respective heads of state. In the case of the Canada-U.S. IBC, the Canadian commissioner is appointed by an Order-in-Council and has traditionally been the Surveyor General of Canada. The U.S. President appoints its Commissioners to both the IBC and IBWC. Because they are appointed representatives, the commissioners of these permanent joint commissions effectively represent their respective states in direct negotiations. The commissioners are assisted by deputy commissioners who liaise directly on a regular basis, as well as small permanent administrative staff. The national delegations also often include permanent or *ad hoc* experts as well as field teams, often recruited locally, who work together seasonally, as illustrated in Figure 1.

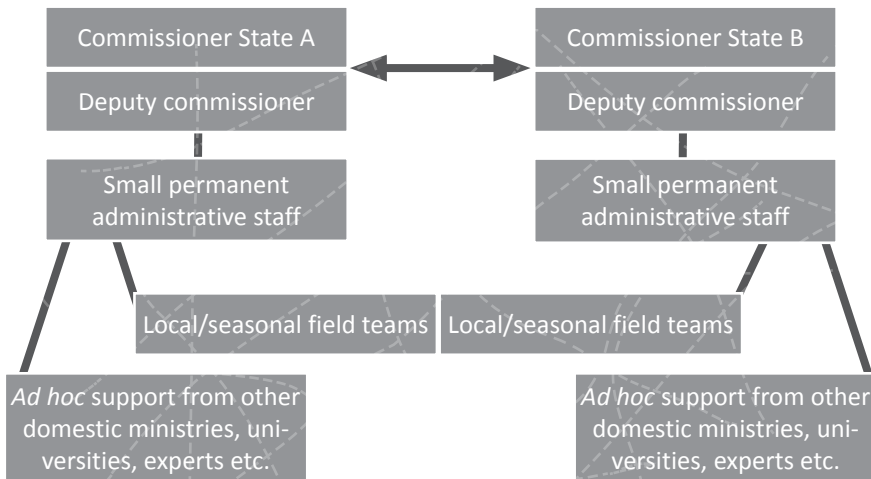


Figure 1: Typical structure of a permanent joint boundary commission

¹⁵ This was largely a result of the frequent shifting of the Rio Grande and Colorado river boundary sections. See the Convention of 29 July 1882 and the Convention of 12 November 1889 (www.ibwc.gov/Files/TREATY_OF_1889.pdf).

Joint boundary commissions are established through bilateral agreements or treaties between neighbouring states that will describe their mandates. For both the IBC and IBWC, their mandates and responsibilities have been revised and adjusted through subsequent agreements and in official minutes. For example, the original mandate of the Canada-U.S. IBC in 1908 was to complete demarcation and mapping of the described boundary. This was expanded in 1925 to include permanent on-going maintenance of the boundary, and in 1985 the International Boundary Commission Act gave the IBC authority to regulate any infrastructure within ten feet (three metres) on either side of the boundary line. The IBC has to approve the construction or improvement of any infrastructure within this 'vista'. So the mandates and authority of both the IBWC and IBC have changed over time in order for the commissions to address relevant boundary issues that have emerged.

Creating permanent joint commissions through fully ratified bilateral treaties provides significant political and legal support to the commission, usually confirming that both neighbouring states will accept the work of the joint commission as binding. In the case of the IBWC, Article 8 of the 1889 Mexico-U.S. Convention that established the commission states that: "If both Commissioners shall agree to a decision, their judgment shall be considered binding upon both Governments..." Rather than having to ratify every decision of the commissioners as separate treaties, in practice the decisions (or 'minutes') agreed by the two commissioners of the IBWC have been accepted by both states effectively as extensions of the original treaty. There have been 318 minutes accepted since 1922, some of which relate to the maintenance of specific boundary pillars and some to the management of transboundary waters, including engineering works (see also Section 3.4.2).¹⁶

Having the mandate of a joint commission enshrined in a binding bilateral treaty gives the commissioners a strong degree of authority to fulfil its obligations. A treaty is a formal diplomatic instrument that often requires complex ratification processes within both states before it comes into force.¹⁷ Joint boundary commissions may also be set up with less formal bilateral arrangements, such as 'memoranda of understanding,' which may not require formal ratification by the two states. Depending on the wording and legal status of such arrangements, this usually suggests that the decisions of the commission would not be binding on the two parties. In this respect, a joint commission may effectively only provide advice to their respective governments on boundary issues, rather than having the mandate to actively make decisions.

¹⁶ See IBWC website: www.ibwc.state.gov/Treaties_Minutes/Minutes.html.

¹⁷ Each individual state will have its own procedures for ratification of international treaties depending on its domestic law.

Occasional joint boundary commissions

For a state such as the United States with only two (albeit very long) international boundaries, having a permanent joint commission for each boundary provides an efficient means of organising maintenance, and dealing with boundary issues. Given its vast length, the on-going responsibilities for clearing the vista and maintaining pillars and marks along the Canada-U.S. boundary require permanent attention. However, for states that have multiple neighbours, some international boundaries may be significantly shorter than others and may require less frequent attention. Governments with limited resources may find it difficult to support permanent joint commissions, including permanently active staff, with every neighbouring state, particularly when they may only share a relatively short land boundary. This situation is more commonplace in areas such as Africa and South America where a different approach to boundary commissions has developed in response. Several states in these regions have established joint commissions with all of their neighbouring states which might be referred to as 'occasional joint commissions.' While these commissions may be notionally permanent with named commissioners, in practice they may not be active every year and so may not have permanent core staff. In some years, one joint commission may be more active than another, possibly in relation to a specific demarcation or maintenance project.

'Occasional' joint boundary commissions can be established just like a permanent joint commission, through a bilateral treaty or agreement and with a similar mandate. The difference will be that while a permanent boundary commission will have permanent staff in each neighbouring state with on-going work commitments, occasional joint commissions rarely have permanent staff. Instead, occasional joint commissions may only have an identified commissioner from each state who remains the permanent contact point, but staff, personnel and resources may be increased or decreased according to the level of activity of the joint commission. For example, a joint commission may be established to complete demarcation of a specific boundary, requiring significant resources. Once the demarcation project is completed, the joint commissioners remain in their posts and continue to communicate. However, it may be several years before the next maintenance project (to review the demarcation), so the staff and resources could be reallocated by each national government to other boundaries for other projects. In order to facilitate this type of rotating support of occasional boundary commissions, several states have created national boundary commissions.

2.2.2 National boundary commissions

National boundary commissions have emerged in recent decades as an increasingly popular structure, in part to support the work of multiple joint commissions. As Section 3 will illustrate, the tasks of recovering, demarcating, mapping and delimiting an international boundary require significant resources that may not be available to any single government ministry or department. As noted by the former surveyor general of Cameroon, M. Ali Touré, the main motivation for creating Cameroon's National Boundary Commission was to coordinate resources

and expertise across a variety of government ministries and departments.¹⁸

In addition, if a single state has multiple international boundaries, it may be more cost effective to have a single national boundary commission rather than maintaining multiple permanent joint/bilateral commissions with each neighbouring state. However, as the African and South American examples will illustrate, a national boundary commission does not need to replace joint boundary commissions; often, it is a structure that is used to coordinate and focus resources in support of joint commissions.

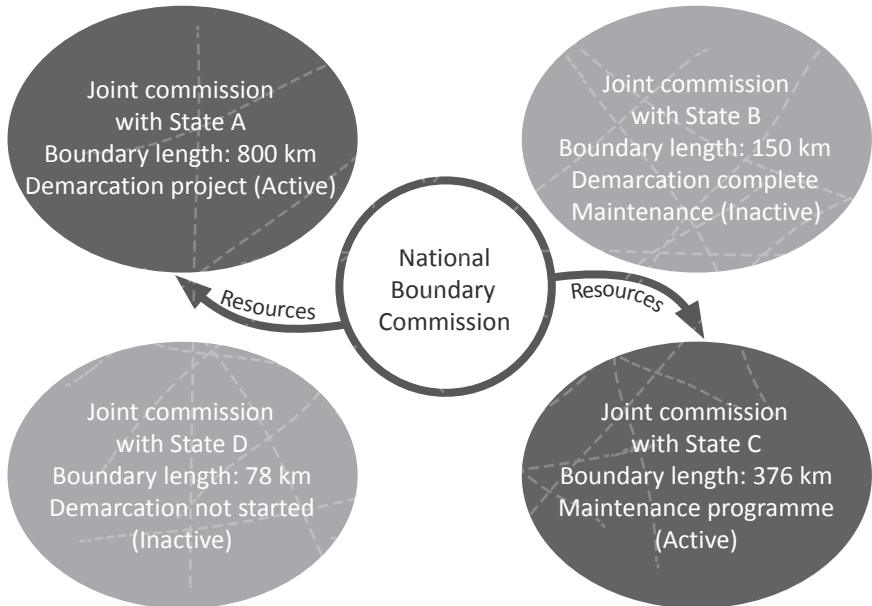


Figure 2: Model of a national boundary commission directing resources in support of occasional joint commissions

Since there are very few states worldwide with the resources to maintain full scale boundary definition operations with neighbouring states simultaneously, the national boundary commission structure allows limited resources to be directed to specific boundaries as and when they are needed. The fictional scenario in Figure 2 illustrates how a state with a national boundary commission directs resources to joint boundary commissions when projects are active. National boundary commissions are usually structured either as a division confined to a specific ministry or department or as an independent government agency.

Since boundary-related issues involve contact with neighbouring state governments, it is common for a national boundary commission to be part of the min-

¹⁸ Touré, A., Response to AUBP questionnaire, 14 September 2011.

istry of foreign affairs or external relations. This is particularly the case in South America where both Brazil and Argentina have internal departments dedicated to international boundary issues situated within their respective ministries of external affairs. The Brazilian *Divisico de Fronteiras* (Boundaries Division) is a good example of this model structure. Situated exclusively within the Ministry of External Relations, the division is organised into two commissions, the *Primera* (PCDL) and *Segunda* (SCDL) *Comissão Demarcadora de Limites* which are each responsible for supporting joint/bilateral commissions with six and four neighbouring states, respectively (see Figure 3). The PCDL coordinates activities of joint commissions on Brazil's northern boundaries and the SCDL coordinates activities of joint commissions on the southern boundaries. The leaders of the PCDL and the SCDL both report to the Sub-Secretary General for South America, Central America and the Caribbean who then reports to the Foreign Minister. Similarly, Argentina's *Dirección de Límites y Fronteras* is also organised within the Ministry of External Relations, under the Sub-Secretary of Latin American Political Affairs.

