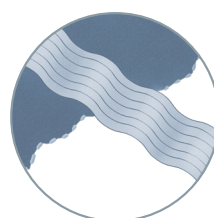


# Whose Water?

A COMPARATIVE ANALYSIS OF NATIONAL LAWS  
AND REGULATIONS RECOGNIZING INDIGENOUS  
PEOPLES', AFRO-DESCENDANTS', AND LOCAL  
COMMUNITIES' WATER TENURE



**RIGHTS AND RESOURCES INITIATIVE &  
ENVIRONMENTAL LAW INSTITUTE**

AUGUST 2020

## About the Rights and Resources Initiative

The Rights and Resources Initiative is a global Coalition of more than 150 organizations dedicated to advancing the forest, land, and resource rights of Indigenous Peoples, Afro-descendants, local communities, and the women within these groups. Members capitalize on each other's strengths, expertise, and geographic reach to achieve solutions more effectively and efficiently. RRI leverages the power of its global Coalition to amplify the voices of local peoples and proactively engage governments, multilateral institutions, and private sector actors to adopt institutional and market reforms that support the realization of rights. By advancing a strategic understanding of the global threats and opportunities resulting from insecure land and resource rights, RRI develops and promotes rights-based approaches to business and development and catalyzes effective solutions to scale rural tenure reform and enhance sustainable resource governance.

RRI is coordinated by the Rights and Resources Group, a non-profit organization based in Washington, DC. For more information, please visit [www.rightsandresources.org](http://www.rightsandresources.org).



2715 M St NW  
Suite 300  
Washington, DC 20007

[www.rightsandresources.org](http://www.rightsandresources.org)  
@RightsResources

## PARTNERS



## SPONSORS



## About the Environmental Law Institute

Since 1969, the Environmental Law Institute (ELI) has played a pivotal role in shaping the fields of environmental law, policy, and management around the world. As a non-partisan research and education center, ELI works to find equitable, sustainable, and realistic policy, legal and institutional solutions to the world's most pressing environmental governance challenges. Working with our governmental and non-governmental partners in over 100 countries, ELI provides innovative and expert research and analysis of complex environment and development challenges; builds the skills and capacity necessary for meaningful implementation and enforcement of environmental laws; and convenes people with diverse perspectives to build understanding and increase accountability through robust public debate.



1730 M St NW  
Suite 700  
Washington, DC 20036

[www.eli.org](http://www.eli.org)  
@ELIORG

*The views presented here are not necessarily shared by the agencies that have generously supported this work. This work is licensed under a Creative Commons Attribution License CC BY 4.0.*

*Rights and Resources Initiative and Environmental Law Institute. 2020. Whose Water? A Comparative Analysis of National Laws and Regulations Recognizing Indigenous Peoples', Afro-descendants', and Local Communities' Water Tenure. Rights and Resources Initiative, Washington, DC. Available at: [www.rightsandresources.org](http://www.rightsandresources.org)*

# Table of Contents

---

<b>ACKNOWLEDGMENTS .....</b>	<b>5</b>
<b>FOREWORD .....</b>	<b>6</b>
<b>ABBREVIATIONS AND ACRONYMS .....</b>	<b>7</b>
 <b>REPORT</b>	
<b>Executive Summary .....</b>	<b>8</b>
Methodology .....	8
Findings .....	9
Regional Findings .....	10
Recommendations for Action .....	10
<b>Chapter 1: Introduction .....</b>	<b>11</b>
1.1 The Benefits of Conceptualizing and Supporting Communities' Freshwater Tenure Rights .....	12
1.2 Purpose of this Analysis .....	14
<b>Chapter 2: Methodology .....</b>	<b>16</b>
2.1 Scope of Analysis .....	16
2.2 Unit of Analysis .....	18
2.3 Key Terms .....	19
2.4 Elements of the Methodology and Definitions of Legal Indicators .....	19
2.4.1 National-Level Threshold Questions .....	19
2.4.2 CWTR-Level Threshold Questions .....	19
2.4.3 Legal Indicators and Sub-Indicators .....	21
2.5 Assessment Criteria for Legal Indicators and Sub-Indicators .....	22
2.6 Caveats .....	22
<b>Chapter 3: A Statutory Approach to Community-Based Water Tenure .....</b>	<b>23</b>
3.1 The Human Right to Water .....	23
3.2 CWTR-Level Threshold Questions .....	24
3.2.1 Customary Rights to Water .....	24
3.2.2 The Land-Water Nexus .....	24
3.2.3 Women's Rights to Community Waters .....	25
3.3 Legal Indicators .....	26
3.3.1 Use Rights .....	26
3.3.1.1 The Significance of Water Use Rights for Cultural and Religious, Domestic, Livelihood, and Commercial Purposes .....	26
3.3.1.2 Common Trends across Legal Frameworks: Water Use Permits, Exemptions, and Prioritization .....	26
3.3.1.3 Differences in Legislative Definitions across Water Use-Types .....	27
3.3.2 Transferability .....	27
3.3.3 Exclusion .....	27
3.3.4 Governance .....	28
3.3.4.1 Rulemaking, Planning, and Management .....	28
3.3.4.2 Internal Dispute Resolution and External Enforcement .....	29
3.3.5 Due Process (Prior Notice, Consultation, and Appeal) and Compensation .....	29
3.3.5.1 Transboundary Due Process .....	30
<b>Chapter 4: Global And Regional Findings .....</b>	<b>31</b>
4.1 Summary of Global Results .....	31
4.2 National Recognition of the Human Right to Water .....	33
4.3 Customary Right to Water .....	33
4.4 Land-Water Nexus .....	34
4.5 Indigenous, Afro-descendant, and Community Women's Rights to Water .....	35
4.6 Freshwater Use Rights .....	36
4.6.1 Cultural/Religious Uses .....	37
4.6.2 Domestic Uses .....	37
4.6.3 Livelihood Uses .....	37
4.6.4 Commercial Uses .....	38
4.7 Transferability .....	38

4.8 Exclusion .....	38
4.9 Governance .....	39
4.9.1 Rulemaking, Planning, and Management .....	39
4.9.2 Internal Dispute Resolution and External Enforcement .....	40
4.10 Domestic Due Process (Prior Notice, Consultation, and Appeal) and Compensation .....	40
4.11 Transboundary Due Process (Prior Notice, Consultation, and Appeal) .....	42
4.12 Regional Findings .....	42
4.12.1 Africa .....	43
4.12.2 Asia .....	44
4.12.3 Latin America .....	45
<b>Chapter 5: Implications .....</b>	<b>47</b>
<b>Chapter 6: Recommendations .....</b>	<b>53</b>

## ANNEXES

Annex 1: International Law .....	56
Annex 2: Freshwater Tenure Methodology: Legal Indicators and Assessment Criteria .....	59
Annex 3: Legislation Cited .....	62

<b>Endnotes .....</b>	<b>72</b>
-----------------------	-----------

## FIGURES

Figure 1: This analysis includes the following 15 countries: Bolivia, Cambodia, Chile, Colombia, India, Kenya, Liberia, Mali, Mexico, Morocco, Nepal, Panama, Peru, Vietnam, and Zambia .....	16
Figure 2: Performance of 25 CWTRs Where a Legislative Land-Water Nexus Exists, as Compared to 14 CWTRs where a Land-Water Nexus is not Present .....	34
Figure 3: Performance of 39 CWTRs in 15 Countries Concerning Five Threshold Questions .....	35
Figure 4: Performance of 39 CWTRs in 15 Countries across Legal Indicators .....	36
Figure 5: Performance by Region across Threshold Questions .....	42
Figure 6: Performance of 5 Countries in Africa Concerning the Recognition of Community Freshwater Rights in 11 CWTRs .....	43
Figure 7: Performance of 4 Countries in Asia Concerning the Recognition of Community Freshwater Rights in 9 CWTRs .....	44
Figure 8: Performance of 6 Countries in Latin America Concerning the Recognition of Community Freshwater Rights in 20 CWTRs .....	45

## TABLES

Table 1: Countries Party to International Treaties and Regional Agreements .....	17
Table 2: Methodology Summary .....	20
Table 3: Findings by Region .....	31

## BOXES

Box 1: Overlaps between community-based water tenure and land tenure .....	18
Box 2: Legislative Opportunities: Developments in Liberia, Nepal, and Mexico .....	48

## Acknowledgments

---

This report is the result of a collaboration between Rights and Resources Initiative (RRI) and the Environmental Law Institute (ELI), with support and valuable contributions from RRI Partners, Collaborators, Affiliated Networks, and Fellows; independent consultants; and country experts.

Stephanie Keene, Jessica Troell, and Chloe Ginsburg led the data analysis and authored the report. Important contributions to the research, data collection, analysis, content, and/or production of the report were provided by Alain Frechette, Carl Bruch, Alejandra Rabasa, Xiao Recio-Blanco, Avital Li, Omaira Bolaños, Patrick Kipalu, Kundan Kumar, Jenna DiPaolo Colley, Jamie Kalliongis, Lindsay Bigda, Lai Sanders, Luke Allen, David Kroeker-Maus, Kate Horner, Alan Landis, and Andy White.

The authors wish to thank the following consultants: Luisa Arauz, Thanh Ha, Virginia Marshall, Léna Salamé, Surya Upadhyay, and Claudia Vargas Vucsanovich, for their invaluable contributions to the initial data collection and analysis for this study.

The authors also wish to express their appreciation to the following individuals, who made significant contributions that improved the methodology, framing, and content of the report: Liz Alden Wily, Bruce Aylward, Stefano Burchi, Charles di Leva, Nighisty Ghezze, Stephen Hodgson, Tony La Viña, Owen Lynch, Leticia Merino, Ruth Meinzen-Dick, Bharati Pathak, Ujjwal Pradhan, Hilly Ann Roa-Quiaoit, Nonette Royo, Michael Simon, Barbara Schreiner, Pasang Sherpa, Jim Smyle, Barbara van Koppen, and Peter Veit.

The following experts contributed time, energy, and knowledge in providing access to and/or reviewing the legal analyses that form the primary substance of this report: Peter Aldinger, Sanford Berg, Alfred Brownell, Guillermina Calles, Oscar Campanini, Mohamed Chaouni, Monica Chundama, Mohamed Coulibaly, Phillipe Cullet, Aly Dama, Hari Dhungana, Megan Dyson, Claudia Gómez Godoy, Fatoumata Sidibe Guindo, Michael Peter Hantke Domas, Abdellah Herzenni, KJ Joy, Giri Raj Khatri, Dil Raj Khanal, Elizabeth Macpherson, David Marín Cortés, Vladislav Michalcik, Celestine Musembi, Michael Mutale, Tep Neth, Thi Phuong Loan Nguyen, Nguyen Ngoc Ly, Katie O'Bryan, Collins Odote, Florencia Ortuzar, Prachanda Pradhan, Constanza Prieto Figelist, Manuel Prieto Montt, Astrid Puentes Riaño, Jeanette Maribel Salazar Salas, Sok Serey, Akash Shrestha, Rónel Solís, Raya Marina Stephan, Patricia Urteaga Crovetto, Anaid Velasco, Vu Xuan Viet, Felix Wing Solis.

Any omissions of contributors are unintentional, and any errors are the authors' own.

Design and layout by Publications Professionals.

## Foreword

---

Water is one of humanity's most essential resources and all indications are that it will become scarcer and more unpredictable in supply and in quality in the future. Two-thirds of the world's population is expected to experience some form of water stress by 2025, and without action, this will lead to even greater poverty, food insecurity, health risks, and conflict. It is for these reasons that the widespread reality of unrecognized land and resource rights of Indigenous Peoples, Afro-descendants, and local communities is doubly important. First because communities traditionally steward over half of the global land mass—including interconnected systems of forests, wetlands, and freshwater—making them key stewards of water resources that are essential for all. And second because they are, in most countries, among the most marginalized and vulnerable populations, which in turn places them, their land and the freshwater resources that they steward at risk. Recognizing community-based freshwater water rights is therefore not only essential for the realization of their self-determined priorities, it is also a fundamental human rights imperative that ultimately affects us all.

This report makes three important contributions. First, it develops a methodological framework to conceptualize, compare, and track the extent to which countries' legal frameworks recognize community-based freshwater tenure rights. Second, it applies this framework to diverse set of countries to assess the relative performance of different legal frameworks across Asia, Africa, and Latin America. And third, it highlights the need for clear, gender-sensitive legal protections for communities' tenure rights across sectoral laws—reflecting the legal and lived reality that lands, forests, and water are interrelated.

This analysis finds that despite widespread legal frameworks recognizing communities' various water use and governance rights, communities across regions face both legislative and regulatory constraints that limit their ability to fully exercise their freshwater tenure rights. Because community-based freshwater rights frequently depend on whether governments also recognize their land or forest tenure rights, failure to legally recognize communities' land rights can in turn hinder their ability to effectively manage the freshwaters that they and others depend on. And critically, the report shows that in spite of their unique needs and roles in managing water for their households and communities, Indigenous, Afro-descendant, and community women's rights to use and govern community freshwater resources are inadequately protected under national laws, which often leads to additional burdens and exposure to violence.

It is our hope that this analysis, and the methodological framework that underpins it, will help Indigenous, Afro-descendant and community organizations and their allies advocate for the legal recognition of communities' freshwater rights and assist governments, development actors, civil society, and other stakeholders to collaborate across sectors to more effectively respect and protect indigenous and community rights to their territorial resources.

Future iterations of this report will further expand and update analysis of the status of communities' legally recognized freshwater rights and the challenges they face in realizing those rights. By complementing existing efforts to track the legal recognition of communities' lands and forest tenure rights, it marks a significant contribution toward prolonged efforts to monitor global progress and setbacks with respect to a comprehensive array of water, forest, and land tenure rights held by Indigenous Peoples, Afro-descendants, local communities, and the women within these groups.