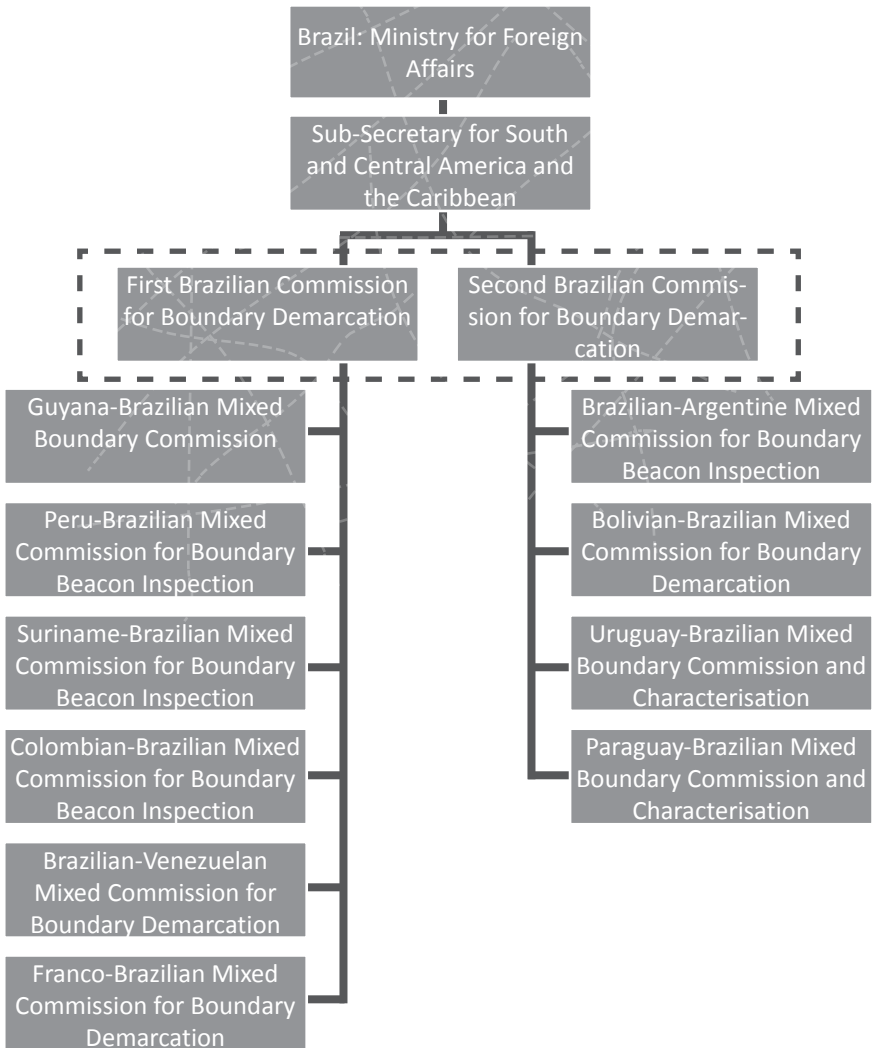


Figure 3: Brazil's Divisico de Fronteiras

Creating a national boundary commission as an executive department within a single ministry is usually bureaucratically straightforward since it does not require new legislation. Brazil's PCDL and SCDL can request support from other ministries or departments (military, survey, etc.) and external experts, but its work falls within the budget and administrative structure of the Ministry of External Relations. This means that boundary demarcation and maintenance projects are subject to the budgetary constraints of the ministry itself and must compete with other ministerial commitments for funding. In addition, since the boundaries division is organised within the Ministry of External Relations, experiences in Brazil have shown that even relatively minor local boundary questions or problems have to be processed through the full administrative framework of the ministry and through the standard diplomatic channels with neighbouring states. As a result, any decisions or required actions related even to minor local boundary issues could assume foreign policy significance and be slow to materialise.

The national boundary commissions in some African states reflect similarities with the South American model in that they are permanent, internal government agencies that support the work of the individual joint boundary commissions. For example, Mali's *Commission Nationale des Frontières* (CNF) is organised within the Ministry of Territorial Administration (see below). However, being led by an inter-ministerial panel, the CNF has the ability to call on the resources of other internal government agencies to support its work. Algeria has recently established a national boundary commission set up within the Ministry of Foreign Affairs. However, it is also led by an inter-ministerial panel and has its own dedicated budget.

Nigeria's National Boundary Commission (NBC)

Created in 1987 and inaugurated in 1988, Nigeria's National Boundary Commission (NBC) is the forerunner of national boundary commissions in Africa. It was structured in part to avoid the complications associated with being subordinated to a specific ministry. Instead, the NBC is an independent government agency within the Office of the President of the Federal Republic. The Vice President of the Republic serves as chairperson of an inter-ministerial committee that oversees the work of the NBC. This committee includes ministers from various government departments and agencies. The ministerial panel may also include (as *ad hoc* members) the governors of federal states along international boundary sections that may be addressed at a particular time. The NBC is led by the Director General who reports to the inter-ministerial committee and whose office includes several administrative units. The NBC currently has seven departments dealing with a variety of border issues, including: Research and Policy Analysis, Border Regions Development, Legal Services, International Boundaries, Internal Boundaries, Maritime Services and Geo-information, and an Administration and Supplies Department.

Resolution of internal boundary disputes constituted a key motivation for establishing the NBC.¹⁹ However, in the first decade of its existence the NBC tended to concentrate largely on international boundary issues and established joint boundary commissions with neighbouring Niger, Benin, and Cameroon and in the Lake Chad Basin. The NBC was also instrumental in resolving the boundary dispute with Cameroon that culminated in the 2002 Decision of the International Court of Justice (ICJ). It currently supports the Nigerian contingent in the Cameroon-Nigeria Mixed Commission tasked with implementing the Decision by undertaking the comprehensive survey and demarcation of the boundary. With both international and internal boundaries addressed within the same organisation, the NBC provides the framework for coordinating activities and sharing information and experience. This has meant that knowledge and expertise gained on international boundary issues has been useful in advising on internal boundary disputes.

Initially, the Nigerian NBC was created with a mandate to intervene and assist the government in resolving both international and internal boundary disputes, and to advise the government on boundary-related matters.²⁰ It was created to replace the previous system of uncoordinated *ad hoc* commissions established to deal with specific (largely inter-federal state) boundary disputes.²¹ The original three core departments were: the Research and Policy Department that collected and documented relevant boundary information; the International Boundaries Department, which supported the work of joint commissions with neighbouring states; and the Internal Boundaries Department, which advised on internal boundary disputes. As so much progress has been made in resolving international boundary issues, the NBC now spends the majority of its time advising on internal boundaries. Indeed, each federal state in Nigeria now has its own state-wide boundary commission modelled on the national NBC.

¹⁹ See especially Barkindo, B.M. ed., *Management of Nigeria's Internal Boundary Questions* Lagos: National Boundary Commission/ Joe-Tolalu & Associates Ltd, 1993.

²⁰ Ahmad, M.B. 'The National Boundary Commission of Nigeria 1987-2007: The Milestone Score-Cards in the International Boundaries Arena' in Akinyeye, Y. ed. *That They May Be One: African Boundaries and Regional Integration, Essays in Honour of Professor Anthony I. Asiwaju Imeko*: African Regional Institute, 2008.

²¹ Ahmad, 2008. p. 239.

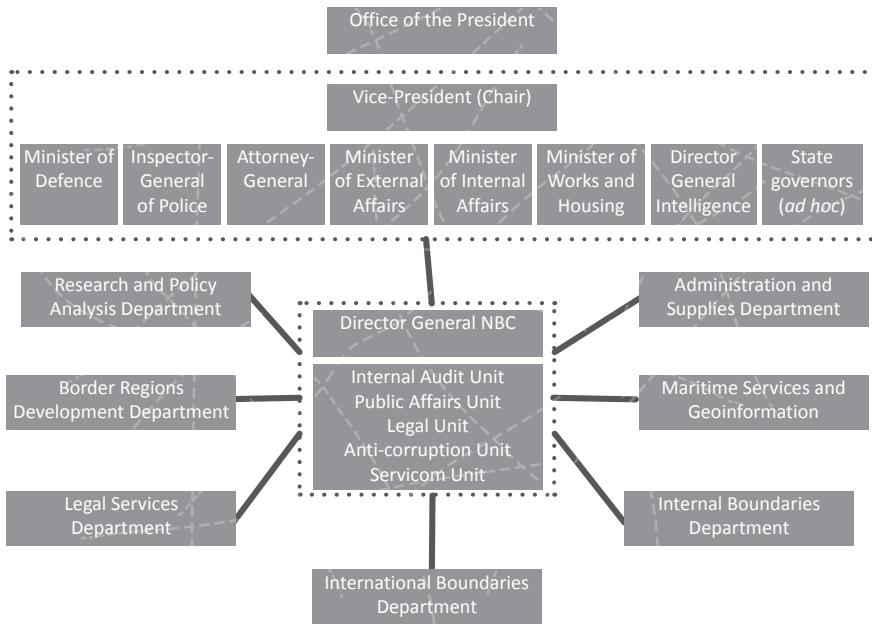


Figure 4: Nigeria's National Boundary Commission

Although the initial focus of the Nigerian NBC was on disputes related to the definition of boundary lines, co-founder and the first director general, Professor Anthony Asiwaju, created the NBC partly in response to what he saw as the restricted mandate of the permanent joint commissions in North America.²² He felt that the limited focus on technical issues of demarcation and maintenance was not sufficient to encourage greater cross-border cooperation, particularly among local border communities. Given the close interaction between neighbouring border communities around Africa, this is essential for long-term peace building beyond just preventing disputes over boundary definition. Likewise, in 2006 the government of Nigeria passed a new National Boundary Commission Act that replaced the original 1987 legislation and expanded the mandate of the NBC to promote development in borderland areas. Moving beyond issues related only to the definition of boundary lines, the NBC now has authority to create new departments such as the new Directorate of Border Regions Development that undertake initiatives aimed primarily at cross-border cooperation.

²² Asiwaju, A.I. 'National Boundary Commissions as Problem-Solving Institutions: Preliminary Notes on Nigeria, Niger and Mali' in *International Boundaries and Boundary Conflict Resolution: Proceedings of the IBRU Conference, 14-17 September 1989* Durham: International Boundaries Research Unit, University of Durham, 1989. pp. 19-20.