**Andy White**

Coordinator

Right and Resources Initiative

## Abbreviations and Acronyms

---

<b>CBTR</b>	community-based tenure regime
<b>CEDAW</b>	Convention on the Elimination of All Forms of Discrimination against Women
<b>CSO</b>	civil society organization
<b>CWTR</b>	community-based water tenure regime
<b>ELI</b>	Environmental Law Institute
<b>EPSA/CAPYS</b>	Entidad Prestadora de Servicios de Agua Potable y Alcantarillado Sanitario (EPSA) and Comités de Agua Potable y Saneamiento (CAPYS) (Potable Water and Sanitary Sewer Service Provider Entities and Drinking Water and Sanitation Committees)
<b>FAO</b>	Food and Agriculture Organization of the United Nations
<b>FPIC</b>	free, prior, and informed consent
<b>HICs</b>	high-income countries
<b>ICESCR</b>	International Covenant on Economic, Social and Cultural Rights
<b>ICJ</b>	International Court of Justice
<b>IFC Performance Standards</b>	International Finance Corporation Performance Standards on Environmental and Social Sustainability
<b>ILO Convention No. 169</b>	International Labour Organization Convention No. 169
<b>LMICs</b>	low- and middle-income countries
<b>PES</b>	payment for ecosystem services
<b>RRI</b>	Rights and Resources Initiative
<b>SDGs</b>	Sustainable Development Goals
<b>TEIA</b>	Transboundary Environmental Impact Assessment
<b>UNDRIP</b>	United Nations Declaration on the Rights of Indigenous Peoples
<b>WASH</b>	water, sanitation, and hygiene
<b>WUAs</b>	Water Users Associations
<b>VGGT</b>	Voluntary Guidelines on the Responsible Governance of Tenure of Land, Fisheries and Forests in the Context of National Food Security

## Executive Summary

---

Clearly defined and legally secure freshwater tenure rights are essential to Indigenous Peoples', Afro-descendants', and local communities' livelihoods and food security, as well as to countries' efforts to achieve sustainable development priorities and ensure climate resilience. Despite this, community-based freshwater tenure has received far less attention than land tenure, which has been widely accepted as a precondition for the ability of up to 2.5 billion people who rely on community lands to achieve their development priorities and climate resiliency. Even so, communities are recognized as legal owners of only 10 percent of land globally and the extent of their legal rights to water remains largely unknown. **This report, stemming from a collaboration between the Rights and Resources Initiative (RRI) and the Environmental Law Institute (ELI), presents an innovative, international comparative assessment on the extent to which various national-level legal frameworks recognize the freshwater tenure rights of Indigenous Peoples, Afro-descendants, and local communities, as well as the specific rights of women to use and govern community waters.** The analysis demonstrates that consistent realization of community-based freshwater rights requires an integrated, tenure-based approach that will often require national-level legal reforms to effectively harmonize water, land, and forest legislation.

### Methodology

**The Freshwater Tenure Methodology featured in this report conceptualizes, compares, and tracks national-level legal recognition of community-based freshwater rights within a framework designed to capture the legal entitlements that are most essential for securing community-based freshwater tenure.** The study analyzes the legal frameworks of 15 countries (13 low- and middle-income countries and 2 high-income countries) that are home to more than 1.1 billion rural inhabitants and contain over 25 percent of the renewable water resources found across Africa, Asia, and Latin America. Focus countries were chosen to represent diverse regions, biomes, levels of freshwater availability, economic status, and legal traditions, as well as to include states that share transboundary watercourses and to enable comparability with RRI's existing datasets on land and forest tenure.

The methodology adapts and builds on existing RRI methodologies for conceptualizing and tracking community land and forest tenure rights in order to assess the statutory freshwater rights that are most essential to communities' water security. In doing so, this methodology breaks new ground by **conceptualizing community-based water tenure as a bundle of community-based freshwater rights that interact to support and promote communities' physical survival, cultural vitality, livelihoods, and sustainable development.** It accounts for the complex, overlapping entitlements established by a variety of national laws, regulations, and case law comprising "**community-based water tenure regimes**" (CWTRs). The CWTR is the study's primary unit of analysis and is defined as "a distinguishable set of national-level, government-issued laws and regulations governing all situations in which freshwater rights of use and at least either governance or exclusion are held at the community level." Through the identification and examination of 39 CWTRs across the 15 countries studied, this assessment aims to further develop the evolving concept of "water tenure" with a specific focus on Indigenous, Afro-descendant, and local communities and to support a more holistic understanding of community-based resource tenure by government bodies, development actors, civil society, private sector actors, and rightsholders themselves. This baseline analysis will be updated and expanded over time to enable examination of trends.

The analysis evaluates rights according to three analytical elements capturing critical aspects of community-based water tenure: **national-level threshold questions, CWTR-level threshold questions, and legal indicators.** Communities **use** freshwater for many purposes (including cultural, domestic, livelihood, and commercial purposes), and may decide to **transfer** related entitlements to participate in water markets or engage in other business dealings. In order to protect the freshwater resources they rely on, it is also paramount that communities have the rights to **exclude** third parties from freshwater resources; **govern** freshwater through the creation, implementation, and enforcement of rules and management decisions; participate in **due process** procedures (prior notice, consultation, and appeals) to assert their rights against third parties; and receive **compensation** where their freshwater rights have been negatively impacted by third party actions. The legal recognition of these rights may or may not be rooted in the broader acknowledgement of communities' **customary rights to water** or natural resources, **the nexus between communities' recognized land and water rights**, or the **human right to water**. Because of their unique circumstances, **women's specific rights to use and govern community waters** are also assessed.



This analysis considers rights to both surface and groundwater sources; however, it does not systematically assess community-based rights to provide or receive water services and utilities. Furthermore, this report does not analyze the diverse array of customary laws, practices, or traditions that communities may rely on when using and governing freshwater resources, nor does it track or aggregate findings concerning the realization or implementation of either communities' or community women's formally recognized resource rights. This report's focus on government-issued laws does not suggest or imply that legislative or regulatory reforms are the sole solution to the multitude of challenges encountered by communities, or women within these groups, but is intended to establish a methodology by which the comparative strengths and weaknesses of national legal frameworks recognizing and protecting community-based freshwater rights can be evaluated, monitored, and improved over time.

## Findings

**The analysis finds that, at a minimum, communities' rights to use and govern freshwater exist in 14 of the 15 countries analyzed.** Over three-quarters of the 39 CWTRs in this study adequately recognize communities' rights to: use water for cultural/religious, domestic, and livelihood purposes in perpetuity; contribute to freshwater governance through rulemaking, planning and management, and internal dispute resolution processes; domestic due process; and customary water rights. Comparatively fewer of the 39 CWTRs analyzed adequately protect communities' rights to receive compensation from both public and private actors when their water rights are infringed (64 percent); exclude third parties from freshwater resources (62 percent); transfer freshwater rights (51 percent); use freshwater for commercial purposes in perpetuity (51 percent); and enforce community-based rules against third parties (18 percent). Across the countries analyzed, **the presence of a legislative "land-water nexus" (where communities' legal water rights are dependent upon their recognized rights to community lands or forests) is often an essential factor in communities' ability to claim, protect, and realize their water tenure rights.** Overall, the 25 CWTRs with a recognized land-water nexus tend to more consistently and adequately protect communities' freshwater rights of use for livelihood purposes, transferability, exclusion, rulemaking, internal dispute resolution, external enforcement, and domestic compensation, as well as recognition of their customary water rights and of women's rights to use and/or govern community waters.

Across CWTRs, **communities face a broad range of procedural obstacles to realize their water use, governance, and exclusion rights. These requirements (such as water use permits, incorporation requirements, and other administrative mandates) commonly limit the duration of communities' rights to use freshwater and can hinder the accessibility and affordability of freshwater resources for communities.** In particular, communities' rights to use water for livelihood and commercial purposes are frequently subject to permitting, and sometimes additional administrative, requirements. Commercial water uses are the most heavily burdened by permitting requirements among the use, governance, and exclusion indicators, with 29 (74 percent) of the 39 CWTRs in this analysis requiring a commercial use permit for communities wishing to pursue community enterprises. In well over one-third (44 percent, or 17 CWTRs) of the 39 CWTRs analyzed, communities require a permit for abstracting water for livelihood needs.

**The ability of communities to protect the freshwater resources they depend on through rights of exclusion and external enforcement is inadequately supported by existing national laws.** External enforcement is the least frequently recognized CWTR-specific right captured by this analysis. Only 7 (18 percent) of the 39 CWTRs identified recognize communities' right to enforce their freshwater rules against third parties, and 1 additional CWTR (3 percent of the 39 CWTRs analyzed) recognizes external enforcement rights on a case-by-case basis. Communities' exclusion rights are adequately recognized across 24 (62 percent) of the 39 CWTRs analyzed, and a further 8 CWTRs (21 percent of the 39 CWTRs analyzed) only recognize these rights on a case-by-case basis. Moreover, governments fail to protect the rights of communities within their borders from transboundary damages. Just 2 (13 percent) of the 15 countries analyzed recognize communities' due process rights within transboundary contexts.

**Furthermore, despite commitments in all reviewed countries to eliminate all forms of discrimination against women and improve gender equity in water management, laws regulating community-based freshwater rights are typically gender-blind.** Just one-third (13) of the 39 CWTRs analyzed provide specific legal guarantees for women's rights to use and/or govern community freshwater resources.

## Regional Findings

**The study's findings at the regional level are mixed; no region provides consistently stronger legal protections across CWTRs or for all of the legal indicators assessed.** Nevertheless, when compared with CWTRs assessed in Asia and Latin America, the **10 CWTRs identified in Africa** (Kenya, Liberia, Mali, and Zambia) most consistently recognize: communities' right to resolve internal disputes based on community rules; transfer any of their freshwater rights; exclude third parties from freshwater resources; and women's rights to use and/or govern community waters. Although all legal frameworks assessed in Africa recognize communities' rights to use freshwater for commercial purposes, these rights are more frequently subject to time limitations than CWTRs across the other regions studied. Notably, while Morocco was also included in this analysis, no CWTRs were identified. All **9 CWTRs analyzed across 4 countries in Asia** (Cambodia, India, Nepal, and Vietnam) adequately recognize communities' rulemaking, planning and management, and domestic due process rights. However, when compared to CWTRs analyzed in Africa and Latin America, reviewed CWTRs in Asia provide the least consistent protection of communities' exclusion, external enforcement, and domestic compensation rights. The **20 CWTRs analyzed across 6 countries in Latin America** (Bolivia, Chile, Colombia, Mexico, Panama, and Peru) least frequently recognize communities' rights to transfer their rights to freshwater, resolve internal conflicts through community-level dispute resolution processes, and women's rights to use and/or govern community waters. Compared to other regions, commercial use rights in the Latin American CWTRs reviewed are subject to the greatest proportion of procedural obstacles. Although Latin American CWTRs were least frequently characterized by a land-water nexus, several CWTRs provide stronger protections for water rights within legally recognized community lands even though the recognition of water rights is not directly dependent upon land rights.

## Recommendations for Action

To address the legislative gaps and constraints that hinder Indigenous Peoples', Afro-descendants', and local communities' abilities to fully realize their freshwater tenure rights, governments, civil society actors, and international development institutions operating across the land, forest, water, and gender sectors should work collaboratively to:

1. accelerate the legal recognition of community-based freshwater rights through support to legislative reforms that recognize and protect the full bundle of community-based water tenure rights, acknowledging that communities' land and forest rights often form a critical basis for the recognition of their freshwater rights;
2. address legislative gaps and weaknesses that impact the realization of community-based water tenure rights, including through the harmonization of existing sectoral laws and regulations to support communities' effective resource protection and governance; and
3. strengthen legal protections for Indigenous, Afro-descendant, and local community women's specific water use and governance rights in ways that support inclusive community-based water and land tenure, and provide expanded livelihoods and economic opportunities.

To support these changes, governments and civil society actors will need to continue ongoing efforts to refine and build consensus around the concept of "water tenure," extend analysis of community-based water tenure rights across regions and countries, and ensure that tenure-based approaches are clearly integrated into decision-making processes and initiatives related to forest, land, and freshwater governance. Ultimately, the ability of Indigenous Peoples, Afro-descendants, local communities, and the women within those communities to sustainably govern, benefit from, and protect critical freshwater resources depends on securing and advancing their rights to both water and territories.

## Chapter 1: Introduction

### *Harnessing the Power of Community-Based Tenure to Secure and Strengthen the Freshwater Rights of Indigenous Peoples, Afro-descendants, and Local Communities*

---

Approximately 2.1 billion people worldwide lack access to safe, readily available water,<sup>1</sup> and the impacts of climate change, unsustainable development, and rapid population growth are placing increasing pressure on already stressed freshwater resources. Despite this mounting water crisis and the central role that water security plays in ensuring prosperity and sustainable development, the rights of communities who collectively hold, manage, and directly depend on freshwater resources continue to be inadequately recognized and protected. The realization of communities' freshwater tenure rights is essential to their ability to maintain food security and sustainable livelihoods, as well as to achieve other essential objectives, including health, women's rights, education, peace and stability, climate change mitigation and adaptation, land restoration, environmental conservation, energy, local industry, and economic advancement.<sup>2</sup> Furthermore, the limited or inadequate recognition of communities' freshwater rights compromises the ability of countries to protect basic human rights, realize many of the Sustainable Development Goals (SDGs), and achieve global climate, restoration, and biodiversity goals. In this context, the need to clearly define and legally secure the freshwater rights of Indigenous Peoples, Afro-descendants, and local communities who govern the watersheds and landscapes that sustain healthy water ecosystems cannot be overstated.

Indigenous Peoples, Afro-descendants, and local communities—up to 2.5 billion people worldwide—are embroiled in struggles to gain legal recognition of land, water, and other resources found within the vast territories they have traditionally stewarded.<sup>3</sup> Globally, communities' rights to these resources remain far from secure. While their territories span over half the world's land area, communities legally own just 10 percent of land globally.<sup>4</sup> Yet progress is being made—since 2002, communities' forest tenure advocacy has prompted a global increase in the forest area legally recognized as owned by and designated for communities of at least 40 percent (152 million hectares, or an area approximately three times the size of Spain<sup>5</sup>).