Mozambique's *Instituto do Mar e Fronteiras (IMAF)*²³

The Government of Mozambique established its Instituto do Mar e Fronteiras (IMAF) by a Presidential Decree on 3 July 2001. Under this decree, an Inter-ministerial Commission for the Sea and Boundaries was created as a separate presidential level organ of the main governmental Council of Ministers, with the Prime Minister of Mozambique serving as its chair and the Minister of Foreign Affairs and Co-operation as primary mentor. A number of additional ministers sit on the Inter-ministerial Commission (including the Ministers of Interior, Defence, State Administration, Agriculture, Fisheries, Transport & Communication, Mineral Resources, Environmental Coordination, Justice, Finance and the Minister at Presidency for Diplomatic Affairs), which acts as the main governing body for IMAF. Under the Inter-ministerial Commission are two councils, a consulting council and a technical council, which in turn advise the three main IMAF directorates which complete the institutional level of the boundary commission. The three directorates are led by the IMAF President who reports to the Inter-ministerial Commission, and each directorate heads its own technical commission.

The Directorate of the Sea oversees a Commission of Experts for the Delimitation of Maritime Boundaries, responsible for negotiations with neighbouring maritime states on boundary delimitation. The Directorate of Boundaries includes a Commission of Experts for Re-affirmation of Continental (Land) Boundaries, which is responsible for re-affirming and interpreting previously delimited land boundaries, and to undertake demarcation and maintenance. The Directorate of Legal Affairs, Studies and Information acts as the main body for gathering and documenting relevant boundary information as well as undertaking any additional research. This Directorate also includes a Commission of Experts for Delimitation of the Continental Shelf, which is responsible for preparing Mozambique's submission concerning its continental shelf margin 200 nautical miles beyond its coastal baseline to the United Nations Commission on the Limits of the Continental Shelf (CLCS). The three directorates are supported by a logistics and administrative office as well as field teams when required, particularly on boundary re-affirmation, demarcation and maintenance programmes.

²³ See especially Mucombo, J.E. 'Demarcation and Maintenance of the International Boundaries of Mozambique' in *Boundary Delimitation and Demarcation: An African Union Border Programme Practical Handbook*, African Union and German Technical Cooperation, 2010.

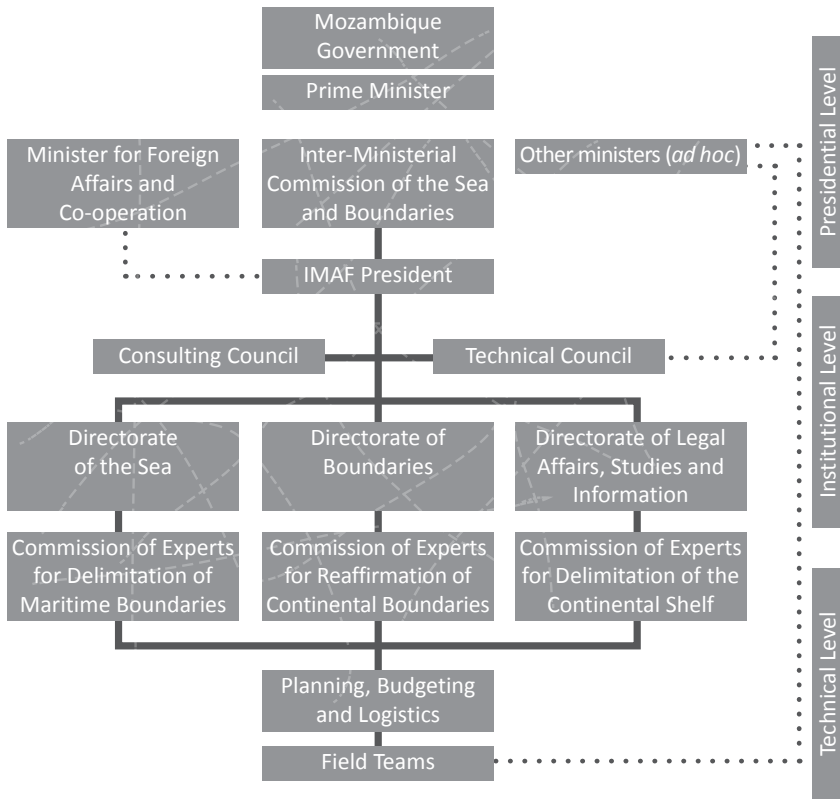


Figure 5: Mozambique's "Instituto do Mar e Fronteiras (IMAF)"

Like the Nigerian NBC, Mozambique's IMAF represents an independent public institution with its own dedicated budget and legal personality outside existing government ministries. It can, however, call upon ministerial support for its activities. The general mandate of IMAF is to coordinate and advise the Mozambique government on policies and strategies related to maritime and boundary affairs. IMAF is allowed to undertake technical negotiations with its counterparts in neighbouring states and can propose new agreements, legislation or amendments for ratification by the government. It is also responsible for maintenance of infrastructure along boundaries, including any buildings, fences and beacons or marks, and can advise on the opening and closing of border posts.

Mali's *Commission Nationale des Frontières*

Mali's *Commission Nationale des Frontières* is organised under the Ministry of Territorial Administration, although the Commission itself comprises representatives from numerous ministries and government agencies, including: the Presidency; the ministries of justice, finance, security, defence, transport and environment; the national geographical institute; the national archives; national

directors of borders, planning and territorial collectivities; and the governors of frontier regions and the presidents of frontier region assemblies. Members of the commission contribute to three sub-commissions addressing delimitation, demarcation and transboundary cooperation. The commission oversees the activities of a permanent secretariat which implements commission policies at a national level, and seven bilateral mixed commissions with neighbouring states.

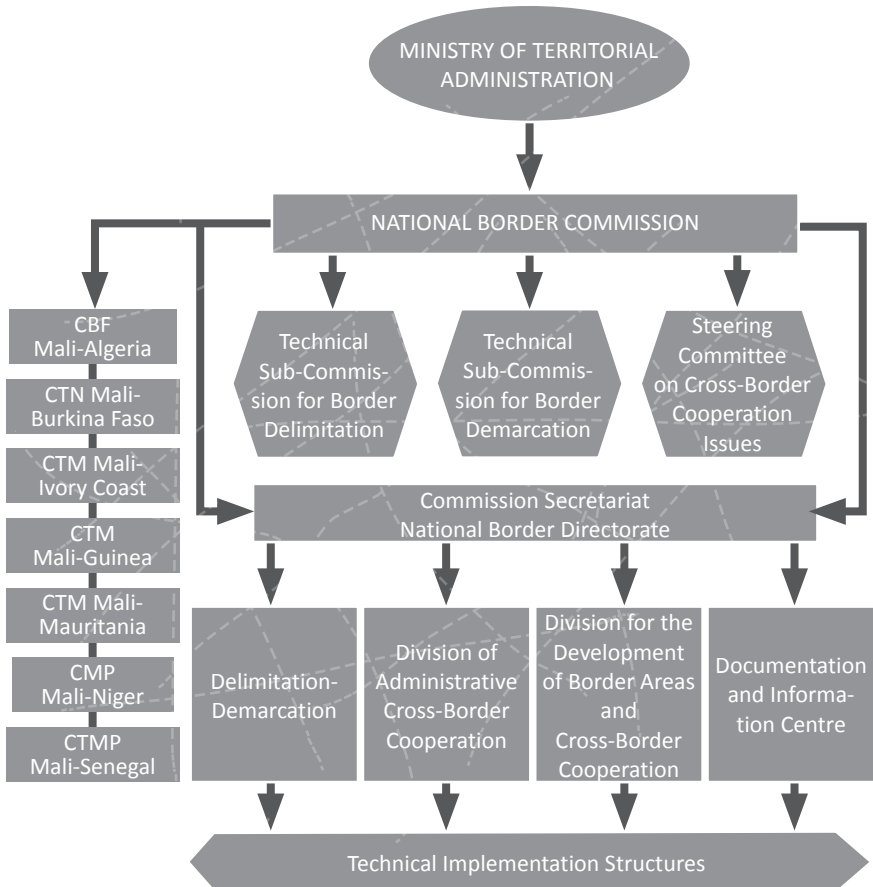


Figure 6: Mali's National Border Commission

2.3 Initiating a national boundary commission – the 2012 Namibia experience

The Namibia government approached the African Union Border Programme in 2011 requesting advice on the creation of a national boundary commission. In response, a consultative workshop was held in Windhoek 13 to 14 March 2012, facilitated by Dr Wafula Okumu of the AUBP and Dr John Donaldson from the International Boundaries Research Unit (IBRU), and hosted by the Department of Surveys and Mapping of the Ministry of Lands and Resettlement. Participants at the workshop were drawn from several ministries across the Namibian government who deal with boundary and border management related issues. Within group and plenary discussion, participants were able to explore some of the particular challenges faced by Namibia in addressing these issues, and to examine how a possible national boundary commission would be able to address those challenges.

The Surveyor General recalled that Namibia had tried to establish a national boundary commission in 1997. However, an informal structure without a dedicated staff and lack of interest led to the commission becoming moribund just a year later. Based on discussion, the participants at the workshop examined four key challenges that motivated the creation of a new Namibian national boundary commission: lack of coordination, lack of centralised information gathering/storage, lack of institutional memory and internal boundary problems. First, it was revealed that Namibia has a number of joint commissions with its four neighbouring States dealing with boundary issues. However, Namibian representation in these joint commissions was spread over four ministries including the Ministry of Lands and Resettlement, Ministry of Justice and the Ministry of Foreign Affairs.²⁴ This had led to a lack of coordination on boundary activities and likely a duplication of efforts and resources.

It was also indicated that there was no central location where all information related to boundary definition, such as treaty texts, maps, demarcation reports and survey records, was being collected, documented and retained. Officials from different joint commissions and across several ministries in the Namibian government sought out archive material on an *ad hoc* basis, again with significant duplication of effort and confusion across ministries. Without a central coordinating body or repository of information, participants also raised the problem that no mechanism existed for retaining institutional knowledge. Since all of the Namibian representatives to joint commissions were left uncoordinated, officials had no formalised channel to share their experience and expertise. As personnel rotated in and out of joint commissions, knowledge and expertise would easily be

²⁴ Presentation of the Surveyor General of Namibia, Mr U. Okafor, 14 March 2012.

lost without a strategy for documenting and sharing that knowledge both within the Namibian section of individual joint commission and across to Namibian representatives on other joint commissions.