The success of these efforts to secure community land rights have greatly benefitted from three interrelated developments:

1. the consistent application of *land tenure*—a social construct encompassing the relationship (whether legally or customarily defined) between individuals or groups with respect to land<sup>6</sup>—to the specific situation of Indigenous Peoples, Afro-descendants, and local communities, who possess special relationships with territories and terrestrial resources that they have historically or customarily stewarded at the community level;
2. the conceptualization of an interrelated bundle of forest and land *tenure rights* that, when realized by communities as rightsholders, are now understood to form a cornerstone of their self-determination, cultural identities, livelihoods, and economic advancement; and
3. the wide acceptance of *secure community land tenure rights* as a prerequisite for sustainable land governance and the broad realization of justice, sustainable development, and climate goals worldwide.

**Notwithstanding the proven positive impact that conceptualizing and articulating community-based land and forest tenure has had on advocacy outcomes for Indigenous Peoples, Afro-descendants, and local communities, and particularly for the women within these groups, advocacy and policymaking processes regarding community water rights have yet to consistently employ *community-based freshwater tenure* as a tool to frame critical discourse.**

Indeed, the definition and understanding of “water tenure,” a term describing specific relationships between groups or individuals as they relate to water resources,<sup>7</sup> is still evolving. Moreover, formal acknowledgement of the linkages between the waters that communities depend on for their domestic, livelihood, cultural, religious, and commercial needs and the lands and forests they steward (and to which they also may or may not have recognized rights) has yet to gain adequate traction among governments and development practitioners alike. **This analysis therefore introduces a tailored “bundle of rights” approach that accounts for the unique characteristics of water, how those characteristics define and shape communities' relationships with their water resources, and how communities' water rights interact with their land and forest tenure rights.**

## 1.1 The Benefits of Conceptualizing and Supporting Communities' Freshwater Tenure Rights

For many Indigenous Peoples, Afro-descendants, and local communities, complex customary or traditional water tenure systems—that may or may not be recognized under formal law—govern water resource allocation, use, and development in practice, and are inextricably linked to communities' land tenure systems. As such, efforts to strengthen communities' water security should employ an integrated tenure-based approach capable of considering and responding to relationships within and between the bundles of rights communities hold to water, land, and other natural resources. Increased attention to communities' freshwater tenure rights, along with accelerated cross-sectoral efforts to recognize and manage the crucial interface between communities' water and land tenure in particular, can generate numerous benefits for people and freshwater ecosystems alike. These benefits include the following:

**(1) Applying a tenure-based approach to legal reform processes and ensuring that laws effectively support community practices can facilitate the effective realization of community-based freshwater and land rights, improve territorial management, and reduce the likelihood of water conflicts.**

In contrast to governments—which primarily regulate natural resources through sectoral approaches to water, forest, and land governance—the customs, practices, and traditional knowledge systems of many Indigenous Peoples, Afro-descendants, and local communities emphasize the need to maintain a balance between these necessarily connected resources, and to manage those resources for both the benefit of the community and the sustainability of the ecosystem. Communities' abilities to survive and maintain their cultural and religious practices are reliant on maintaining delicate social-ecological interdependencies, often through adaptive approaches based on traditional ecological knowledge.<sup>8</sup> As such, community-led efforts to protect their territories from external threats commonly encompass a range of diverse cultural and ecological resources within a given area.<sup>9</sup>

Legislative and policy interventions are generally more effective when they are gender-sensitive while respecting and resonating with communities' existing institutional arrangements, decision-making processes, norms, and practices concerning the protection and management of their natural resources.<sup>10</sup> Thus, an integrated tenure approach to legal reform and associated processes that considers the full range of rights shaping communities' relationships with their inter-related aquatic and terrestrial resources is better able to capture and reflect effective community-based resource governance practices and local ecological knowledge.<sup>11</sup> Given the pervasive dependence of legally recognized community water rights on the recognition of community land and forest rights,<sup>12</sup> integrated tenure approaches are also more likely to result in a secure legal basis for water tenure rights by accounting for potential overlaps or conflicts with other land and resource legislation. Moreover, the absence of a cross-sectoral tenure approach during legal reform processes pertaining to both water and land is apt to create or reinforce legislative weaknesses that exacerbate pre-existing inequalities across water users. As described by the Food and Agriculture Organization of the United Nations (FAO):

When it comes to water sector reforms, it is a major mistake to ignore questions of water tenure and the economic and political power that derive from water tenure. Reforms based on integrated water resources management (IWRM) or any other policy 'solutions' that fail to take account of water tenure and the power relationships that derive from water tenure are doomed to failure. This is because all water sector reforms are about change, and these reforms inevitably create winners and losers. Many [already powerful water users] may benefit from an absence of reform or a failed or flawed reform.<sup>13</sup>

**(2) Statutory recognition of community-based freshwater tenure can strengthen community-led water governance institutions to empower communities, and especially the most frequently marginalized community members, to participate in making critical decisions directly or indirectly impacting their overall freshwater rights.**

Communities' water security depends on their rights to use freshwater resources for a variety of purposes, and the ability to locally govern such resource systems without undue interference from others.<sup>14</sup> Unlike land, however, water is a fluid, fugitive, and fluctuating resource that depends on a complex cycle of movement, with shifting physical states and flow patterns that shape and transform landscapes and can create or transcend political boundaries. These unique qualities largely preempt the possibility of private

water “ownership” (as opposed to use rights) under most modern regulatory frameworks for water.<sup>15</sup> Most governments legislatively assert to either own water resources within their territory or—more commonly—to hold water in trust on behalf of the public,<sup>16</sup> and must regulate an ever-increasing number of overlapping claims to this necessarily shared and oftentimes scarce resource. Ensuring legal recognition of communities’ freshwater rights within the context of such competing demands is thus essential to the security of their resource tenure.

The need to strengthen communities’ decision-making power concerning water has never been more urgent. **The freshwater rights of Indigenous Peoples, Afro-descendants, and local communities, and particularly the women within these communities, are under escalating pressure worldwide due to climate change, unsustainable development, accelerating land use and land cover changes, increasing levels of pollution, and shifting demographic realities.** Climate change is already visibly impacting the global hydrological cycle<sup>17</sup> and the subsequent distribution, timing, predictability, availability, and quality of freshwater across scales and geographies. Together with shifting dietary preferences,<sup>18</sup> expanding food production needs,<sup>19</sup> and the rapidly increasing energy and resource demands of a growing world population, the pressures exerted on communities’ land and freshwater resources are contributing to worrying levels of water scarcity and ecosystem degradation.<sup>20</sup> This, in turn, further exacerbates threats of displacement, violence, and conflict.<sup>21</sup> Over the five years from 2014-2018, at least 866 environmental defenders around the world lost their lives while protecting their land, forests, and waters, and among these at least 57 murders were linked to struggles against dams or other impacts to their water resources.<sup>22</sup>

**In a context of persistent marginalization and threats, the inability to substantively participate in decision-making processes concerning water negatively and disproportionately impacts the food security, health, physical safety, and cultural integrity of Indigenous Peoples, Afro-descendants, and local communities.** In many circumstances, communities are not aware of their full suite of freshwater rights until devastating development activities with multi-generational environmental impacts are well underway.<sup>23</sup> As a result, communities’ interactions and negotiations with private and public entities impacting their territorial waters seldom reflect principles of free, prior, and informed consent (FPIC), despite the inclusion of FPIC as applicable to territorial waters under the UN Declaration on the Rights of Indigenous Peoples (UNDRIP), as well as some national laws and caselaw.<sup>24</sup> Communities’ abilities to secure compensation and benefits when investments or developments do impact their freshwater rights are commonly compromised by power imbalances and inadequate prior notification and consultation<sup>25</sup>—a situation that is often worse for the women and children within these communities.

Rural women and children are disproportionately impacted by the negative consequences of water tenure insecurity and climate change, including those most closely related to water such as floods, droughts, and famine.<sup>26</sup> Women and girls also have specific water, sanitation, and hygiene (WASH) needs that render their health and educational opportunities especially dependent on sufficient access to good quality water, while also making them more susceptible to water-related illness. Moreover, women often have differentiated responsibilities and needs concerning domestic and productive uses of water. They tend to have primary responsibility for decision-making concerning daily household needs, including the collection and use of water for drinking, cooking, sanitation, and agricultural activities.<sup>27</sup> Furthermore, women supply almost half of on-farm labor in low- and middle-income countries (LMICs), but often face specific barriers in accessing irrigation technologies.<sup>28</sup> Given their unique freshwater responsibilities and requirements, freshwater insecurity often places a particularly heavy burden on the women within Indigenous, Afro-descendant, and local communities.

### **(3) Integrated, tenure-based approaches to community land, forest, and water governance can play a vital role in the maintenance of ecosystem functions and services at multiple scales.**

Water sustains all life on earth. In addition to fulfilling basic human needs, water is a necessary input for most productive uses of land, a critical element of land restoration efforts,<sup>29</sup> and affects the capacity of ecosystems to adapt to external shocks and disturbances, including climate impacts.<sup>30</sup> Forests, trees, grasslands, and other ecosystems play an essential role in the regulation of both surface and groundwater flows, acting as natural water filters that improve soil infiltration and water drainage; minimize soil erosion, sedimentation, and landslides; maintain flows; and influence both local and distant rainfall patterns.<sup>31</sup> Water is a particularly important component of forest ecosystems, which consume comparatively high

volumes of water,<sup>32</sup> without which they cannot effectively store carbon.<sup>33</sup> As such, any land use and land cover change that directly affects the integrity of terrestrial ecosystems invariably impacts the flow, variability, quantity, and quality of freshwater as well.<sup>34</sup>

An integrated and harmonized approach to water tenure that takes into account the ecological (as well as social and cultural) linkages between water, forests, and land can result in positive outcomes extending far beyond Indigenous Peoples', Afro-descendants', and local communities' territories. Approximately three quarters of the world's freshwater for domestic, agricultural, industrial, and ecological needs is supplied by forested watersheds and wetlands.<sup>35</sup> Substantial portions of these forests are legally or traditionally held or claimed by communities who are now widely recognized as having the traditional and contemporary knowledge, greatest incentives, and best overall positioning to sustainably manage forest ecosystems.<sup>36</sup> As tenure security directly affects communities' capacity and willingness to protect and sustainably manage their resources, legal recognition and respect for community-based tenure rights to both water and forests has the potential to benefit billions of urban and rural water users. Moreover, adequately recognized and supported community water (and land) rights would also empower communities to implement local climate change adaptation strategies and further amplify many of the environmental gains that are more commonly associated with the realization of effective community forest and land governance.<sup>37</sup>

## 1.2 Purpose of this Analysis

Despite the clear benefits of an integrated, tenure-based approach to the legal recognition of communities' freshwater rights, the concept of "water tenure" remains nascent and excluded from international standards for responsible governance of land, forest, and resource tenure, in particular the Voluntary Guidelines on the Responsible Governance of Tenure of Land, Fisheries and Forests in the Context of National Food Security (VGGT).<sup>38</sup> Moreover, the most fundamental legal entitlements that support communities' water tenure security have yet to be cohesively articulated or generally endorsed.

**Recognizing that the extent to which these community-based tenure rights are legally recognized remains largely unmonitored at a global level, this report aims to close this critical knowledge gap through a framework designed to conceptualize, compare, and track national-level legal recognition of the most essential rights for securing community-based freshwater tenure.** In doing so, this pathbreaking analysis developed by the Rights and Resources Initiative (RRI) in collaboration with the Environmental Law Institute (ELI) aims to support the decision-making needs of key stakeholders at local, national, and international levels, and facilitate the following key objectives in support of the natural resource rights of Indigenous Peoples, Afro-descendants, and local communities, including those of women within these groups. Specifically, the report seeks to:

1. equip Indigenous Peoples, Afro-descendants, local communities, women within these groups, and other key stakeholders with information on the status of legally recognized community-based freshwater rights that can be used to advocate for communities' resource rights and to ensure that critical discourse on community-based tenure accurately reflects the legal relationships between land, forests, and water;
2. assist government bodies, development actors, civil society, and other stakeholders to more consistently collaborate across land, forest, water, gender, and other sectors to effectively protect communities' water tenure through improved inter-sectoral harmonization of legal frameworks to address linkages between terrestrial and freshwater resources in a gender-sensitive and responsive manner;
3. further develop the concept of "water tenure," with a specific focus on Indigenous Peoples, Afro-descendants, and local communities and the core legal entitlements comprising their water tenure security; and
4. establish a framework for assessing community-based freshwater tenure that can be applied globally, as additional data and resources become available.

**Ultimately, this analysis is motivated by the essential truth that, in practice and under customary and national laws, communities' use and governance of aquatic and terrestrial resources are linked in crucial ways that determine their wellbeing, cultural survival, sustainable development, and ability to protect and sustainably manage the world's dwindling forests, lands, and other ecosystems.** To better track the status of these interdependent resources, future iterations of this study will expand and update the analysis—with the ultimate goal of developing

a baseline on the community-based freshwater rights that are legally recognized by the majority of the world's LMICs—just as RRI's existing global databases tracking the legal recognition of tenure rights to community lands and forests are continuously expanded and updated. Thus, this report is part of a larger, prolonged effort to monitor global progress and setbacks with respect to a comprehensive array of water, forest, and land tenure rights held by Indigenous Peoples, Afro-descendants, local communities, and the women within these groups.



## Chapter 2: Methodology

**This study is the first to employ an innovative and globally comparative analytical framework to assess the extent to which national-level legal frameworks recognize the freshwater rights of Indigenous Peoples, Afro-descendants, and local communities through distinct “community-based water tenure regimes” (CWTRs).** The methodology adapts and builds on existing RRI methodologies for conceptualizing and tracking community land and forest rights in order to assess the bundle of legally recognized freshwater rights that are most essential to communities’ water security. In doing so, this methodology breaks new ground by accounting for the complex, overlapping entitlements established by a variety of national laws, and facilitates consideration of the myriad ways in which legal instruments affect the relationship between Indigenous Peoples, Afro-descendants, local communities, women within these groups, and the freshwater resources they rely upon and steward. This assessment will be updated and expanded over time to enable analysis of longitudinal trends.

The Freshwater Tenure Methodology was developed through a series of expert consultations, and further refined based on lessons learned through its application to three pilot countries. The legal analysis underpinning this report was subsequently subject to a rigorous expert review process whereby preliminary data for all 15 countries studied was submitted to individuals with country-level expertise to verify its accuracy and completeness. Overall, 43 experts contributed to the review process. Efforts were made to include all relevant laws and regulations in the countries enforceable as of January 1, 2019, and to ensure that legal interpretations reflect country-specific nuances.

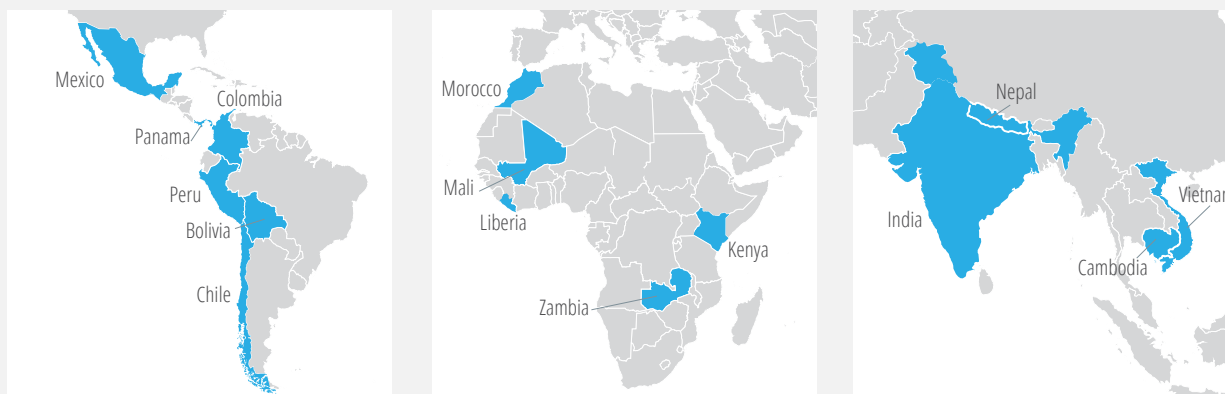
### 2.1 Scope of Analysis

The 15 African, Asian, and Latin American countries analyzed in this report are home to over 1.1 billion rural inhabitants, or nearly one-third of the global rural population.<sup>39</sup> They contain over 25 percent of the renewable water resources across Africa, Asia, and Latin America,<sup>40</sup> and include two high-income countries (HICs) (Chile and Panama) alongside 13 LMICs (see Figure 1).<sup>41</sup> Countries were selected based on the following criteria:

- geographical and biophysical diversity within and across regions;
- balanced representation of water-scarce and water-abundant countries;
- learning from diverse legal traditions (i.e., common law, civil law, religious law, customary law, and Soviet-era law jurisdictions) and legislative approaches to regulating water resource rights;
- representation of countries with variable economic status, with a focus on LMICs and a smaller subset of HICs; and
- inclusion of states that share transboundary watercourses, in order to assess implications of transboundary freshwater issues on community water rights.

**Figure 1**

**This analysis includes the following 15 countries: Bolivia, Cambodia, Chile, Colombia, India, Kenya, Liberia, Mali, Mexico, Morocco, Nepal, Panama, Peru, Vietnam, and Zambia.**



Source: United Nations, DESA, Population Division, <http://population.un.org/wpp/>



Additional considerations included the availability of comparable data on community-based land and forest tenure in the selected countries. All analyzed countries are included in at least one of RRI's four pre-existing global Tenure Tracking datasets on communities' land and forest tenure rights; complementary tenure data is available across all four pre-existing datasets in 10 out of 15 featured countries. This overlap, alongside the common "bundle of rights" approach that is applied across RRI's datasets, enables a more comprehensive understanding of Indigenous Peoples', Afro-descendants', local communities', and the women within those groups' forest, land, and now freshwater rights (see Box 1). Future updates of this analysis will expand country coverage.

All 15 countries analyzed are party to: the International Covenant on Economic, Social and Cultural Rights (ICESCR), which provides the basis for the human right to water; the Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW), which sets international standards for gender equity and women's participation in governance and decision-making (including, especially, rural women); the Convention on Biological Diversity (CBD); and various international treaties and basin-level and regional agreements that commit countries to principles of international law relevant to water tenure in the context of shared, transboundary watercourses. Six of the countries analyzed are also parties to ILO Convention No. 169 (see Table 1).

This analysis examines the legally recognized freshwater rights of Indigenous Peoples, Afro-descendants, and local communities to both surface and groundwater sources and, because of their unique circumstances, women's specific rights to community waters are also assessed. The analysis does not, however, systematically assess community-based rights to provide or receive water services and utilities.

The following sources of national law are considered in this analysis:

- national constitutions;
- national laws and regulations on: water; the recognition and protection of Indigenous Peoples', Afro-descendants', and local communities' rights; land, forest, and other resource tenure; and relevant sectoral laws pertaining to agricultural water use, environmental and natural resource protection, fisheries, mining, and energy;

**Table 1** Countries Party to International Treaties and Regional Agreements

	International Covenant on Economic, Social and Cultural Rights (ICESCR), 1966	Convention on the Elimination of all Forms of Discrimination Against Women (CEDAW), 1979	ILO Indigenous and Tribal Peoples Convention, 1989 (No. 169)	UN Convention on the Law of the Non-Navigational Uses of International Watercourses, 1997	Convention on Biological Diversity, 1992	Other Basin-level or Regional Water Agreement(s) <sup>42</sup>
Bolivia	✓	✓	✓		✓	✓
Cambodia	✓	✓			✓	✓
Chile	✓	✓	✓		✓	✓
Colombia	✓	✓	✓		✓	✓
India	✓	✓			✓	✓
Kenya	✓	✓			✓	✓
Liberia	✓	✓			✓	✓
Mali	✓	✓			✓	✓
Mexico	✓	✓	✓		✓	✓
Morocco	✓	✓		✓	✓	✓
Nepal	✓	✓	✓		✓	✓
Panama	✓	✓			✓	✓
Peru	✓	✓	✓		✓	✓
Vietnam	✓	✓		✓	✓	✓
Zambia	✓	✓			✓	✓

- pertinent case law from the highest courts of each jurisdiction (i.e., supreme or constitutional court levels); and
- other relevant national-level legal instruments that impact Indigenous Peoples', Afro-descendants', local communities', or other community-based water user associations' (WUAs) water tenure.

Customary rights to freshwater are captured to the extent that these rights are recognized by national law. Analysis of relevant international treaties that are self-executing (meaning that upon ratification they are considered enforceable as domestic law, without any additional legislative approval) under a country's legal framework may only be referenced alongside national laws to support an assessment. This approach is not meant to imply that international treaties are less legally binding than countries' domestic laws. Instead, it reflects this study's principal aim of evaluating the comparative strength of countries' national laws. Where international treaties have been incorporated into national law through legislative processes, those laws are included in the assessment. Notably, non-binding policy documents are not considered.

Finally, this study's examination of transboundary due process (discussed below) is the only context in which international, regional, and basin-level treaties, agreements, and court decisions are analyzed where applicable. Notwithstanding their potential relevance to communities' due process rights in transboundary contexts, the domestic laws of countries that fall outside the scope of this assessment are not analyzed.

## 2.2 Unit of Analysis

This study determines if and how various national legal frameworks within 15 focus countries recognize the freshwater rights of Indigenous Peoples, Afro-descendants, and local communities through **community-based water tenure regimes (CWTRs), this study's unit of analysis**. A CWTR is defined as a *distinguishable set of national-level, government-issued laws and regulations governing situations in which freshwater rights of use and at least either governance or exclusion are held at the community level*. The specific community (or communities) that may exercise freshwater rights within a particular CWTR is determined by the scope of the laws comprising each regime. CWTRs may pertain to specific ethnic groups, recognized community or customary territories, WUAs comprised of or joined by community members, or other institutions such as community land and forest management bodies that also possess freshwater rights. Due to the variety of policy motivations behind CWTRs both within and across countries, the range and strength of community-based freshwater rights recognized within CWTRs vary significantly. Across the 15 countries assessed, 39 CWTRs were identified, with the number of CWTRs per focus country ranging from zero (Morocco) to 5 (Panama).

### Box 1

#### Overlaps between community-based water tenure and land tenure

In many instances, the data on freshwater rights found in this report may be considered alongside RRI's other Tenure Tracking databases to establish a more comprehensive picture of the range of terrestrial and resource rights held by Indigenous Peoples, Afro-descendants, local communities, and the women within those communities under various national-level legal frameworks. Such data integration is possible because the CWTR is a freshwater-specific version of the "community-based tenure regime" (CBTR), which serves as the unit of analysis across all of RRI's Tenure Tracking methodologies. This approach includes a qualitative "bundle of rights" methodology, which assesses the extent to which specific rights to forests are recognized under national law for communities, and a qualitative gender methodology, which determines the extent to which women within these same communities have legally recognized tenure rights. A comparison of the CBTRs identified in those analyses frequently reveals a similarity in legislative scope (and oftentimes in title) with CWTRs. These similarities reflect the manner in which some countries recognize community-based rights to aquatic and terrestrial resources within the same territory or geographical area, which results in significant overlap between the national laws comprising CWTRs and those comprising community-based forest and land tenure regimes. In such instances, this analysis may be considered alongside RRI's legal data on the bundle of rights and women's rights to community forestlands in order to gain a more comprehensive picture of the array of legally recognized community-based resource rights applicable to particularly situated communities.

## 2.3 Key Terms

The following key terms are utilized throughout this report. In some instances, definitions have been adjusted from those found in previous RRI analyses, to reflect this study's focus on water resources:

- **Freshwater:** All freshwater resources, including surface and groundwater.<sup>43</sup>
- **Community:** A group of rural people (Indigenous, Afro-descendant, or otherwise) who share a common interest or purpose in a particular territory or natural resource, and who primarily hold rights to those lands and/or resources at the community level.
- **Community practices:** The realization by Indigenous Peoples, Afro-descendants, and local communities of their communities' norms; such practices may include the exercise of customary laws, cultural traditions, and community-based institutional processes.
- **Community-based tenure:** Arrangements in which the right to own or govern land and natural resources (such as freshwater) is held at the community level by Indigenous Peoples, Afro-descendants, and/or local communities.
- **Community lands and community forests:** Lands or forests subject to community-based tenure.
- **Tenure regime:** A set of national laws constituting formal legal recognition of a specific type of tenure arrangement.
- **Community-Based Water Tenure Regime (CWTR):** A distinguishable set of national-level, statutory laws and regulations governing all situations in which freshwater rights of use and at least either governance or exclusion are held at the community level.

## 2.4 Elements of the Methodology and Definitions of Legal Indicators

**The concept of community-based water tenure continues to evolve, but legal entitlements analyzed under this methodology constitute the core legal rights necessary to enable secure community-based water tenure as presented in this analysis.** This subsection outlines the three analytical elements (national-level threshold questions, community-level threshold questions, and legal indicators) of this methodology (also summarized in Table 2), while Chapter 3 provides a detailed discussion concerning the content and significance of the rights covered, detailing why these entitlements are especially vital to communities' water security.

### 2.4.1 National-Level Threshold Questions



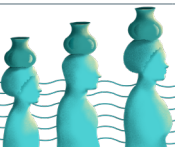
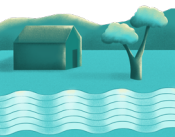













This study's two **national-level threshold questions** evaluate elements of legally recognized freshwater rights that impact all people within a given country, and that strongly influence the strength and security of community-based freshwater rights. Both of these questions are answered by either "yes" or "no" responses. The national-level threshold question on the **human right to water** assesses whether domestic law considers the right to water to be a human right as it is articulated in international law. Notably, this threshold question does not assess whether the human right to sanitation is recognized, and legal rationales supporting this assessment do not rest upon international treaties or agreements deemed to be self-executing (enforceable upon ratification, without any additional legislative action) under national law. The second national-level threshold question on **transboundary due process** determines whether a binding, basin-level agreement or international treaty recognizes due process guarantees of prior notice, consultation, and appeal to all potentially impacted water users. As explained above, this threshold question does not consider the domestic laws of any non-focus countries that share a transboundary watercourse with a country featured in this analysis.

### 2.4.2 CWTR-Level Threshold Questions

Analysis of each CWTR is further contextualized by three **CWTR-level threshold questions** that are intended to provide critical context within which the use, governance, and exclusion rights legally afforded to each CWTR should be understood. These three community-level threshold questions respectively determine whether each CWTR identified: (1) recognizes communities' customary water rights, laws, traditions, and/or practices; (2) renders community freshwater rights dependent on recognized rights to community lands or forests (this legislative arrangement is hereinafter referred to as a "land-water nexus"); and (3) specifically recognizes women's rights to use and/or participate in the governance of community freshwater resources.<sup>44</sup> All questions are answered by a "yes," "no," or "case-by-case" response.

Table 2

Summary of Threshold Questions and Legal Indicators, and the Questions Each Are Designed to Answer

National-Level Threshold Questions				
	Does national law recognize the human right to water?			Does any treaty require that all potentially impacted water users are notified in advance and consulted with respect to decisions or proposed developments that could adversely impact their water rights? Do all water users have the right to appeal decisions/actions that impact water users' freshwater rights?
CWTR-Level Threshold Questions				
	Within each CWTR analyzed, does national law recognize communities' customary water rights, laws, traditions and/or practices?			
	Within each CWTR analyzed, are any community water rights dependent on their legally recognized land and/or forest rights?			
	Within each CWTR analyzed, does national law explicitly and affirmatively acknowledge the water use and/or governance rights of women within Indigenous, Afro-descendant, local communities, and/or water user groups?			
CWTR-Level Legal Indicators				
Use	Do CWTR-specific laws recognize community-based rights to use freshwater for...			
		cultural/religious purposes?		domestic purposes?
		livelihoods purposes?		commercial purposes?
Transferability		Do CWTR-specific laws recognize the right of communities to sell, lease, or otherwise transfer any of their rights to freshwater?		
Exclusion		Under CWTR-specific laws, do communities have the right to exclude any third parties from freshwater resources?		
Governance	Do CWTR-specific laws recognize communities' right to...			
		establish rules determining who can access, use, develop or otherwise impact freshwater and freshwater resources under the communities' control?		utilize community-based mechanisms/rules to resolve internal freshwater conflicts?
		make decisions about or implement plans concerning freshwater use, development, protection, allocation, and infrastructure, in accordance with community-based rules?		enforce community-based rules when violated by external actors?
Domestic Due Process and Compensation	Do CWTR-specific laws...			
		require that communities are notified in advance and consulted when proposed actions within a country's borders could impact their freshwater rights? In addition, do communities within the same country have the right to appeal decisions/actions that (potentially) impact their freshwater rights?		recognize that communities are entitled to compensation from the government and any private entities that are responsible for infringing upon or extinguishing their freshwater rights?