While some outstanding issues remain related to the definition of their four international boundaries, the workshop participants indicated that a major problem within Namibia relates to internal boundary questions, particularly the boundaries of traditional lands. As examined in Section 2.2.1, the Nigerian NBC was created to examine and resolve boundary disputes including those within Nigerian territory (i.e. inter-state boundaries). The evolution of the Nigerian NBC reveals that knowledge and expertise gained on international boundaries can assist in the resolution of internal boundary questions, even though such issues are guided by domestic rather than international law. With this in mind, workshop participants in Windhoek saw the relevance of a national boundary commission in helping to resolve internal disputes based on experience gained in international boundary practices.

Workshop participants also recognised the role a national boundary commission might play in coordinating other aspects of border management such as transboundary water and resource management, improving infrastructure and streamlining procedures at border crossing points, as well as promoting cross-border cooperation. As a centralised body, a national boundary commission might be able to facilitate information sharing across the various ministries and agencies responsible for these aspects of border management. The IBRU recommended that other existing bilateral and multilateral commissions dealing with transboundary management issues (such as the Orange River Basin Commission) could be integrated within a more expansive national boundary commission framework. However, participants felt that these were longer term aims and recommended that a national boundary commission be created initially to address only issues related to the definition of international and internal boundaries.

The general consensus at the Windhoek meeting held that a smaller-scale national boundary commission could form the nucleus of a larger commission that might develop in future, perhaps along similar lines to the Nigerian NBC. Based on contributions from workshop participants, the AUBP advisors recommended a relatively simple national boundary commission structure with four small departments including a legal office, international boundaries department, internal boundaries department and a research and analysis department. Focussed on the recovery, definition and maintenance of international and internal boundaries of Namibia, the mandate of a possible Namibian national boundary commission will address the four initial major concerns raised at the workshop. If this structure and mandate proves successful in coordinating boundary activities and resolving disputes, it may evolve in the future to integrate other elements of cross-border cooperation.

2.4 Typical structures and mandates of national and joint commissions in Africa

Existing national boundary commissions in Africa have been established largely to support the work of joint commissions set up with neighbouring States. While the structures of national boundary commissions are fairly well-known, it is more difficult to outline the typical structure of joint commissions because they tend to vary more widely. This section will look first at the typical structure of national commissions and then explore how they tend to link with joint boundary commissions. It will then discuss some good practice guidelines for creating a mandate for both national and joint boundary commissions.

Although there are variations in the examples explained above, it is possible to identify a typical structure of national boundary commissions based on current African practice. This includes three basic levels: ministerial, management and operational.



Figure 7: The typical three-level structure of African boundary commissions

Some national commissions in Africa, such as in Mali and Algeria, are organised within a specific ministry but, as has been explained, they are more commonly created as independent agencies usually organised under the office of the head of state. Although the Mali and Algerian commissions are not independent of specific ministries, they are structured in such a way as to draw on support from other ministries. All known national boundary commissions in Africa are headed by a ministerial council that includes the ministers of several government departments who can support and participate in boundary related activities. Typically this would include the ministers of external relations, interior, survey and legal affairs, but their exact make-up will vary from government to government. The inter-ministerial council provides a national boundary commission with political support and the ability to coordinate resources from across different agencies. It is usual for the ministerial council to meet once or twice a year in order to review

the work of the commission and approve the budgets and work plans for upcoming years.

The managerial level of a national boundary commission usually includes the director-general/president of the commission and the heads of the respective departments, depending on the structure. Rather than being government officials with other responsibilities seconded to the commission on a part-time basis, it is important for officials at the managerial level to be contracted solely to work within the commission. These officials are responsible for creating and implementing work plans for their respective departments and overseeing day-to-day operations so their continual engagement is important to keep up momentum. The president/director-general of the commission coordinates the activities across the departments and provides the direct link to the ministerial council. Based on work within its departments, the managerial body will also submit reports and recommendations to the ministerial council for approval, or (in the case of an international agreement) for ratification by the government. Ideally, the managerial body of the national boundary commission should be a 'legal entity' allowing it to agree contracts with external organisations. This will be outlined in the mandate of the national boundary commission.

Within the typical structure of a national boundary commission, the managerial level includes the head of a legal department, a director of research and archiving, and heads of international and/or internal boundary departments all alongside the president/director-general of the commission. It is also likely that the commissioners or technical leaders of joint boundary commissions with neighbouring States are positioned within the managerial level of a typical national boundary commission. For example, the current head of the International Boundaries Department within the Nigerian NBC and also serves as technical leader of the Nigerian section in the Cameroon-Nigeria Mixed Commission.

The third or 'operational' level of a national boundary commission normally includes those technical personnel engaged in research, archiving, fieldwork or other technical work. There may be permanent technical staff in the departments undertaking on-going research, or there may be technical teams put together just for specific projects, such as field teams for survey and demarcation work. It is also common for experts and technicians to be brought in from external organisations such as universities in order to undertake a specific research or project(s).

2.4.1 **Linking national and joint boundary commissions**

Under the typical African structure of having a national boundary commission supporting joint commissions, the structures of joint commissions vary more widely. These are normally 'occasional' joint commissions that may exist – on paper – on a permanent basis but are activated less frequently, usually to complete a specific demarcation or maintenance project. Many joint commissions are led at the ministerial level by two commissioners who are often the respective ministers of foreign affairs. Cameroon maintains a '*Grande Commission Mixte Bi-*

latérale' with all six of its neighbouring States. The Minister of External Relations leads the Cameroonian delegation in each of these commissions.²⁵ In other cases, the national commissioners leading their delegations may consist of technical experts or surveyors but it is more common for the technical leaders of respective national contingents to be deputy/vice commissioners. Since ministers have numerous responsibilities beyond the work of a joint boundary commission, it is normal for the technical leaders to negotiate with their counterparts and organise recovery, survey, and demarcation work.

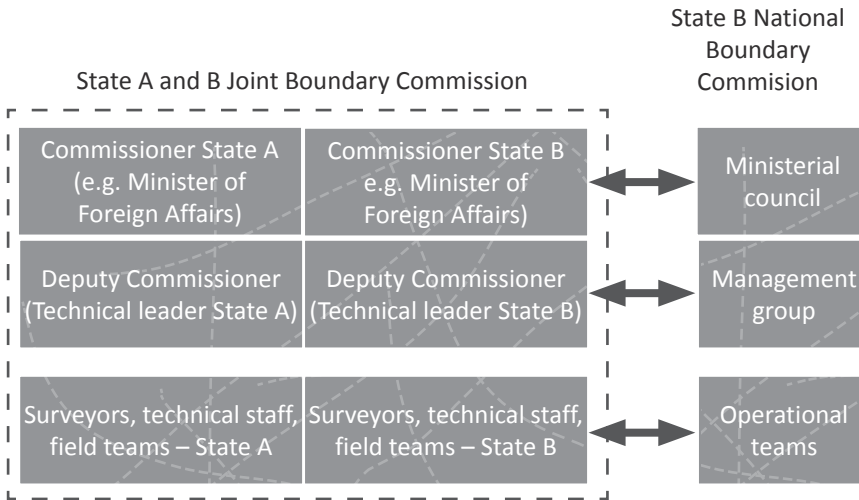


Figure 8: Linking joint and national boundary commissions

Figure 8 charts how the representatives in a joint boundary commission would be drawn from the typical three-tier structure of a national boundary commission when the joint commission is active on a recovery, demarcation or maintenance project. If a specific minister is named as commissioner, it is likely that minister will also sit on the ministerial council of the national boundary commission. If there is a deputy commissioner or technical leader in a joint boundary commission, they may sit within the managerial group of the national boundary commission. The surveyors, technicians and researchers who undertake the projects and work of joint commissions may be drawn from the operational teams in the national boundary commission.

2.4.2 Mandates of national and joint commissions

Whatever structure is chosen for national and joint boundary commissions, the success of their work will depend on the mandate or authority given to the commission in order to fulfil its responsibilities. This begins with the type of legislative instrument or agreement that is used to create the commission. For na-

²⁵ Touré, 2011.

tional boundary commissions, the type of law, act, or decree that establishes the commission will depend on the domestic legislative structure. As already noted, several national boundary commissions in Africa have been created under presidential or executive decrees, usually due to the fact that they are organised as independent agencies of the executive branch, so positioned outside existing ministries. Where an executive decree is not available, a national boundary commission might be established through an act of parliament. Although these are fairly formal domestic instruments, they are strong and stable documents that reflect the seriousness with which a government views the work of a national boundary commission. A national boundary commission that is mandated by an act of parliament indicates a strong degree of political support and more likely to remain intact through the long term.

Joint boundary commissions are normally created by a bilateral agreement between neighbouring States. Usually this will be in the form of a ratified treaty, but joint commissions may also be created through less formal agreements such as memorandums of understanding (MoU) or 'gentlemen's' agreements. Formal ratified treaties show that neighbouring States are strongly committed to the work of a joint boundary commission, whereas joint commissions set up by informal MoUs may be more easily dissolved and suggest that the participating governments are more ambivalent about the commission's work. Depending on the wording of the mandate, joint commissions created by ratified treaties can be endowed with a strong degree of authority, often indicating that both states agree to accept the decisions of the joint commission.

The strength of the mandate or authority of the national or joint commission is derived from the wording of the legislative act or treaty. National and joint commissions under weaker mandates will see little or no responsibility transferred to them, often just serving in an advisory role and unable to undertake any direct action. For national boundary commissions, this could mean that the commission would simply 'assist' or 'advise' the ministry of foreign affairs, providing 'recommendations' rather than undertaking any negotiations and making decisions on its own. Even seemingly minor phrasing can strengthen the mandate of a commission, such as the distinction between a commission being able only to 'request' information from various sources versus a commission that is able to 'demand' information. Using weaker operative terms such as 'promote' or 'recommend' indicates that there is no transfer of direct responsibility to the commission. Under this type of weaker mandate, the national or joint commission simply works to gather information and advise other government actors who then make decisions, hopefully based on the advice of the commission. Weaker mandates can slow the progress of a commission's work as decisions are referred to other officials for confirmation.