### 2.4.3 Legal Indicators and Sub-Indicators

The methodology also assesses five **legal indicators**—use, transferability, exclusion, governance, and domestic due process and compensation—along with associated **sub-indicators** for each identified CWTR. These indicators and sub-indicators are evaluated based on the adaptive assessment criteria described in Section 2.5.

The methodology distinguishes between four types of legally recognized freshwater use rights broadly relevant to water users worldwide, and captures the duration of each of these recognized use rights through the accordence of full credit where rights are perpetually recognized. These sub-indicators capture the use of water for:

- **religious and cultural purposes;**
- **domestic purposes**, i.e., those satisfying basic human and household needs, including for drinking water, washing, food preparation, and sanitation necessary for subsistence/survival;
- **livelihood purposes**, i.e., small-scale/household-level productive uses such as irrigation for agriculture, fisheries, brickmaking, or similar that satisfy needs beyond subsistence/survival; and
- **commercial purposes**, i.e., the use of water as an input for generating income at a level higher than that necessary to maintain livelihoods.

Additionally, the analysis determines whether national law:

- renders communities' specific use rights contingent on the fulfillment of procedural requirements such as a permit or the need to incorporate as a formal legal entity;<sup>45</sup> and/or
- explicitly prioritizes the uses of a specific kind of rightsholder (such as communities, individuals, companies, or other legal entities) over others; and/or
- explicitly prioritizes specific kinds of uses (such as domestic uses) over others.

The methodology also considers whether any of the rights assessed are **transferable**—that is to say, whether communities can sell, lease, or otherwise alienate their water rights.

Notably, the scope of the **exclusion** indicator does not include actions that would supersede the human right to water. Many legal frameworks recognize the essential nature of water as a basic human need and as a human right. Within these frameworks, water is primarily viewed as a “public” resource, thus precluding the possibility of granting absolute rights to exclude others from accessing and using water. In keeping with these realities, the exclusion indicator reflects situations where the coupling of land and water rights enables communities to exclude at least some third parties from water resources appurtenant to their land, or where communities have the legal authority to exclude at least some third parties from specific water resources.

The methodology features four sub-indicators corresponding to fundamental aspects of community-based water **governance rights**:

- **rulemaking**, i.e., a community's right to collectively establish rules determining who can access/use water and water resources under the communities' control;
- **planning and management**, where “planning” pertains to a community's right to make collective decisions pertaining to the use(s) and protection of water resources, water allocation, and water infrastructure, and “management” pertains to a community's right to implement plans concerning water use, development, protection, allocation, and water infrastructure, in accordance with applicable community-based rules;
- **internal dispute resolution**, i.e., a community's right to utilize community-based mechanisms/rules to resolve water conflicts within the community; and
- **external enforcement**, i.e., a community's right to impose penalties on actors outside the community who violate community-based rules.

At a sub-indicator level, the study also tracks instances in which communities' governance and exclusion rights are subject to a procedural requirement imposed by national law, such as a permit or incorporation requirement.

Lastly, the methodology evaluates the legal guarantees that exist for communities' rights to **domestic due process and compensation** should a state or other actor revoke, infringe, or extinguish community water rights. The **domestic due process** sub-indicator addresses whether national law guarantees communities **prior notice** and **consultation** if decisions or proposed developments could impact their freshwater rights, as well as rights to **appeal** a government's decisions/actions to extinguish all or some of these rights. The **domestic compensation** sub-indicator evaluates whether communities are entitled to compensation from any government and private entities responsible for infringing upon or extinguishing their freshwater rights within a country's national borders.

## 2.5 Assessment Criteria for Legal Indicators and Sub-Indicators

The methodology uses an adaptive approach to assess each legal indicator or sub-indicator, whereby the same assessment categories ("partial credit," "no credit," etc.) are tailored to address the question posed by each indicator to the degree of specificity possible. Each indicator is subject to defined assessment criteria, whereby a "full credit" assessment corresponds to a set of statutory laws that, within the context of this assessment, adequately acknowledge and protect the right in question. **While a full-credit assessment indicates an adequate degree of statutory protection for community-based water rights, it does not imply that the assessed laws provide optimal legal protection.** Assessment categories corresponding with less robust legal protection are "partial credit," "no credit," or "case-by-case" (indicating that national law only recognizes the right in question for a portion of circumstances covered by the CWTR).

## 2.6 Caveats

This study, in line with all of RRI's tenure analyses, is subject to the following caveats:

- The study is limited to the content of written, government-issued laws and regulations and, where applicable, decisions of the highest national court; thus, neither this nor other RRI tenure analyses track or aggregate findings concerning the realization of Indigenous Peoples', Afro-descendants', and local communities' resource rights, or the realization of women's specific rights within those communities.
- The laws comprising CWTRs (or CBTRs, in other RRI tenure analyses) are passed by governments and, in many instances, do not reflect (and may run counter to) the actual customary laws, practices, priorities, or opinions found among the diverse array of Indigenous Peoples, Afro-descendants, and local communities. This report's focus on government-issued laws does not imply or endorse the notion that community-based rights emanate from the state or that the state possesses a legitimate authority to deny or revoke the customary, Indigenous, or community-based rights of Indigenous Peoples, Afro-descendants, local communities, or the individual men and women who are members of these same communities.
- This analysis does not purport to evaluate the relative strength of legal provisions captured by the same assessment criterion.
- While this analysis focuses on the status of government's national-level laws, it does not suggest or imply that legislative reforms are the sole solution to the multitude of challenges encountered by Indigenous Peoples, Afro-descendants, local communities, or women within these groups. Indeed, the effectiveness of legislative developments and implementation efforts depends on cross-sectoral coordination and collaboration, as well as the establishment of enabling social, economic, and political dynamics at the local, national, and oftentimes international level. Moreover, even successful legislative reforms may need to be reconsidered and further revised over time, as required to reflect the changing circumstances and desires of Indigenous Peoples, Afro-descendants, local communities, and both women and men community members with respect to their tenure rights.



## Chapter 3: A Statutory Approach to Community-Based Water Tenure

*This chapter provides an overview of the significance of the legal entitlements and threshold questions analyzed under this Methodology and explains why each legal right assessed is essential to the water tenure security of Indigenous Peoples, Afro-descendants, local communities, and women within those communities.*

---

A variety of community-based freshwater tenure rights interact to enable communities' survival, cultural vitality, and sustainable development. Communities **use** freshwater for many purposes (such as cultural, domestic, livelihood, or commercial), and may decide to **transfer** related entitlements to participate in water markets or engage in other business dealings. In order to protect the freshwater resources they rely on and promote sustainable freshwater use, communities often desire to **exclude** third parties from using or impacting their freshwater resources; **govern** freshwater through the creation, implementation, and enforcement of community-based rules/decisions; participate in **due process** procedures (prior notice, consultation, and appeals) to assert their rights against government and other parties; and receive **compensation** where their freshwater rights have been negatively impacted by third party actions. The legal recognition of these rights may or may not be rooted in the broader acknowledgement of communities' **customary rights to water** or natural resources, **the dependency of communities' recognized water rights on statutory land rights (termed the "land-water nexus")**, or the **human right to water**. Taken together, these rights constitute the central elements of community-based water tenure because they are foundational to supporting the kinds of relationships between communities and freshwater resources necessary for communities' subsistence, health, cultural vitality, secure livelihoods, sustainable resource governance, and economic advancement. As such, they are all central to communities' achievement of the SDGs, their right to self-determination, and their contributions to key global climate objectives. Gender-differentiated water use and management roles are pervasive and communities frequently rely on women's many valuable contributions to water management and stewardship. However, Indigenous, Afro-descendant, and local community women face persistent challenges in securing their resource tenure rights. Therefore, the legal recognition of **women's specific rights** to use and govern freshwater is vital for their wellbeing and advancement, as well as that of their larger communities.<sup>46</sup>

### 3.1 The Human Right to Water

The human right to water was recognized by the United Nations General Assembly in 2010 as entitling every person to "sufficient, safe, acceptable, physically accessible, and affordable water for personal and domestic uses" (i.e., drinking, cooking, personal sanitation and hygiene).<sup>47</sup> This General Assembly Resolution provides a basis for assessing water rights in terms of accessibility, availability, quality, affordability, and cultural acceptability.<sup>48</sup> The UN Committee on Economic, Social and Cultural Rights' General Comment 15 on the Right to Water establishes that the right should reflect the wider set of human rights that are dependent on water for their realization, including the rights to food, livelihoods and cultural practices.<sup>49</sup> Accordingly, states are encouraged to consider ways to ensure the provision of water for meeting basic human needs and the best mechanisms (e.g., legal instruments) for addressing other water-related human rights in ways that advance equity and non-discrimination in water resources allocation and management.<sup>50</sup> While it is clear that priority should be given to providing access to sufficient quality and quantities of water required for personal and domestic uses, the role of water in realizing additional human rights has led to ongoing debate regarding whether the right to water should be interpreted as requiring countries to progressively guarantee quantities of water sufficient to support livelihoods of vulnerable and marginalized people as a priority over other uses.<sup>51</sup>

The human right to water can provide an important foundation for Indigenous Peoples, Afro-descendants, local communities, and the women in those communities to assert their legal rights to a minimum quantity and quality of freshwater. When countries explicitly provide for the right to water in their constitution or legislation, they reaffirm their commitment to its realization. Such constitutional or legislative action has provided an impetus for prioritizing the use of water for basic human (domestic) needs. Legal mechanisms for achieving this prioritization include: exempting domestic water uses from procedural requirements, such as water use permits, that may impose costs or otherwise inhibit communities from obtaining water for those uses; explicitly prioritizing the use of freshwater by communities (and potentially other marginalized/vulnerable rightsholders) over that of other users; and prioritizing domestic (and sometimes livelihood) uses over other types of uses. Legally safeguarding water as a human right can also incentivize countries to take actions to protect the broader rights of Indigenous Peoples, Afro-descendants, and local

communities, including: (1) ensuring non-discrimination against the rights of Indigenous Peoples, Afro-descendants, local communities, and the women within these communities; and (2) legally acknowledging and supporting community-based rights to due process (prior notice, consultation, and appeal) that are necessary for communities to protect the freshwater resources they rely upon. Failure to include the right to water in national legislation, on the other hand, ultimately undermines communities' ability to challenge the state and other actors when their most essential rights to freshwater are violated.

### 3.2 CWTR-LEVEL THRESHOLD QUESTIONS

Analysis of each CWTR in this study is framed by three **CWTR-level threshold questions** that have wide-ranging impacts on the bundle of freshwater rights held by Indigenous Peoples, Afro-descendants, local communities, and women in those communities under national law. These questions assess:

1. whether communities' customary water rights, laws, traditions and/or practices are legally recognized;
2. whether communities' statutory water rights are dependent on their recognized rights to lands or forests; and
3. whether women's specific rights to use and/or govern waters to which their communities have rights are legally recognized.

#### 3.2.1 Customary Rights to Water

Customary water laws and practices are the primary means by which many Indigenous Peoples, Afro-descendants, and local communities determine how community members access, use, and govern the water they need for food, livelihoods, health, and wellbeing. Drawing moral authority from both contemporary and traditional norms, values, and institutions, customary law generally reflects the norms and practices accepted by a community as unifying and obligatory, as opposed to the authority of the state.<sup>52</sup> Customary laws tend to be flexible and adaptive in nature and may be passed down from generation to generation orally, rather than in writing.

When countries do not formally recognize the customary laws and rights of Indigenous Peoples, Afro-descendants, or local communities, customary rights are at risk of being ignored, manipulated, and eroded when competing claims for water arise. This is particularly the case where competing claims are made by powerful external actors that offer potential economic benefits for countries, such as hydropower development or large-scale land investments requiring significant water inputs.<sup>53</sup> Failure to protect customary water rights therefore has serious implications not only for communities' wellbeing, but also for sustainable resource management, as customary arrangements are often based on and responsive to localized knowledge systems that have evolved over time to meet shifting social and ecological conditions and priorities. Furthermore, recognizing customary law within statutory systems and aligning customary practices with human rights and non-discrimination standards can be important for achieving effective and equitable legal frameworks that protect against the systematic discrimination or exclusion of more vulnerable groups or minorities within communities, including women.<sup>54</sup>

Where customary rights are statutorily recognized as a source of enforceable law in a given country, these rights are often recognized in perpetuity.<sup>55</sup> However, national water laws often impose additional procedural requirements (such as the formation of user associations or procurement of a government-issued water use permit) on some or all customary rights in order to link them with statutory systems regulating water rights. These procedural obligations may run counter to the enduring, dynamic, and locally-grounded nature of customary norms and practices<sup>56</sup> by rigidly codifying or limiting the duration of communities' water use rights. Such laws frequently force communities to go through what are often complicated administrative processes in order to effectively assert and renew their lawful water rights.

#### 3.2.2 The Land-Water Nexus

Indigenous Peoples, Afro-descendants, and local communities tend to use and govern aquatic and terrestrial resources in an integrated manner, as their livelihoods and cultural practices are often intimately tied to the symbiotic relationships among land, forest, and freshwater resources.<sup>57</sup> Communities' harmonized approach to resource governance stands in stark contrast to the sectoral approach that characterizes many countries' land, forest, and water laws. Indeed, laws on water and land often overlap and even contradict each other.<sup>58</sup> While the recognition of water rights across land and forest laws can



provide more diverse legal avenues for communities to assert their water tenure, where laws fail to speak to each other, those rights can also be easily undermined or result in the imposition of cumbersome and duplicative requirements. The consequences of these legal realities are particularly pronounced for Indigenous Peoples, Afro-descendants, and local communities due to their direct dependence on natural resources. The literature demonstrates that natural resource laws are most effective at supporting communities' tenure security when they are tailored to community norms and everyday practices.<sup>59</sup> Thus, where communities' recognized water rights are dependent on land rights but harmonization across sectoral laws is lacking, communities may be forced to choose between competing legal obligations,<sup>60</sup> and may find the law to be an insufficient tool in protecting their water resource rights.