A stronger mandate gives direct responsibilities to the national or joint commission, empowering it to make decisions on behalf of the government(s) involved. This would include giving the commission legal personality to allow it to enter into contracts independently with external partners. More direct language such

as: “the commission shall have jurisdiction over”²⁶ or “shall have the power to” gives a commission more direct responsibility for the activities it is intended to undertake. Even if a national or joint commission is given an ‘advisory’ role and not mandated to make decisions directly, it would be beneficial to outline a direct channel for its recommendations to be implemented by the government(s) involved. The purpose of creating a national or joint boundary commission is to concentrate a government’s knowledge and expertise on boundary related issues into a central body. Therefore, the recommendations of such a commission should be viewed as credible, appropriate, and be taken seriously in domestic implementation.

For joint boundary commissions, a stronger mandate provides the commission with flexibility to address any ambiguities or contradictions that may be found in the definition of a boundary. Constricting a joint commission to defining a boundary precisely as it is described in a specific historic treaty/document can prove highly problematic. As noted in the introduction, it is likely that a joint boundary commission will encounter contradictions and problems on the ground when interpreting the definition of the boundary. Therefore, it may be sensible to give the joint commission authority to make adjustments to the line. The 1927 Anglo-Belgian Agreement established the mandate and technical parameters for the subsequent boundary commission to demarcate what is now the DRC-Zambia boundary. The Agreement included a beautifully-worded mandate statement that:

The Commissioners shall have the authority, generally, to make such minor rectifications and adjustments to the ideal watershed (boundary) as are necessary to avoid the troubles which might arise from a literal interpretation of the treaty.²⁷

While mapping and geographic knowledge has improved significantly, the description of many boundaries has not, so providing boundary commissioners with a degree of latitude to interpret the definition in relation to local conditions is important for achieving an acceptable line.²⁸ It has been common for agreements to specify that commissioners can adjust the line up to a specified distance.²⁹ It has also been common for boundary commissioners to make adjustments along the boundary in order to transfer an equal amount of territory to both sides. In this regard, the commission can report to their respective governments that no territory has been gained or lost overall.

²⁶ Article VIII of the 1909 Canada-U.S. Water Treaty establishing the International Joint Commission and its mandate to regulate activity along boundary watercourses is a good example of strong mandate language.

²⁷ *Exchange of Notes between Great Britain and Belgium in regard to the Delimitation of the Boundary between Northern Rhodesia and the Belgian Congo*, 4 April and 3 May 1927.

²⁸ See especially Rushworth, D. ‘Mapping in support of Frontier Arbitration: Delimitation and Demarcation’ *Boundary and Security Bulletin* Vol. 5, no. 1, International Boundaries Research Unit, University of Durham, 1997.

²⁹ An Argentina-Chile demarcation commission was given 300 metres latitude under the 1966 Award for the Arbitration of a Controversy between the Argentine Republic and the Republic of Chile, Queen Elizabeth II (Palena Award), 1966.

2.4.3 Frequency of meetings

The constituting agreement or legislation outlining the structure and mandate of a national or joint commission should also determine the minimum number of meetings to be held by the operative bodies. As already noted, the government of Namibia created a national boundary commission in 1997. However, inconsistent meetings bred a lack of enthusiasm which eventually led the dissolution of the commission. National boundary commissions should have permanent staff at the managerial level, but it is important that the inter-ministerial council or equivalent meets at least twice a year. Although it is difficult to coordinate the schedules of several ministers, the inter-ministerial council lends its political support and momentum to the work of the national boundary commission, so its enthusiasm is essential.

For joint commissions, it is important that the lead commissioners from neighbouring States meet once or twice a year, even if no work is being undertaken on their specific boundary. During years when active survey, demarcation or maintenance work is being undertaken, commissioners will meet more frequently and technical leaders will be working closely together. Around the world, commissioners on joint boundary commissions have strongly emphasised that the key to successful boundary work has been the inter-personal relationships within the commission.³⁰ Meeting regularly, joint commissioners or technical leaders often develop a strong degree of trust which is absolutely essential for successful completion of boundary work and the long-term peaceful management of an international boundary. A good structure and proper mandate give a national or joint commission the tools to achieve its aims, but it is the personnel within the commissions that really determine whether or not a commission becomes successful.

2.4.4 Dispute resolution

A dispute resolution clause is an important aspect of a joint commission's mandate. In essence, a joint boundary commission is established to negotiate and is ideally placed to resolve any disputes or problems. However, there may be some disputes that cannot be resolved by a joint commission despite its best efforts. When there is an intractable dispute over a boundary section, it is useful if the joint boundary commission can continue its work on other sections where there is greater consensus. It is not advised that a joint commission completely stop its work when faced with a particular question that it cannot resolve immediately. It is best to continue the dialogue and build confidence on other sections of the boundary.

³⁰ This was emphasised in the International Symposium on Land and River Boundaries Demarcation and Maintenance in Support of Borderland Development, Bangkok, Thailand, 7-11 November 2006; Second International Symposium on Land, Lake and River Boundaries Management, Maputo, Mozambique, 17-19 December 2008 and the Organisation for Security and Cooperation in Europe (OSCE) Seminar on Applied Issues in International Land Boundary Delimitation/Demarcation Practices, Vilnius, Lithuania, 31 May-1 June 2011.

The agreements establishing a joint boundary commission usually contain clauses on dispute resolution mechanisms.³¹ Some may simply state that when the commission cannot resolve a particular issue, it will be referred to the two governments for negotiation. This type of mechanism is unlikely to resolve the dispute quickly, since the joint commission itself will usually be best placed and informed on the specifics of the dispute and may unnecessarily raise a minor boundary incongruence to a foreign policy issue.

Failing bilateral agreement to resolve a dispute, States may resort to various forms of third-party dispute resolution mechanisms, which can include but are not limited to mediation, conciliation, adjudication and arbitration.

Mediation: Mediation relies on a third party, such as the UN Secretary General or a regional organisation, to facilitate and monitor negotiations. The role of the mediator can be indirect, just serving as the channel for negotiations, such as the UN Secretary General (and appointed mediator) whose offices have been used to continue talks between Equatorial Guinea and Gabon in the dispute over islands and the maritime boundary in Corisco Bay. The mediator can also be more directly involved, facilitating dialogue and making recommendations, as is currently the situation of former South African president Thabo Mbeki whose AU-supported panel is mediating dialogue between Sudan and South Sudan. Whatever his/her capacity, a mediator is not empowered to make binding decisions about a dispute, simply to facilitate resolution through bilateral agreement.

Conciliation: More formally, a dispute may be referred to conciliation, which involves a panel of independent experts reviewing the details of the dispute and submitting non-binding recommendations to the disputant parties that may or may not be accepted.

Adjudication and arbitration: The most formal dispute resolution mechanisms are binding adjudication and arbitration. There are a number of well-known African boundary disputes that have been submitted to these binding legal mechanisms such as Burkina Faso-Mali, Cameroon-Nigeria and Botswana-Namibia. Adjudication entails submitting a dispute to a standing international court, usually the International Court of Justice or the International Tribunal for the Law of the Sea (for maritime boundary cases). Arbitration generally involves creation of an *ad hoc* tribunal that deals only with the merits of a specific case, such as the Eritrea-Ethiopia Boundary Commission, which was effectively an *ad hoc* arbitration tribunal. The Permanent Court of Arbitration in The Hague has frequently provided registrar and administrative support for arbitration tribunals.

When defining the mandate of a joint commission, neighbouring States may find it beneficial to identify a succession, rather than one method, of dispute

³¹ There are numerous international legal texts and articles dedicated to dispute resolution mechanisms, including (among many) Merrills, J.G. *International Dispute Settlement, Fifth Edition* Cambridge: Grotius Publications Ltd, 2011.

resolution mechanisms. For example, an agreement might state that if a joint commission is unable to resolve a dispute within a certain period of time, the dispute would then be submitted to both governments for negotiation through a third party mediator. If mediated negotiations are unable to achieve a resolution, then the dispute could be sent to an independent conciliation commission of five members to provide non-binding recommendations. If the two States do not accept these recommendations, a dispute might then be sent to adjudication or arbitration.

Adjudication and arbitration are high profile, time-consuming, and costly dispute settlement mechanisms. They are only effective if the question that is given to the court or tribunal by the parties specifically addresses the issues at stake. In addition, as Cameroon and Nigeria discovered, a court or tribunal decision may contain technical errors and ambiguities that still need to be addressed in subsequent stages of negotiation, fieldwork, and demarcation. Given the high cost of boundary cases, neighbouring governments should think very carefully and exhaust all potential avenues for resolution before taking a boundary dispute to a court or tribunal.



3

Responsibilities of boundary commissions

As noted at the outset, the objective of national and joint boundary commissions historically has been the prevention of disputes between neighbouring States over the definition of their international boundary. This remains the primary focus of most national and joint commissions. But preventing disputes over the definition of the line itself is just one part of the cross-border relationship between neighbouring States. Disputes can flare over a variety of borderland issues that are more or less related to the definition of the line itself. This section will begin by explaining the common responsibilities given to national and joint commissions in relation to the definition of boundary lines themselves. The later part of this section will then reveal how other types of bilateral and multilateral commissions address other aspects of cross-border management.

3.1 Data collection, sharing and interpretation

The specific work allocated to a national boundary commission and a joint commission will vary but it is likely that work will begin with the ‘recovery’ of boundary definition(s). This requires three main types of information: textual, cartographic, and physical. If the immediate mandate of a national or joint boundary commission is to improve the definition of a specific international boundary (or boundaries), work should begin with the collection of all existing data about boundary or boundaries in question. This will begin with the documentary background to help a national or joint boundary commission to recover the definition of the boundary at a certain period of time, usually the last known physical demarcation. A national boundary commission may have researchers collecting this information for all of the State’s international boundaries. Within a joint commission, both national sides will be researching this information either independently or, ideally, alongside one another. Relevant information will include:

- ▶ All textual descriptions of the boundary (relevant treaties, legislation, administrative decisions);
- ▶ All relevant mapping along the boundary;
- ▶ Records of any previous boundary commissions;
- ▶ Survey reports/aerial photography.³²

For most African States, particularly where little documented boundary demarcation or maintenance has been undertaken since independence, much of this information may be found in the archives of the former colonial administrations. Given the vast volume of material in the respective European government archives (such as The National Archives of the United Kingdom, the African Archives of the Belgian Ministry of Foreign Affairs, and the French *Archives Nationales d’Outre Mer*), identifying the relevant material can be difficult. Therefore, using

³² See especially Macdonald, Alastair ‘Preparation for Boundary Recovery and Demarcation’ in *Delimitation and Demarcation of Boundaries in Africa: General Issues and Case Studies*. African Union Commission/AUBP, 2013.

experienced and skilled researchers can save valuable time and expense. It is also important to note that relevant information, particularly maps and survey information, can be found in other non-government archives such as the archive of the French *Institut Géographique Nationale* (IGN) and the Royal Geographical Society and the British Library in the United Kingdom. Nevertheless, a significant amount of boundary material can also be found in national and local archives around Africa³³, particularly in the archives of survey departments and foreign ministries.³⁴ For example, under the more devolved British colonial administration across Africa, a significant amount of archive material was retained within the local colonial records offices, duplicating material that was sent to the Colonial or Foreign Offices in London or, in some instances, to the India Office (whose records are housed in the British Library).

The best way to approach boundary research within archives is to work backward through time, identifying the most recent information first.³⁵ This approach helps to avoid wasting time looking through volumes of duplicate material. Since it is likely that a boundary would have been interpreted on the ground by successive administrations, the most recent information will be the most valuable since it will indicate the latest known position of a boundary. As has been discovered around Africa, the original treaty or administrative texts that defined the colonial boundaries (both inter- and intra-colonial boundaries) were often compiled over poorly understood or notionally drawn topography and contained significant geographic errors. In many cases, boundaries were reinterpreted, adjusted or adapted on the ground as problems with the original definition were exposed. These revisions may or may not have been documented in formal agreements but they are extremely valuable in understanding how a boundary was interpreted and observed on the ground. Some problematic definitions were never resolved during the colonial period and inherited by independent African governments.

3.1.1 Archiving boundary information

One of the key motivations for the creation of national boundary commissions is to have all boundary information retained in a single location. Therefore a core responsibility of a national boundary commission should be to archive boundary information, making it easily accessible for future research. Joint commissions may collect information on individual boundaries during certain project periods,

³³ For example, information on the use of material from the National Archives of Mali for international boundary adjudication can be found in Ongoiba, Aly 'De la nécessité de Recherche des Documents d'Archives sur les frontières: comme Facteur de Règlement de Litige Frontalier international' in *Delimitation and Demarcation of Boundaries in Africa: General Issues and Case Studies*. African Union Commission/AUBP, 2013. Some African national archives may also have research aids such as Hinfelaar, M. and G. Macola 2004 *National Archives of Zambia: A First Guide to Non-Governmental Archives in Zambia*. Lusaka: National Archives of Zambia.

³⁴ The organisation of domestic archives will vary from state to state. Some states have centralised archives which retain all the material from all ministries while other states may have ministries which maintain their own historic records. States will also have varying closure rules for documents.

³⁵ For more information on boundary research in archives see Pratt, M. 'Sources of information for boundary recovery' in *Delimitation and Demarcation of Boundaries in Africa: General Issues and Case Studies*. African Union Commission/AUBP, 2013.

but they are often not structured to retain or maintain this information. Once a joint commission project (such as a joint survey or demarcation) concludes much of the documentary and cartographic material can easily disappear. This means that when it comes time for boundary maintenance or another project in the future, all of this material may need to be gathered again. Likewise, it is vital that any historic information that is collected and the records of any work that is undertaken by a national or joint boundary commission is properly documented, catalogued, and stored for later retrieval.

Sharing boundary information with neighbouring States, either within joint commissions or between national boundary commissions, is also of significant importance. Withholding documentary information can lead to serious mistrust within a joint commission and contribute to a climate of ‘contest’ when both sides of a joint commission should be aiming for a common goal – a peaceful and well-managed boundary. When trying to recover a boundary, documentary and cartographic information will contain many inconsistencies and ambiguities. If both sides contest every minor point, the recovery process and subsequent demarcation or re-definition work will be delayed and become more expensive. Sharing information builds trust and confidence on both sides of a joint commission, and allows the two sides to identify problems together and explore more creative and mutually acceptable solutions.

3.2 Fieldwork A – Reconnaissance and Sensitisation

The purpose of textual and cartographic information in boundary definition is to document how a boundary is supposed to align itself on the border landscape and to assist in positioning or relocating it accurately on the ground. Historical handbooks for boundary commissions have stressed the importance of fieldwork in all aspects of boundary definition and maintenance.³⁶ In early stages of a national or joint boundary commission’s work, fieldwork is necessary to help confirm exactly how a previously demarcated boundary is currently marked on the ground. Finding and assessing the status of existing pillars in the field requires interpreting the collected descriptive and cartographic evidence and comparing it to the actual position of existing pillars. This process helps to complete the picture in recovering a boundary, but may also raise new questions if various forms of information are found to be contradictory.

Preliminary reconnaissance fieldwork should not be rushed. It can be undertaken

³⁶ Especially the classic text by Jones, S. B. *Boundary-making: A Handbook for statesmen, treaty-editors and boundary commissioners* Washington DC: Carnegie Endowment for International Peace, 1945. See also De La Pradelle, P.G. *La frontière: étude de droit international* Paris: Éditions Internationales, 1928; Adami, V. 1927 *National Frontiers in relation to International Law*, trans. T.T. Behrens, London: Oxford University Press and Holdich, T.H. *Political Frontiers and Boundary Making* London: MacMillan and Co Ltd, 1916.

jointly or unilaterally by field teams of national or joint boundary commissions and involves the following activities:

- ▶ Identifying existing boundary pillars/marks;
- ▶ Identifying any unclear or ambiguous boundary sections;
- ▶ Specifying priority areas for new/additional demarcation;
- ▶ Documenting any straddling infrastructure;
- ▶ Assessing topography and access;
- ▶ Undertaking sensitisation and engagement with local borderland communities.

Beyond just assessing the status of any existing pillars, preliminary reconnaissance field work is absolutely essential for a national or joint boundary commission to understand the border landscape. Preliminary fieldwork should identify boundary sections that are particularly unclear, due to lack of marks or vegetation overgrowth. Field teams should also assess the requirements for demarcation in particular areas. For example, in more developed or populated areas it may be necessary to place more pillars or markers than in more sparsely populated areas. Man-made infrastructure such as buildings, fences, fields and other perceived property lines, or roads may straddle the course of the boundary. Comprehensive field reconnaissance should also assess the topography and access along a boundary. All of these issues are essential for estimating the time and budget necessary for improving demarcation and re-defining the boundary line.

3.2.1 Sensitisation

More important than just assessing the physical border landscape, early fieldwork should include engagement with border communities in what is often referred to as 'sensitisation.' Local border populations are valuable sources of information when attempting to identify pillars and marks. But they are often very suspicious of any activities related to boundary definition since they are most affected by boundary work that may appear to threaten their patterns of interaction and livelihoods along the border region. If local border populations feel alienated from the work of a national or joint commission, they are much less likely to respect the boundary itself. This can create potential future borderland tensions and administrative challenges. Border communities are a critical element in ensuring that boundary disputes do not flare up in the future.

Likewise, field teams should be well trained and briefed before they begin and should prioritise engagement with local community leaders, officials and groups. Sensitising local border populations will usually include:

- ▶ Understanding any local concerns about the boundary;
- ▶ Dispelling any boundary myths;
- ▶ Encouraging local participation.

Boundaries are often politically sensitive, and for local border populations the erection of boundary pillars may be viewed as the first step towards 'sealing' off the border and severing often-generational cross-border ties. Field teams should

be sensitive to these concerns and clarify their role as simply making the boundary line more visible.

In doing so, field teams should also dispel any myths about their work, particularly in relation to boundary pillars themselves, which are often believed to contain valuable metals or electronic hardware. It would also be beneficial if local populations could be engaged in the work of national or joint boundary commissions as part of promoting respect for the boundary. Local populations should be recruited to assist in demarcation projects and in long-term maintenance programmes, such as clearing bush vistas between pillars on a regular basis and helping identify damaged pillars. However, this engagement could go even further to encourage respect for the boundary. For example, local border communities on both sides could join together to design different styles of boundary pillars to be used in their area, reflecting local culture or wildlife. This type of engagement would give local border communities an active role in the work of boundary commissions and a sense of ownership over the boundary that is likely to prevent future disputes.

3.3 Fieldwork B – Demarcation and Survey

Engagement with local border communities should continue into subsequent phases of fieldwork that could include additional demarcation, survey and maintenance. If a demarcation project is necessary, information obtained in the preliminary research and fieldwork should allow a joint or national boundary commission to create a demarcation plan that is most appropriate for the conditions of the individual boundary. Such a plan should set out technical parameters for pillars and survey that take into account the resources and budget available, and may prioritise some boundary sections over others. No international regulations govern the dimensions of boundary pillars, distances between pillars or the parameters for surveying boundary pillars. As established by the agreement and possibly in accordance with the national boundary commission for internal boundaries, the joint boundary commissions should work out these technical issues. A demarcation project can be expensive but it does not need to be approached as a one-time project. Instead, it could be spread over a number of years, improving the definition of specific sections on a priority basis.

Boundary pillars in colonial and post-independence Africa come in variety of shapes and sizes. Stone cairns (often cemented together), iron poles or bars, barked tree trunks and concrete pyramids have served as common boundary markers for inter-colonial and international boundary pillars in Africa. More recently, Algeria, Burkina Faso and Mali have adopted concrete cylinders for their international boundary pillars, while in southern Africa pyramid-shaped pillars are commonplace.³⁷ While the AUBP has discussed the possibility of publishing

standards for boundary pillar size and shape, no consensus has been reached and neighbouring States are still free to choose the style, shape and dimensions of pillars by agreement. As discussed above, there are potential benefits to involving local border communities in pillar design.

Similarly, there is no international standard distance between boundary pillars. This can vary considerably even along the same boundary. Main turning points should be marked by physical pillars but in more remote and less populated border areas, pillars may not need to be placed closely together if the parties agree. However, it should be emphasised that a fewer number of pillars leaves a boundary course vague, and therefore open to contradictory claims. Typically, boundary demarcation will include a range of different pillars, from large main pillars through to smaller intervisible, intermediate markers. A commission should take into account the relative utility and vulnerability of pillars according to local conditions. For example, in long grass it may be necessary for pillars to have a tall vertical mast or extension to make them visible. Larger pillars may be more visible but they are also vulnerable to erosion or to wildlife such as elephants using them as scratching posts. In eastern Europe, largely buried boundary pillars with small extensions above ground level with large plastic marker obelisks in national colours on either side have become commonplace.