The land-water nexus takes many forms under national laws. It can derive from land, forest, and water laws, national constitutions, local government and administrative laws, and other legislation. In Kenya, for example, "land" is defined by the constitution to include "any body of water" on or under the surface of the land, and so legally recognized customary land rights include the water appurtenant to that land.<sup>61</sup> In Colombia, community-based rights to freshwater are recognized through decisions of the Constitutional Court that make communities' territorial rights, pursuant to ILO Convention No. 169 and the Constitution, enforceable under national law.<sup>62</sup> Finally, some communities' recognized water rights are entirely dependent on recognized forest rights (e.g., Scheduled Tribes and Other Traditional Forest Dwellers' Forestlands in India).<sup>63</sup>

Community-based water rights may also be legally recognized independently from land rights. For example, Indigenous Peoples, Afro-descendants, and local communities often attain statutory freshwater rights by forming WUAs that are legally authorized to use and govern freshwater for designated purposes. In Mali, Pastoralist communities have a priority right to access pastoral water points, regardless of their land or forest rights. This legislative arrangement is more conducive to protecting their pastoral lifestyle than would be possible under a land-water nexus.<sup>64</sup>

Given Indigenous Peoples', Afro-descendants', and local communities' ongoing struggles to safeguard and gain recognized rights to the *territories* they have stewarded, managed, and depended on for generations,<sup>65</sup> a nuanced understanding of the relationships between their statutory rights to both freshwater and terrestrial resources is necessary to identify the most effective legal options available to communities to ensure that their freshwater rights are recognized and protected.

### **3.2.3 Women's Rights to Community Waters**

Women have important water management responsibilities, unique water needs, and differentiated priorities for water allocation and use. The recognition of women's specific rights to use and govern community freshwater resources is essential for ensuring that women have a meaningful voice in decision-making so they can benefit from the overarching recognition of community-based freshwater tenure and substantively contribute to both their own prosperity and that of their families and communities. Women play critical yet often undervalued roles in water use, allocation, and management within their communities. They have differentiated knowledge about water accessibility, quality, and usage patterns that is vital for sustainable resource management, health, and food security. They also have differing responsibilities, priorities, and needs for both domestic and productive uses of water, as well as for sanitation and hygiene.<sup>66</sup> For example, rural women and girls have the main burden of unpaid household work, including water collection, and are responsible for collecting water for their families in 8 out of 10 households worldwide.<sup>67</sup> Moreover, satisfying the WASH needs of women and children is critical to positive reproductive health outcomes, the reduction of child mortality, and for increasing opportunities for girls and young women to obtain a formal education.<sup>68</sup>

Despite the fact that the international community has recognized the critical role of women in water management and decision-making for over 30 years and evidence that the effectiveness of water sector interventions in rural settings is strongly associated with women's participation,<sup>69</sup> there continues to be a clear gap between policy commitments and practice. Men continue to dominate water-related decision-making at all levels.<sup>70</sup> These gender inequities extend to the internal decision-making processes of many Indigenous, Afro-descendant, and local communities, as well as those in which communities engage with external investors and government representatives.<sup>71</sup> In large part, this reality reflects the persistent, patriarchal gender ideology that prevails in many countries, and the cultural norms of some Indigenous, Afro-descendant, and local communities that view the qualities for community leadership and decision-

making to be traditionally “male” characteristics.<sup>72</sup> These discriminatory norms are reinforced by the lack of gender sensitive laws recognizing and affirming women’s rights to participate in local-level resource governance.

Countries’ abilities to support women in exercising control over community water resources depend largely on the extent to which national laws recognize women’s rights to participate in community-level governance through community-wide decision-making forums, executive and other leadership bodies, and dispute resolution processes. In the absence of legal protections that ensure equitable rights for women within Indigenous, Afro-descendant, and local communities, these women are often unable to ensure that water is appropriately allocated for their priority domestic and productive purposes, to engage in community-level enterprises involving water, and to meaningfully shape the future of their communities’ development by participating in decision-making processes as equal members.

### 3.3 Legal Indicators

#### 3.3.1 Use Rights

##### 3.3.1.1 The Significance of Water Use Rights for Cultural and Religious, Domestic, Livelihood, and Commercial Purposes

Indigenous Peoples, Afro-descendants, and local communities use water to fulfill a wide range of cultural and religious, domestic, livelihood, and commercial purposes, and the security of these rights is directly linked to communities’ food security, health, and poverty levels. Secure community rights to use water for **cultural and religious purposes** can best position communities to steward the fragile freshwater systems that form an integral part of their territories, while preserving communities’ cultural identities and belief systems, historical ties to territory, and deep cultural knowledge.<sup>73</sup> **Domestic water uses** are those necessary for human survival and are thus directly linked to the realization of the human right to water. Water use for **livelihood purposes** includes small-scale/household-level productive uses that fulfill purposes beyond domestic needs, such as food production, watering livestock, and other small-scale income generating activities. Such uses bolster the productive wellbeing of both communities and their individual members. Lastly, water is an important asset for commercial activities and enterprises, such as timber or agricultural production, that directly support community development and wellbeing. Thus, recognition of their rights to use freshwater for **commercial purposes** can enable communities to pursue their own economic models of sustainable development using locally adapted approaches that maintain the functional capacities of the landscapes upon which they depend.

##### 3.3.1.2 Common Trends across Legal Frameworks: Water Use Permits, Exemptions, and Prioritization

Most countries rely on water permitting systems as the primary legal tool for regulating water abstraction and use across a variety of rightsholders. Permits may impose restrictions based on water use purposes, the season of a desired use, the manner of abstraction, and the water source being regulated, among other factors. Permitting systems, while providing important benefits for monitoring, financing, and regulating water uses, can also place high administrative, and often financial, burdens on communities and other vulnerable water users when requiring permits for livelihood uses and commercial uses of water.<sup>74</sup> Government offices administering permits are often far from communities and online applications are not commonly available, thus requiring communities to physically travel long distances (sometimes multiple times) in order to apply for permits. Permitting systems also commonly impose time restrictions on water uses without distinguishing between types of water users, thus requiring communities to fulfill onerous procedures repeatedly in order to maintain their water use permits and continue using water legally. Permitting processes may be particularly intimidating if community members lack the necessary literacy and education levels to easily understand and fulfill the requirements, or if they are subject to discrimination from government officials or other ethnic groups that may dominate administrative processes. While communities who can afford it may be able to seek outside assistance to secure their water rights such processes still take time away from other essential tasks upon which their wellbeing and livelihoods depend. In practice, due to limited government capacity to notify communities of their permit obligations and administer these often-complex systems, the needs and capacities of small-scale users in rural areas are frequently overlooked by governments.<sup>75</sup> This can leave communities effectively outside the

legal system<sup>76</sup> and vulnerable to both state and private party infringements on their freshwater rights—further threatening their ability to rise above the poverty line and maintain their health.

Moreover, some countries add to communities' administrative burdens by requiring them to incorporate as legal entities in order to secure their freshwater rights. For all of these reasons, administrative requirements can tax communities' resources and limit their ability to allocate and otherwise manage their water resources to satisfy the domestic, livelihoods, and commercial water needs that contribute to poverty alleviation and economic advancement.<sup>77</sup> Commercial water use rights are especially likely to be regulated through permitting systems.<sup>78</sup>

In recognition of the essential nature of water, some national laws facilitate access to water for basic human needs by exempting certain water users or specific water uses (commonly domestic uses) from otherwise applicable permit requirements, although the scope of such exemptions is highly variable across countries. In order to resolve conflicts over water allocation among water users and across sectors, ensure equity in allocation, and provide guidance on water reallocation during times of scarcity, water laws may also prioritize water uses that satisfy basic human needs or contribute to food security, or prioritize the rights of particularly vulnerable groups (which may include Indigenous Peoples, Afro-descendant, and other local communities) over those of other rightsholders. Under Colombian national law, for example, Indigenous, Afro-descendant, and local communities' water uses are legally prioritized over individual water uses, and water use by all territorial inhabitants is prioritized over use by external actors.<sup>79</sup>

### **3.3.1.3 Differences in Legislative Definitions across Water Use-Types**

While this assessment broadly identifies the four legally recognized use-types described in this section and defined in Chapter 2, national laws differ in how they define and regulate categories of water use, with some blurring distinctions across the four use types analyzed here. For example, Cambodian law combines domestic and certain livelihood uses by establishing that all citizens have the right, without a permit, to “use water resources in an amount not exceeding the basic need for drinking, washing, bathing and other purposes including the feeding of domestic animals and buffaloes, fishing and irrigation of gardens and orchards, while avoiding impacts on other people.”<sup>80</sup> In Peru, domestic or “primary use” of water explicitly includes use for cultural and religious purposes. Other countries such as Kenya and Zambia do not isolate a category of “livelihood uses,” opting instead to either explicitly or (in Kenya's case, implicitly) recognize and exempt all domestic and non-commercial water uses.<sup>81</sup>

### **3.3.2 Transferability**

Transferability is defined herein as a community's right to sell, lease, or otherwise transfer any of their freshwater rights to other entities. In fact, the notion that any part of a community's territory could be alienated inherently conflicts with many Indigenous Peoples', Afro-descendants', and local communities' understanding of their territory as a fundamental facet of themselves that cannot be divided and transferred by any individual or group of individuals within the community<sup>82</sup>—a holding also supported by common-pool resource theory.<sup>83</sup> Protecting community lands against transferability can have long-term advantages that can help communities preserve their land and resource rights for future generations. Enabling the alienation of water tenure rights can consequently disrupt collectively managed water systems and even trigger the dispossession of community rights to water or other resources.<sup>84</sup>

Nevertheless, the ability to transfer water rights may serve as a critical foundation for communities' capacity to participate in water markets or otherwise pursue community-led enterprises. Indigenous Peoples, Afro-descendants, and local communities—and particularly women in those communities—are often at a disadvantage in having access to the capital and bargaining power necessary to take advantage of such markets.<sup>85</sup> Thus, transferability can be both a benefit and a risk for many communities.

### **3.3.3 Exclusion**

The right to exclusion ensures that communities have the legal authority to protect their water rights and territorial water resources from capture or abuse by third parties. Infrastructure development (including large dams), mining, and large-scale commercial agricultural schemes, among other developments, pose significant threats to water resources around the world.<sup>86</sup> As competing demands for and impacts on water grow, communities with the legal right to prevent third parties from polluting or otherwise

compromising the water resources on which they depend must be better positioned to identify these threats and prevent negative impacts. Community-based decisions concerning which third parties to exclude from their freshwater resources can effectively empower communities to protect and conserve their water resources, and even exert veto rights over alternatives uses.<sup>87</sup>

As previously stated, water is a “fugitive” and shared resource necessarily subject to overlapping claims, and water tenure regimes often reflect a balance of public and private property rights. Consequently, legally recognized rights to exclude third parties from water resources differ from rights to exclude third parties from land in several key respects. For example, **exclusion rights are generally limited to third parties who seek to use freshwater for a purpose other than the fulfillment of basic human needs, which are generally safeguarded as a domestic and/or human right**, even where a water resource is located on private land. Furthermore, exclusion rights may be limited to private parties, as governments typically establish legal rights to control or even own all freshwater to administer on behalf of citizens, including communities. For example, in Mexico and Colombia, the constitutional public trust doctrine articulates that water resources are vested in the state to be held in trust for their citizens, thus precluding the ability of specific communities to exclude government officials from their waters.<sup>88</sup>

### 3.3.4 Governance

Water governance refers to the ways in which Indigenous Peoples, Afro-descendants, and local communities make and enforce rules about how to allocate, manage, use, develop, and protect their water resources. The legal protection and realization of community-based water governance rights determines whether communities and their members—including both men and women—have a voice in making decisions concerning the allocation and utilization of freshwater resources and how benefits from these resources are distributed to and within a community. Communities’ governance systems adopt various approaches to planning, decision-making, and conflict resolution, with some reflecting a centralized approach in which authority is concentrated in traditional leaders, and others distributing power democratically or through consensus-oriented approaches. Importantly, community-created governance institutions are generally structured to meet their specific needs and realities, enabling them to function more effectively within local contexts and be responsive to community priorities.<sup>89</sup>

Decentralization reforms have played a prominent role in government efforts to empower and improve engagement among water users in water governance at multiple levels (e.g., Nepal<sup>90</sup> and Zambia<sup>91</sup>). This has resulted in a number of legal approaches to including communities and community-based institutions in decision-making processes and co-management of local-, basin-, or catchment-level water resources. The recognition of communities’ customary rights to govern either freshwater specifically or as part of their broader territories is another mechanism that can enable existing community institutions to function within formal legislative systems.

Where legal reform processes effectively engage communities and leverage their governance structures, results tend to be more effective and sustainably implemented.<sup>92</sup> In contrast, imposed governance systems and institutions that fail to account for existing community governance practices can prove disruptive and spark conflict,<sup>93</sup> although in some instances, they can also help rebalance existing power inequities.<sup>94</sup> The sustainable implementation of community-level freshwater governance is also complicated when dual, statutorily mandated governance frameworks for aquatic and terrestrial resources are not harmonized or compatible with the integrated resource governance needs of Indigenous Peoples, Afro-descendants, local communities, and women in those communities.<sup>95</sup>

#### 3.3.4.1 Rulemaking, Planning, and Management

This study analyzes communities’ legally recognized rights to establish rules determining who can access and use water under their control; plan for the use, protection, and development of water resources and how those resources are allocated; and manage water through the implementation of those plans. These aspects of governance draw on and reflect communities’ longstanding and intimate knowledge of their water resources, which, in many instances, have evolved to support practices that maintain sustainable freshwater flows and use. The recognition of rulemaking, planning, and management rights thus enables them to use this knowledge to allocate, protect, and develop water resources in ways that are culturally and socially appropriate.

### 3.3.4.2 Internal Dispute Resolution and External Enforcement

Most Indigenous Peoples, Afro-descendants, and local communities have developed community-level dispute resolution practices and institutions that are separate from statutory systems. These community-level mechanisms are often governed by customary laws and authorities in accordance with community norms and procedures. While dispute resolution mechanisms recognized under national laws—including legislatively created courts, tribunals, and administrative bodies—can play an important role in communities' ability to resolve disputes over water, community-level dispute resolution mechanisms are often more accessible, less costly, and more responsive to community needs and resource availability. Women, in particular, may find the time, distance, and cost of formal dispute resolution mechanisms particularly prohibitive. On the other hand, community-level adjudicatory forums often are presided over by male leaders, and gender-biased decisions present a common challenge.<sup>96</sup>

As with other governance rights, some laws recognize existing community-based water dispute resolution mechanisms that are responsible for handling a broader set of internal conflicts regarding community lands or territories (e.g., Tierras de las Comunidades Negras and Territorios Indígenas y Resguardos in Colombia, Scheduled Tribes and other Traditional Forest Dwellers' Forestland in India, and Les pasteurs and Les terres agricoles des communautés rurales in Mali). Alternatively, national laws may recognize dispute resolution authority pursuant to the creation of a legislatively created community-based water institution (e.g., Water User Associations in Kenya).

While dispute resolution rights encompass communities' rights to resolve conflicts among community members in keeping with internal rules and norms, external enforcement rights allow communities to stop and potentially exact penalties from third parties that may transgress legally recognized community rights, including community established rules. Legally recognized freshwater governance rights to rulemaking, planning, and management lose much of their value without an accompanying right to enforce those rules and decisions when violated by third parties. Where communities lack secure external enforcement rights, they must either rely on recognized rights to exclude third parties from water resources (discussed above), or on recourse through due process rights of prior notice, consultation and appeal (discussed in further detail below). While communities wait on government enforcement actions or for court proceedings to move forward, they often continue to suffer the consequences of ongoing pollution or diversion/abstraction of their water resources. Given the prevalence and high stakes of community water conflicts with outside actors,<sup>97</sup> communities' ability to enforce their water rules against third parties can dictate the future of the freshwater resources upon which communities depend.

### 3.3.5 Due Process (Prior Notice, Consultation, and Appeal) and Compensation

In addition to the substantive rights described so far, Indigenous Peoples, Afro-descendants, and local communities also rely on procedural rights to ensure that they are able to respond effectively when activities (or proposed activities) by third parties threaten their water rights. Due process rights include legal requirements for communities to be given advance notice of proposed policies, plans, and activities, and any potential associated impacts or threats, as well as the right to be consulted or directly involved in decision-making processes in ways that enable them to protect their water rights. In the event that communities' due process rights of prior notice and consultation are inadequately recognized or realized, they also must have the ability to appeal to a higher authority—a court or sometimes an administrative body—to enforce their rights.

All three of these due process rights (prior notice, consultation, and appeal) are particularly critical where communities lack exclusion or enforcement rights against external parties. The right of appeal can enable communities to uphold their water rights through judicial and administrative procedures not otherwise available to them. Finally, where communities' water rights are actually encroached upon or violated, they must be able to secure equitable compensation for the damages incurred. Compensation rights provide for monetary or other forms of restitution where the state has infringed upon communities' water rights (or expropriated land with appurtenant water rights, in cases where a land-water nexus is present), as well as in situations where private third parties have encroached upon those water rights or illegally harmed the resource.

Because water flows through many countries and territories, due process requirements may be triggered by water disputes or developments taking place either within a country's borders, or by proposed

developments in another state that impacts transboundary freshwater resources. Even where freshwater tenure is secure under domestic law, the absence of secure transboundary due process rights renders communities without legal means to protect their freshwater rights when water-related developments have impacts across borders.

A wide variety of legal provisions—including national constitutions, environmental protection laws, land laws, and other sectoral domestic laws—may simultaneously shape the due process rights of Indigenous Peoples, Afro-descendants, local communities, and the women in those communities regarding freshwater resources. International treaties, regional basin-level agreements, and international court decisions may also be instrumental in transboundary contexts. In both contexts, a common mechanism for guaranteeing communities' due process rights is a social and/or environmental impact assessment (S/EIA). Impact assessment provisions frequently contain requirements to notify relevant stakeholders (which may specify Indigenous Peoples or local communities) and provide them with an opportunity to comment and sometimes participate in decision-making processes when a proposed project or development has the potential to impact water resources in a way that could infringe communities' rights.<sup>98</sup>

To address power differentials between Indigenous, Afro-descendant, and local communities, as well as historically marginalized community members, and external actors,<sup>99</sup> UNDRIP goes further than simply requiring consultation to recommend FPIC from communities prior to decisions or activities that could impact their resources, and that just and fair compensation should be available to communities where resources they traditionally owned, occupied, or used are taken or damaged without consultation and/or consent.<sup>100</sup> FPIC standards have been incorporated into some national laws with respect to decisions that could negatively impact their land and water resources (e.g., Colombia<sup>101</sup> and Peru<sup>102</sup>), and acknowledged by international human rights bodies as applicable to situations in which third parties negatively impact minority or Indigenous communities' water resources.<sup>103</sup> Despite this progress, most countries still have yet to incorporate FPIC rights into national legislation, leaving communities to rely on standards of international law to enforce their full set of due process rights.<sup>104</sup>

### 3.3.5.1 Transboundary Due Process

Worldwide, there are approximately 310 transboundary freshwater basins (basins shared by two or more countries) that are home to over 40 percent of the world's population, and these watercourses support the lives and livelihoods of many Indigenous Peoples, Afro-descendants, and local communities globally.<sup>105</sup> The shared nature of these freshwater resources complicates the recognition and realization of communities' due process rights. International water law recognizes states' duties to avoid using watercourses in their territories in such a way as to cause significant harm to other watercourse states,<sup>106</sup> and the International Court of Justice (ICJ) has ruled that transboundary environmental impact assessments (TEIAs) are a "requirement under general international law" for any proposed activity that could have a significant adverse impact in a transboundary context.<sup>107</sup> However, the content of such impact assessments is largely left to states' determination. Thus, in the absence of an applicable international agreement enabling impacted communities from any signatory country within a basin to assert due process rights in response to actions by other signatory countries,<sup>108</sup> transboundary due process rights oftentimes depend on the laws of the state whose actions (or inaction) are negatively impacting a transboundary watercourse. For example, the government of one country may be dependent on receiving information regarding proposed or ongoing activities from the transgressing country in order to provide effective prior notice to an impacted community within its borders. What constitutes effective notice is also open to the interpretation of various national standards, as there is no standard legal definition. Moreover, the scope of consultation processes that should include impacted downstream communities in one state may be heavily influenced by the legal standards for assessing water-related risks imposed by an upstream country whose actions or inactions are generating the risk at issue.<sup>109</sup>

## Chapter 4: Global and Regional Findings

### 4.1 Summary of Global Results

This report finds that 14 of the 15 countries examined legally recognize at least some community-based rights to use and govern freshwater, providing a foundation to analyze the nature and strength of those rights. Table 3 presents data on the performance of all 39 CWTRs analyzed, including the presence of procedural and/or administrative requirements that may hinder communities' ability to realize water tenure security. The discussion that follows distills global and regional findings with respect to each national- and CWTR-level threshold question, as well as each of the five legal indicators and associated sub-indicators assessed at the CWTR level.

**Table 3 Findings by Region**

			National-Level		CWTR-Level			Use						Governance				Domestic Due Process and Compensation		
			Human Right to Water	Transboundary Due Process	Customary Water Rights	Land-Water Nexus	Women's Rights to Community Waters	Customary/Religious Use	Domestic Use	Livelihood Use	Commercial Use	Transferability	Exclusion	Rulemaking	Planning and Management	Internal Dispute Resolution	External Enforcement	Due Process	Compensation	
	Country	CWTR	Threshold Questions			CWTR-Level Legal Indicators														
Africa	Kenya <sup>a</sup>	Registered Community Lands	✓	✗	✓	✓	✓	✓	✓	✓	■	✓	✓	✓	✓	✓	✗	✓	✓	
		Unregistered Community Lands			✓	✓	✗	✓	✓	✓	■	✗	✓	✓	✓	✓	✗	✓	✓	
		Water Resource Users' Associations Outside of Community Lands			✓	✗	✗	✓	✓	■	■	✓	C	✓	✓	✓	C	✓	✓	
	Liberia	Authorized Community Forests	✗	✗	✓	✓	✓	■	■	■	■	✓	✓	✓	✓	✓	✓	✓	✓	✓
		Customary Lands Outside of Authorized Community Forests			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✗	✓	✓			
	Mali <sup>b</sup>	Les terres agricoles des communautés rurales (Rural Communities' Agricultural Lands)	✓	✗	✓	✓	✗	✓	✓	✓	✓	✓	✓	✓	✓	✓	✗	✓	✓	
		Les pasteurs (Pastoralists)			✓	✗	✗	✓	✓	✓	✓	✗	✓	✓	✓	✓	✗	✓	✓	
	Morocco <sup>c</sup>	No CWTR	✗	✗																
	Zambia <sup>d</sup>	Community Forest Management Groups	✓	✓	✓	✓	✓	✓	✓	✓	■	✓	✓	✓	✓	✓	✓	✓	✓	■
		Customary Landholders outside of CFMGs			✓	✓	✓	✓	✓	✓	■	✓	✓	✓	✓	✗	✓	■		
Water Users' Associations on Leased Lands		✗			✗	✓	C	✓	✓	■	✓	✗	✗	✓	✓	✗	✓	■		
Asia	Cambodia <sup>e</sup>	Community Protected Areas	✗	✗	✓	✓	✗	■	■	■	✗	✗	✗	✓	✓	✓	✓	✓	✓	✓
		Community Forests			✓	✓	✗	✓	✓	✓	■	✓	✓	✓	✓	✗	✓	✓		
		Indigenous Communities			✓	✓	✗	✓	✓	✓	■	✓	✓	✓	✓	✗	✓	✓		
	India <sup>f</sup>	Scheduled Tribes and Other Traditional Forest Dwellers' Forestland	✓	✗	✓	✓	✓	✓	✓	✓	✓	✗	✓	✓	✓	✓	✗	✓	✓	
		Scheduled Tribes Outside Forestland			✓	✓	✓	✓	✓	✓	✓	✗	✗	✓	✓	✓	✗	✓	✓	
	Nepal <sup>g</sup>	Irrigation Users' Associations	✗	✗	✗	✓	✓	✓	✓	✓	✓	✗	✓	✓	✓	✓	✓	✗	✓	■
		Water Consumers' Associations			✗	✗	✗	✓	✓	✓	■	✓	C	✓	✓	✗	✗	✓	■	
		Drinking Water Users' Associations			✗	✗	✓	✓	✓	✓	✓	✓	C	✓	✓	✗	✗	✓	■	
Vietnam <sup>h</sup>	Community Grassroots Irrigation Organizations (GIOs)	✗	✗	✗	✗	✗	✓	✓	✓	■	✓	✗	✓	✓	✓	✗	✓	■		

Key: ✓ = Full Credit   ✗ = Partial Credit   ✗ = No Credit   C = Case-by-Case

■ = Recognition of this Use, Governance, or Exclusion right is contingent upon meeting a procedural and/or other administrative requirement



		National-Level		CWTR-Level			Use						Governance				Domestic Due Process and Compensation			
		Human Right to Water	Transboundary Due Process	Customary Water Rights	Land-Water Nexus	Women's Rights to Community Waters	Customary/Religious Use	Domestic Use	Livelihood Use	Commercial Use	Transferability	Exclusion	Rulemaking	Planning and Management	Internal Dispute Resolution	External Enforcement	Due Process	Compensation		
Country	CWTR	Threshold Questions				CWTR-Level Legal Indicators														
Latin America	Bolivia <sup>l</sup>	✓		✗	✓	✓	✗	✓	✓	✓	✓	✗	✓	✓	✓	✓	✓	✓	✓	
					✓	✓	✗	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
					✓	✓	✗	✓	✓	✓	✓	✗	✓	✓	✓	✓	✓	✓	✓	✓
					✓	✗	✗	✓	✓	■	■	✗	✗	✓	✓	✗	✗	✓	✓	
	Chile <sup>l</sup>	✗		✗	✓	✗	✗	✓	✓	✓	✓	✓	✓	✓	✓	✓	✗	✓	✓	
	Colombia <sup>k</sup>	✓	✗	✓	✓	✓	✓	✓	■	■	✓	✓	✓	✓	✓	✓	✗	✓	■	
				✓	✓	✗	✓	✓	■	■	✓	✓	✓	✓	✓	✗	✓	■		
				✓	✗	✗	✓	✓	■	■	✓	✓	✓	✓	C	✗	✓	■		
	Mexico <sup>l</sup>	✓	✗	✓	✓	✗	✓	✓	✓	■	✓	✓	✓	✓	✓	✓	✗	✓	■	
				✓	✓	✓	✓	✓	■	✓	C	✓	✓	✓	✓	✗	✓	■		
				✓	✓	✓	✓	✓	■	✓	C	✓	✓	✓	✓	✗	✓	■		
	Panama <sup>m</sup>	✓	✓	✓	✓	C	✓	✓	✓	✓	✗	✓	✓	✓	✓	✓	✓	✓	✓	
				✗	✓	✗	✓	✓	✓	✓	C	✓	✓	✓	✗	✗	✓	✓		
				✓	✓	✗	✓	✓	✓	✓	✗	✓	✓	✓	✗	✗	✓	✓		
				✓	✓	✗	✓	✓	✓	✓	✗	✗	✓	✓	✗	✗	✓	✓		
				✗	✗	✗	✓	✓	✓	✓	✗	✗	✓	✓	✗	✗	✓	✗		
	Peru <sup>n</sup>	✓	✗	✓	✗	✗	✓	✓	✗	✗	✗	✓	✓	✓	✓	✓	✗	✓	✓	
				✓	✗	✗	✓	✓	✓	✓	✗	C	✓	✓	✓	✓	✗	✓	✓	
				✓	✗	✗	✓	✓	✓	✓	✗	C	✓	✓	✓	✓	✗	✓	✓	
				✓	✗	✗	✓	✓	✓	✓	✗	C	✓	✓	✓	✓	✗	✓	✓	