3.3.1 Boundary survey and mapping

A national or joint boundary commission also needs to agree on the parameters for boundary survey and mapping as part of developing a demarcation plan.³⁷ This is often the most expensive part of a demarcation project and the more complex the survey parameters, the more expensive the project. At the same time, good quality and large-scale (1:50,000 or larger) boundary mapping can make on-going maintenance and future recovery of missing pillars much easier. Poor quality mapping makes recovery of damaged or missing pillars much more difficult and leaves definition of the line itself more ambiguous and subject to different interpretations, which can lead to disputes. However, the availability of relatively inexpensive geospatial data that include commercial higher resolution satellite imagery and the increasing accuracy of GPS equipment have made boundary surveys much less complex and expensive.³⁹

Rather than using government resources, some joint commissions have opted to employ external survey companies to undertake boundary mapping, and assist in demarcation. The German survey company Hansa Luftbild has undertaken

³⁷ See especially, Mucombo, J.E. 2009, and Coulibaly, I. 'Demarcating Africa's Post-Conflict Boundaries: The Burkina Faso-Mali Experience', in: *Delimitation and Demarcation of Boundaries in Africa: General Issues and Case Studies*. African Union Commission/AUBP, 2013

³⁸ An example of a straight-forward, agreed demarcation plan would be the 2 April 1968 *Procès-Verbal for the Algerian-Tunisian Technical Commission* that was appended to the 6 January 1970 *Agreement on the Frontier between Algeria and Tunisia from Bir Romane to the Libyan Frontier*.

³⁹ See especially El Sadig Ali, Professor A. 'Managing boundary information' in *Delimitation and Demarcation of Boundaries in Africa: General Issues and Case Studies*. African Union Commission/AUBP, 2013.

apping and demarcation of several international boundaries on the Arabian Peninsula. France's IGN undertook survey and demarcation of boundaries in Lake Chad in the late 1980s, and the British firm Merrett Survey has conducted the topographic survey in support of the Cameroon-Nigeria Mixed Commission. The use of an external contractor for boundary mapping usually results in an excellent final product. However, this can be expensive depending on the survey parameters. Furthermore, employing external contractor can prevent government surveyors and technicians from gaining valuable experience.

Undertaking thorough preliminary research and fieldwork will greatly enhance subsequent demarcation and survey projects. Nevertheless, it is almost certain that as joint commissions undertake demarcation there will be minor issues and questions about the position of the boundary that emerge and will need to be resolved. As noted above, the mandate of a joint commission should provide the commission with a degree of flexibility to adjust the line according to local conditions. Having all of the information at hand and (hopefully) a good understanding of the borderland areas, joint commissions are best placed to propose variations to the line in order to prevent future problems.

3.3.2 Documenting demarcation work

All information gathered and generated by a national or joint commission from the preliminary archive research and initial field reconnaissance through to completion of a demarcation project, should be documented and archived. Geographic information system (GIS) software provides the ideal platform for storing all information related to the definition of a boundary line. It allows a variety of data, from textual descriptions and historic boundary maps through to precise survey coordinates, and imagery and aerial photography to be integrated into a single, accessible system. Many recent demarcation projects, such as the documentation related to the Cameroon-Nigeria Mixed Commission and the 2008 Burkina Faso-Mali joint commission (see Figure 9) include forms that document each boundary pillar which typically includes:

- ▶ Pillar number;
- ▶ Physical description of the pillar;
- ▶ Date of establishment/erection;
- ▶ Coordinates for the pillar position (often in both a global datum such as WGS84 and a local datum);
- ▶ Small sketch of the pillar dimensions;
- ▶ Small sketch of pillar site including any witness marks or reference marks;
- ▶ Photographs of the pillar.

Border between Burkina Faso and the Republic of Mali

Route defined by the International Court of Justice (ICJ) general ruling

No. 69 of December 22, 1986

Type of marker set up every kilometre

Data sheet

Beacon No. 1: B1

Border Beacon

Ratio 1/200.000 DJIBO

Coordinates		
Ellipsoid WGS84		
Latitude [DMS] 14°28'34,85966"N	Longitude [DMS] 1°58'19,22282" W	H _{ellipsoidale} [m]
X [m] 610,786.59	Y [m] 1,600,657.75	H _{orthometric} [m]
Ellipsoid CLARKE 1880		
Latitude [DMS] 14°28'35,90643"N	Longitude [DMS] 1°58'17,37828" W	H _{ellipsoidale} [m]
X [m] 610,844.00	Y [m] 1,600,547.97	H _{orthometric} [m]
Remarks		
1. The flat coordinates are defined by the UTM projectio Fuisseau/Spindle 30 North.		
2. The transformation parameters used in the section between WGS84 and CLARKE1880 are those determined by the Joint Commission for the Delimitation of the Border between Burkina Faso and Mali in 1990.		

Simplified sketch (not to scale)

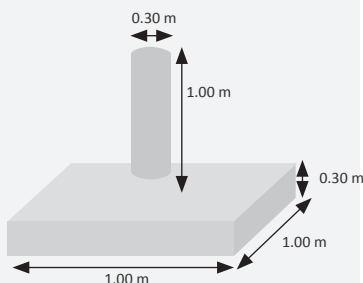


Figure 9: Demarcation documentation for the Burkina Faso–Mali border by the Joint technical committee for border delimitation (image from Coulibaly 2013)

This information is extremely valuable for future maintenance and can easily be integrated into a GIS platform for retention by both neighbouring States (possibly by respective national boundary commissions). If a joint commission agrees that comprehensive survey and large scale mapping is beyond the resources available for a specific demarcation project, this type of information would be the minimum requirement if any demarcation work is undertaken. The accuracy of even hand-held satellite positioning receivers is improving rapidly, so coordinates for pillars can be obtained fairly easily by field teams. A joint technical commission successfully completed the Demarcation of the Burkina Faso-Mali boundary between 2005 and 2009 with a reasonably limited budget and using fairly uncomplicated techniques. ⁴⁰

⁴⁰ For a good review of the Burkina Faso-Mali demarcation project see Coulibaly, I. (2013) 'Demarcating Africa's Post-Conflict Boundaries – The Burkina Faso-Mali Experience', in: AUBP (2013) *Delimitation and Demarcation of Boundaries in Africa: General Issues and Case Studies*. Addis Ababa: African Union Commission, p. 186.

The African Union Border Programme maintains a GIS-based Boundary Information System (AUBIS)⁴¹ and endeavours to assist Member States in documenting boundary demarcation activity, either using AUBIS itself or in national boundary information systems.

3.4 Long-term responsibilities of boundary commissions

3.4.1 Boundary line maintenance

Following the completion of a demarcation project, it is essential that a joint commission agrees a long term maintenance programme. This will relate largely to the definition of the boundary on the ground that can be conducted both unilaterally (by a national boundary commission) and bilaterally (by the joint boundary commission) in future. Three possible methodologies for designating maintenance responsibilities include:

- 1 Each side is allocated specific boundary pillars (e.g. odd or even numbered pillars) to be monitored, repaired and replaced.
- 2 Each side is allocated specific sections of the boundary along which they are to monitor, repair and replace all boundary pillars.
- 3 Both sides monitor, repair and replace all boundary pillars jointly, through a permanent joint commission.

Alongside monitoring, repairing and replacing boundary pillars, where necessary on-going maintenance may also need to include bush clearance between the pillars along a cleared track or 'vista' in order to keep the pillars intervisible. The width of the vista should be agreed by the joint commission. Typically this is 3 to 5 metres on either side of the boundary line. Clearing a vista not only improves the visibility of the boundary on the ground for people crossing, it can also provide easier access for field teams along the line to quickly identify and repair damaged or missing pillars.

It is recommended that additional joint inspections take place regularly (e.g. every five years) where States conduct boundary maintenance unilaterally. For all maintenance regimes, the duration between unilateral and joint inspections of boundary pillars and vista clearance operations will be determined by the conditions of the specific boundary. For those boundaries that pass through areas of dense vegetation, it would be preferable to inspect the pillars jointly more

⁴¹ African Union Border Information System, AUBP Website: aubis.peaceau.org/aubis.

frequently as they are more likely to be affected by erosion and root invasion. For boundaries through less dense bush and more remote areas, the duration between inspections may be longer.

Under a national boundary commission, on-going maintenance of the boundary line should engage with and utilise resources within local border communities. For example, local border control officers can identify damaged boundary pillars and notify the national boundary commission to coordinate repairs. Staying in contact with local officials and leaders in border communities gives national boundary commissions important sources of local information. Local leaders can identify sections that may be subject to local dispute or which may require additional marking on the ground. Local teams could be recruited seasonally to help with bush clearance along the boundary vista, as is common along North American boundaries (e.g. Belize-Mexico and Canada-United States).

3.4.2 Other responsibilities for border management

Beyond just the definition and maintenance of the boundary line itself, this section examines some of the other types of joint commissions created by neighbouring States that deal with cross-border management issues. Often these joint commissions will be spread across domestic government ministries and agencies. The national boundary commission framework might be expanded to encompass these other types of joint commissions in order to better coordinate and resources border management activities.

Transboundary water management

Boundaries also split fresh water bodies such as rivers and lakes, creating a water resource that is concurrently divided and shared by neighbouring States. In defining the boundary line itself through such water bodies, joint boundary commissions have also been used as the platform to address transboundary water management.

The Mexico-U.S. International Boundary and Water Commission (IBWC) is perhaps the best example. It was created in 1889 as the U.S.-Mexico International Boundary Commission, a normal joint boundary commission tasked with demarcating the boundary and resolving disputes over the boundary through the Rio Grande/Río Bravo. In 1906 the two States agreed to ensure distribution of a certain volume of water from this river and the IBC was given responsibility for monitoring water allocation along a section of the boundary river.

In 1944, the two States agreed on a more detailed and comprehensive water distribution plan. The original boundary commission was renamed the International Boundaries and Water Commission (IBWC) and was given responsibility for water management and distribution along the three boundary rivers (the Rio Grande, Colorado and Tijuana). Today the IBWC remains responsible for land boundary maintenance, but the majority of its time is spent on the management of water

quality and distribution in the boundary rivers. As a permanent joint commission with small staff on both sides, the IBWC is led by two 'commissioner-engineers' whose offices are located in close proximity and who meet weekly.

The United States has a different situation with Canada where the Canada-U.S. International Boundary Commission is responsible for maintaining the boundary line, including the line through rivers and water bodies. However, the two States created a separate joint commission, the International Joint Commission (IJC), in 1909 "to help prevent and resolve disputes relating to the use and quality of boundary waters." The IJC is not responsible for boundary definition, but has the authority to monitor water quality and approve any projects along transboundary water bodies (e.g. dams, irrigation projects etc). In 1991 the two governments also agreed that the IJC would be responsible for monitoring transboundary air pollution.

Management of transboundary water is an issue that has motivated the creation of bilateral and multilateral commissions worldwide. These commissions have a variety of structures but largely they fall into three distinct categories based on their mandates:

- ▶ Project-specific water commissions;
- ▶ Joint water commissions;
- ▶ Basin-wide multilateral commissions.

Project-specific water commissions are regulatory bodies established by neighbouring States to manage a specific hydro project that is located on a boundary waterway, usually a dam or hydroelectric project on a boundary river. There are a number of African examples such as the Zambezi River Authority (ZRA) between Zambia and Zimbabwe. Originally created in 1964 to oversee the construction of the Kariba dam on the Zambezi River, which forms the boundary, the ZRA is now responsible for operation of the dam complex and for investigating and recommending other hydro projects along the river. The ZRA is also responsible for monitoring hydrological and environmental data about the river as it affects operation of Lake Kariba and the dam infrastructure.

Lesotho and South Africa maintain the Lesotho Highlands Water Project, which includes a series of hydroelectric dams in Lesotho producing electricity and a tunnel network that supplies South Africa with water from the reservoirs. The Lesotho Highlands Water Commission, which includes representatives from both States, leads and oversees the construction of the Project. The two neighbouring States have also created the Lesotho Highlands Development Authority which is now an autonomous body that maintains the Project infrastructure and manages secondary effects related to the Project, such as resettlement, compensation, water quality, irrigation and tourism.

Joint water commissions such as the Canada-U.S. IJC described above are not as common as project-specific commissions which have clearly defined roles in man-

aging a specific operation. Instead, joint water commissions would be responsible for managing all of the transboundary water bodies between two neighbouring States. As already noted, the IJC undertakes a variety of roles, monitoring and investigating any pollution or other damaging activities that affect shared water bodies. Given the length of the Canada-U.S. boundary, in addition to the fact that it passes through many rivers, streams and lakes, the two States agreed that a dedicated and permanent joint water commission like the IJC was the most appropriate mechanism. In Africa, similar joint water commissions include the Botswana-Namibia Joint Permanent Water Commission and the Namibia-South Africa Permanent Water Commission.

More common across Africa are bilateral and multilateral basin-wide commissions, which are created by two or more States that share a common river or lake basin. There are numerous basin commissions or management organisations across Africa, including: the Mano River Union, the Nile Basin Initiative, the Niger Basin Authority, the Orange/Sequ River Commission, the Permanent Okavango River Basin Commission, the Organisation for the Management of the Kagera River Basin, the Lake Victoria Basin Commission, the Lake Chad Basin Commission, and the *Organisation pour la Mise en Valeur du bassin du fleuve Senegal* (OMVS).⁴² These organisations have a wide range of authority and responsibilities, and some are more active than others. Largely they are advisory bodies that simply recommend policy and regulatory arrangements to their Member State governments regarding aspects of water quality, navigation, managing usage and, in some cases, the actual distribution of water among basin States. Some of these basin-wide commissions may even have some responsibilities for preventing or resolving boundary related disputes, like the Lake Chad Basin Commission and the Zambezi Watercourse Commission (ZAMCOM).

Transboundary environmental management

In addition to managing transboundary water, some States have created commissions to manage common ecosystems, conservation areas and even national parks that straddle a boundary. Some have formalised joint management structures involving joint and multilateral commissions, such as those that have been established to manage the so-called Peace Parks in southern Africa.⁴³ The Great Limpopo Transfrontier Park (GLTP) that includes South Africa's famed Kruger National Park and neighbouring parks in Botswana and Zimbabwe is regulated by a management body that bears striking resemblance to the national boundary commission structure. Established by a trilateral treaty signed on 9 December 2002, the management body of the cross-border park includes representatives from all three States, is led by a joint ministerial committee, and includes a joint management board and four technical committees that address four specific issues (see Figure 10).

⁴² The Transboundary Waters Project at Oregon State University in the United States has documented the wide range of international water commissions worldwide, including in Africa. See especially: www.transboundary-waters.orst.edu/research/RBO/RBO_Africa.html

⁴³ See especially the Peace Parks Foundation for more information: www.peaceparks.org



Figure 10: Management structure of the Great Limpopo Transfrontier Park (GLTP)

The GLTP has perhaps the most formalised joint management structure of any transboundary conservation area, and other adjacent national parks or conservation areas may have less formalised arrangements. These may include attempts by both States to harmonise land use regulations within their neighbouring conservation areas, coordinating joint anti-poaching patrols and search-and-rescue, and organising joint wildlife management.

General cross-border cooperation

Often situated far from the political and economic centres, border regions are traditionally alienated and under-developed areas. Border areas are also historically areas of violence, where two neighbouring political entities contest control over territory or borderlands harbour elements hostile to the central governments of States. While international customary law and the doctrine of *uti possidetis* may have removed the spectre of States acquiring legal sovereignty over territory through conquest, disputes over unclear or poorly defined boundaries continue to spark conflict from the local to the national scale. As sites of overlapping claims to land rights and possible boundary disputes, border areas have traditionally been seen as areas of 'risk' which in turn can impede economic investment. However, border regions are also often dynamic zones where commu-

nities can have more in common, culturally, economically and sometimes even politically, with neighbouring communities on the opposite side of the boundary than they have with their national compatriots. This is particularly the case in Africa, as many scholars have noted.⁴⁴

Along many international boundaries, there are local border commissions or committees that deal with local cross-border problems such as seasonal grazing and livestock rustling, or that may simply promote peaceful cross-border activities. Local committees composed of border control officials meet occasionally to discuss particular security problems. However, local border committees may also include other local representatives and may work to promote joint activities between local communities. Because they are often informally structured, it is difficult to take inventory of the variety of local border committees known to exist along many African boundaries. If a State does have formal or informal local border committees, it would be possible to support their work through the national boundary commission framework.

The Nigerian NBC's new department for border region development is an excellent example of a national boundary commission expanding its mandate to support initiatives in local border communities to promote cooperation and development. Nigeria already had significant local cooperation with neighbouring States, especially with Niger.⁴⁵ However, this integration of border development into the Nigerian NBC structure ought to provide a more formalised network of national support for local cross-border initiatives, rather than being dependent solely on local administrative support. Two of the founders of Nigeria's NBC, Professors Anthony Asiwaju and B.M. Barkindo, have written widely on the subject of cooperation between communities on either side of Nigeria's international borders. With the NBC already structured to address the technical issues of boundary definition, the vision of utilising the resources of the NBC to promote cross-border cooperation and border development seems to be coming to fruition.

⁴⁴ Including, among many: Asiwaju, Anthony I. *Partitioned Africans*; Nugent, P. and A.I. Asiwaju *African Boundaries: Barriers, Conducts and Opportunities* London: Frances Pinter, 1996 and Miles, William F.S. *Hausaland Divided: Colonialism and Independence in Nigeria and Niger* Cornell: Cornell University Press, 1994.

⁴⁵ Asiwaju, A.I. and B.M. Barkindo, eds. *The Nigeria-Niger Transborder Co-operation* Lagos: Malthouse Press Ltd., 1993.

4



Summary of recommendations

This guidebook has sought to offer a range of practical recommendations relating to the creation and operation of boundary commissions in Africa. While it has been demonstrated that no single model prevails for an effective boundary commission, and not all recommendations will apply in all circumstances, a number of good practice recommendations can be identified that apply in most circumstances. These include:

- ▶ Before creating a national or joint boundary commission, the government or neighbouring governments involved need to evaluate the relevant boundary relationship(s) in order to understand what challenges are presented, what resources are available and which tasks should be treated as priorities (see especially section 2.1).
- ▶ The mandate given to a boundary commission is likely to be significant in determining the commission's effectiveness. Whichever form a boundary commission takes, strong political support is extremely valuable (section 2.4.2).
- ▶ Most national boundary commissions in Africa have a basic three-level structure with ministerial, management and operational levels. These levels are sometimes described differently, e.g. 'presidential, institutional and technical' levels, but the elements are essentially the same. The roles and functions of each level need to be clearly defined, and clear and effective lines of communication need to be maintained between levels. These requirements also apply when a national boundary commission supports one or more bilateral boundary commissions (section 2.4).
- ▶ Regular communication between counterparts on bilateral boundary commissions is essential, even if the practical work of the commission is dormant. Communication between commissions helps build trust. Once trust has been established, one side can often undertake some tasks alone (e.g. pillar maintenance along certain sections of a boundary), saving valuable time and money (section 2.4.3).
- ▶ All boundary commissions should have appropriate dispute resolution mechanisms built into their operational procedures (section 2.4.4).
- ▶ Whatever the precise role and function of a boundary commission, effective collection, analysis, archiving and appropriate sharing of relevant data is crucial. Geographical Information Systems provide ideal means to manage boundary information (sections 3.1 and 3.3.2).

- ▶ Even when good quality maps and high-resolution, remotely-sensed imagery is available, field reconnaissance remains an essential element of a boundary commission's work (section 3.2).
- ▶ External contractors may be able to assist with data collection (especially in colonial archives), field surveys and map production. However, cost savings arising from using experienced external contractors need to be weighed up against the potential loss of in-country capacity-building. Relatively simple, low-cost approaches using local expertise and labour can be employed, especially in boundary demarcation, without a significant loss of quality in the end product (sections 3.1 and 3.3.1).
- ▶ Borderland populations need to be sensitised to the work of boundary commissions in order to prevent misunderstanding and hostility. Supportive local populations can contribute effectively to the work of boundary commissions (section 3.2.1).
- ▶ Boundary commissions do not have to achieve everything all at once. Functions can evolve and expand over time according to needs and capacity. It may be best to start with a small commission with a limited set of tasks, and develop the commission's role over time as competence and confidence increase (sections 2.3 and 3.4).

In its capacity-building role, the African Union Border Programme affirms its willingness to assist Member States in the process of creating and sustaining effective national and/or bilateral or multilateral boundary commissions across Africa.

This guide seeks to support African States in creating national as well as bilateral / mixed boundary commissions that are able to respond to problems linked to the definition of borders, to sustainably prevent conflict and to encourage cross-border cooperation. Boundary commissions are a crucial factor in the development of border zones.

The guide outlines the international legal concepts that constitute the framework of a boundary commission's work. It explores the procedures of how to create a commission, including the general context of its operation, different types of structure and mandates. The guide concludes with recommendations for good practice in the work of national and mixed boundary commissions.

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