## 4.2 National Recognition of the Human Right to Water

### The human right to water is legally recognized in 9 of the 15 countries analyzed.

Five of 6 Latin American countries (Bolivia, Colombia, Mexico, Panama, and Peru), 3 of 5 African countries (Kenya, Mali, and Zambia), and only 1 of 4 Asian countries (India) analyzed legally recognize the human right to water. These countries acknowledge the human right to water in a variety of ways, including through provisions in national constitutions (as in Bolivia, Mali, Mexico, and Peru), specific provisions in constitutional bills of rights (as in Kenya and Zambia<sup>110</sup>), Constitutional Court decisions (as in Colombia<sup>111</sup>), and Supreme Court decisions (as in India<sup>112</sup> and Panama). Where the right to water is recognized by courts, decisions vary with respect to the source of the right, with some anchoring the right in international law and others in constitutional provisions. Panama's Supreme Court recently ruled that the human right to water was legally binding based on constitutional provisions recognizing the State's duty to comply with international law and to recognize other fundamental rights not explicitly included in the constitution, including the international human right to water.<sup>113</sup> The Indian Supreme Court recognized the right to water as a necessary component of other, already *constitutionally* guaranteed human rights, although the human right to water is not actually protected by the country's constitution or national legislation.<sup>114</sup> Colombia's Constitutional Court has declared the existence of a fundamental human right to water, both in itself, and as a prerequisite for other human rights protected by international treaties and the Colombian Constitution, including rights to life, health, a safe environment, and adequate food and housing.<sup>115</sup>

Among the countries that recognize the human right to water in their constitutions (Bolivia, Kenya, Mali, Mexico, Peru, and Zambia) the fundamental or human right to water is referenced in a variety of ways.<sup>116</sup> Mexico's Constitution specifies that the right is to "access, disposal and sanitation of water for personal and domestic consumption in a sufficient, healthy, acceptable and affordable manner."<sup>117</sup> It further requires the State to guarantee the right in an "accessible, equal and sustainable" manner.<sup>118</sup> Kenya's Constitution recognizes the right to "clean and safe" water and further requires that the State "take legislative, policy and other measures, including the setting of standards, to achieve the progressive realization" of the right.<sup>119</sup> Mali's Constitution is notable as it does not explicitly recognize the human right to water, but instead grants most treaties that have been ratified the status of national law and therefore incorporates the right to water as enshrined in the Water Charter of the Niger Basin of 2008.<sup>120</sup> Bolivia's constitution is also noteworthy for its explicit acknowledgement of the human right to both water and sanitation, stating that, "Access to water and sewer systems are human rights, neither of which may be the object of concession or privatization..."<sup>121</sup>

## 4.3 Customary Right to Water

### Communities' customary water rights are broadly recognized across the 39 CWTRs in this analysis, accounting for more than 80% (32) of reviewed legal frameworks.

The legal recognition of customary water rights often plays an important role in defining and securing CWTRs. Such recognition can extend to a variety of water entitlements and further legitimizes the customary institutions that govern many communities' access, use, and governance of natural resources more broadly.

Customary rights are generally recognized in perpetuity (reflecting the enduring nature of customary water rights under many community norms), but such recognition does not prevent other legal provisions from limiting the duration of community rights to use water for various purposes. Indeed, 2 (6 percent) of the 32 CWTRs that recognize customary water rights are established through 15-year renegotiable community forest management agreements (Authorized Community Forests in Liberia and Community Protect Areas in Cambodia) that in turn limit the duration of communities' rights to use water. An additional 5 CWTRs recognizing communities' customary rights limit the duration of their livelihood use rights through the imposition of a permit requirement. Most notably, half of the 30 CWTRs that recognize both communities' customary rights and their rights to use water commercially subject commercial water use to time restrictions, mostly through mandatory permit requirements.

The communities whose customary water rights are recognized may also vary within and between countries. Panama, for instance, recognizes the customary water rights of Indigenous Peoples, but not those of other communities with collective land titles or organized in WUAs. In Zambia, the legal recognition of communities' customary freshwater rights are tied to their customary land and forest

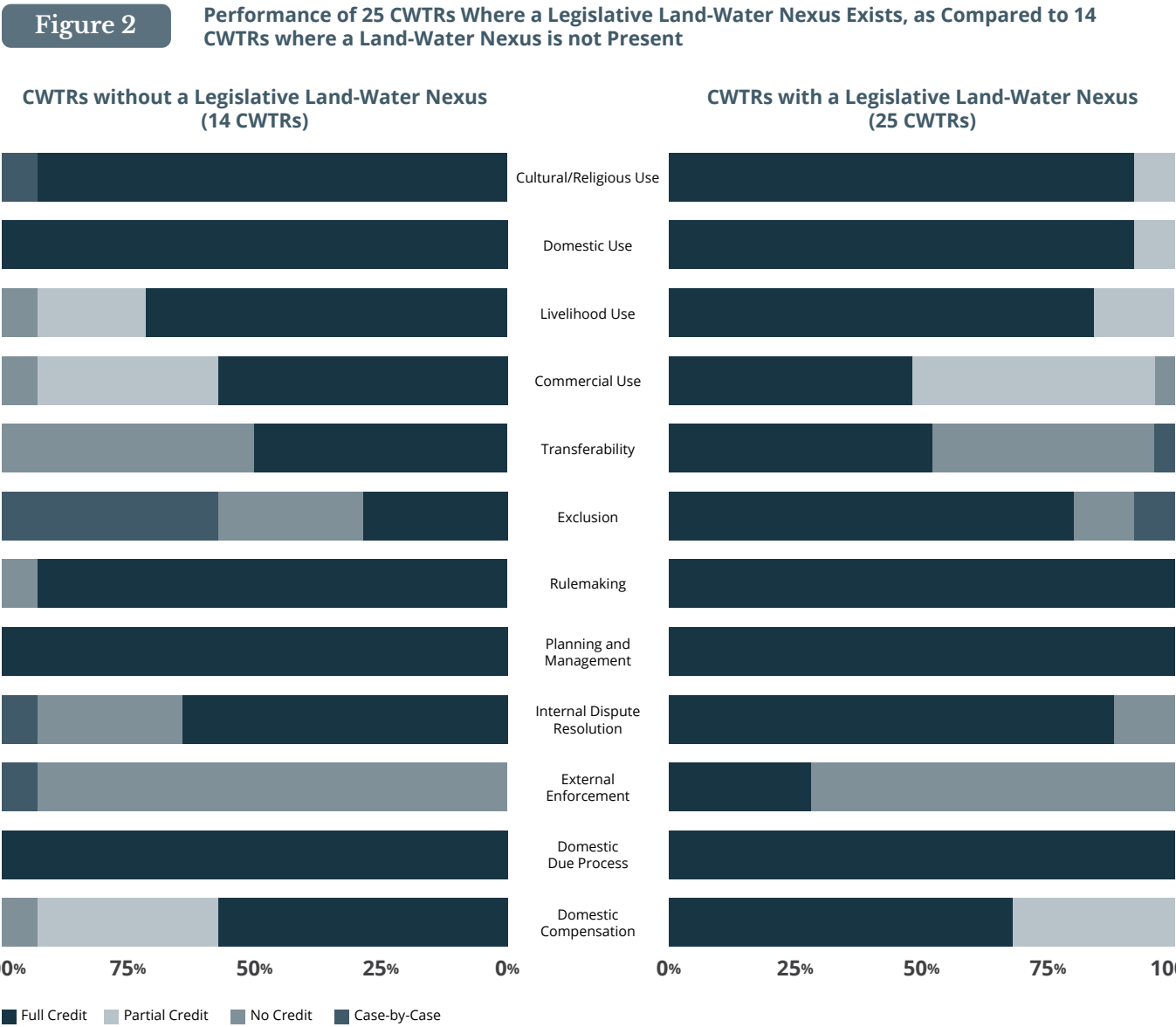
rights but are not recognized in situations where a community forms a water user association to access freshwater rights outside of lands or forests to which they have recognized rights. Morocco,<sup>122</sup> Nepal, and Vietnam do not statutorily recognize the customary water rights of any communities.

Finally, evidence suggests that the absence of customary freshwater rights does not preclude legal acknowledgment of cultural water use rights, and that perpetual use rights can exist without broad customary recognition. All 7 CWTRs that fail to acknowledge communities' customary water rights recognize their domestic and livelihood use rights in perpetuity, and 6 (94 percent) of the same 7 CWTRs recognize communities' right to use water for cultural or religious purposes indefinitely.<sup>123</sup>

4.4 Land-Water Nexus

**Communities' legal rights to freshwater are dependent on their recognized land or forest rights in 25 of the 39 legal frameworks analyzed<sup>124</sup> and these frameworks establish consistently stronger recognition of community-based freshwater rights.**

The national laws of 11 out of 15 countries establish one or more CWTRs that firmly anchor communities' freshwater rights to their legally recognized land or forest rights. This is significant because a legislative



“land-water nexus” can provide a crucial legal foundation for community-based freshwater rights, particularly when countries’ water laws fail to consider or protect the specific rights and needs of Indigenous Peoples, Afro-descendants, and local communities.

Findings demonstrate that the overall performance of CWTRs with a land-water nexus tends to surpass that of CWTRs without a nexus. Specifically, a greater percentage of CWTRs with a land-water nexus adequately recognize community-based freshwater rights of use for livelihood purposes, transferability, exclusion, rulemaking, internal dispute resolution, external enforcement, and domestic compensation when compared to CWTRs that recognize community freshwater rights independently from land rights (see Figure 2).

All 7 of the CWTRs in this analysis that adequately recognize community rights to enforce their freshwater rules against third parties are characterized by a land-water nexus,<sup>125</sup> and 20 (80 percent) of the 25 CWTRs with a land-water nexus recognize communities’ exclusion rights—compared to only 4 (29 percent) of the 14 CWTRs without a nexus.

**Importantly, recognition of customary water rights and of women’s rights to use and govern community water resources most often exists when communities’ water rights are premised upon their land rights.** Twenty-three (92 percent) of the 25 CWTRs with a land-water nexus recognize customary freshwater rights, compared to 9 (64 percent) of the 14 CWTRs without a nexus. The 25 CWTRs with a nexus were also more than three times as likely to recognize women’s rights to use and/or govern freshwater (11 of 25 CWTRs, or 44 percent) than the 14 CWTRs without a nexus (2 of 14 CWTRs, or 14 percent). This is reflective of the fact that legislative provisions ensuring women’s rights to participate in community-level governance often pertain to community-level assemblies or executive committees that are broadly charged with making decisions about community lands, territories, forests, or natural resources, which include (but are not specific to) decisions related to freshwater.

#### 4.5 Indigenous, Afro-descendant, and Community Women’s Rights to Water

**Laws regulating community-based freshwater rights are typically gender-blind, with just one-third of legal frameworks protecting women’s rights to use or govern community freshwater resources.**

Indigenous, Afro-descendant, and community women often have gender-differentiated needs, knowledge, and priorities with respect to the use and governance of freshwater, all of which have direct bearing on their food security, health, and wellbeing, as well as that of their families and community. Given the many specific challenges facing women’s water tenure security, the gender-sensitive protection of Indigenous, Afro-descendant, and community women’s rights to use and govern water is an essential element of legal frameworks acknowledging community-based freshwater rights.

Yet, of this study’s three CWTR-level threshold questions, the specific rights of women to use and/or govern community waters received the least recognition under national law, with only 13 (33 percent) of the 39 CWTRs analyzed acknowledging either of these rights for women community members (see Figure 3). These 13 CWTRs include all CWTRs in India, Liberia, Mexico, and Zambia, as well as a portion of CWTRs in Colombia, Kenya, and Nepal. In addition, *Comarcas* in Panama recognize women’s rights on a case-by-case basis, with only some *Comarca*-specific laws providing gender-

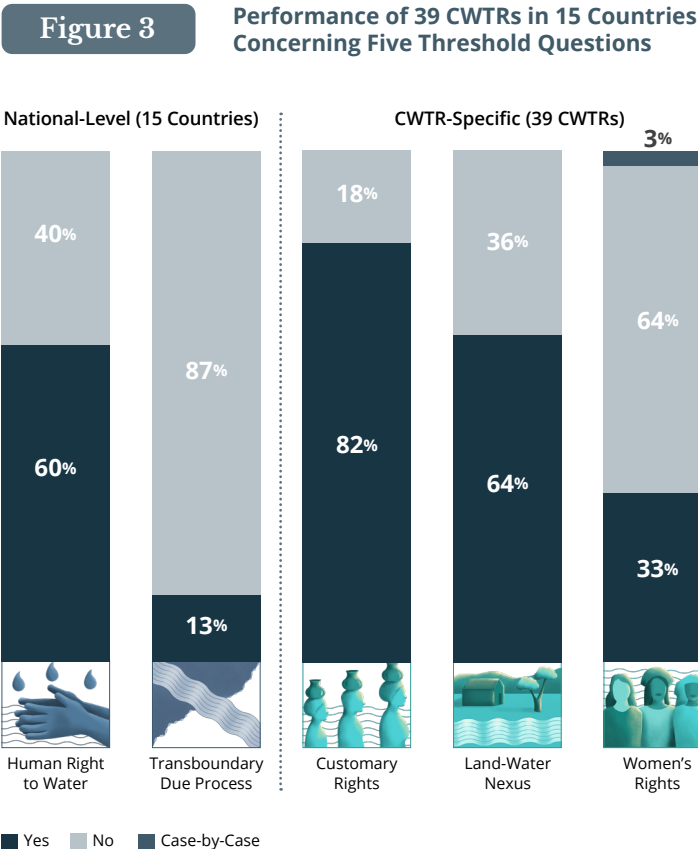
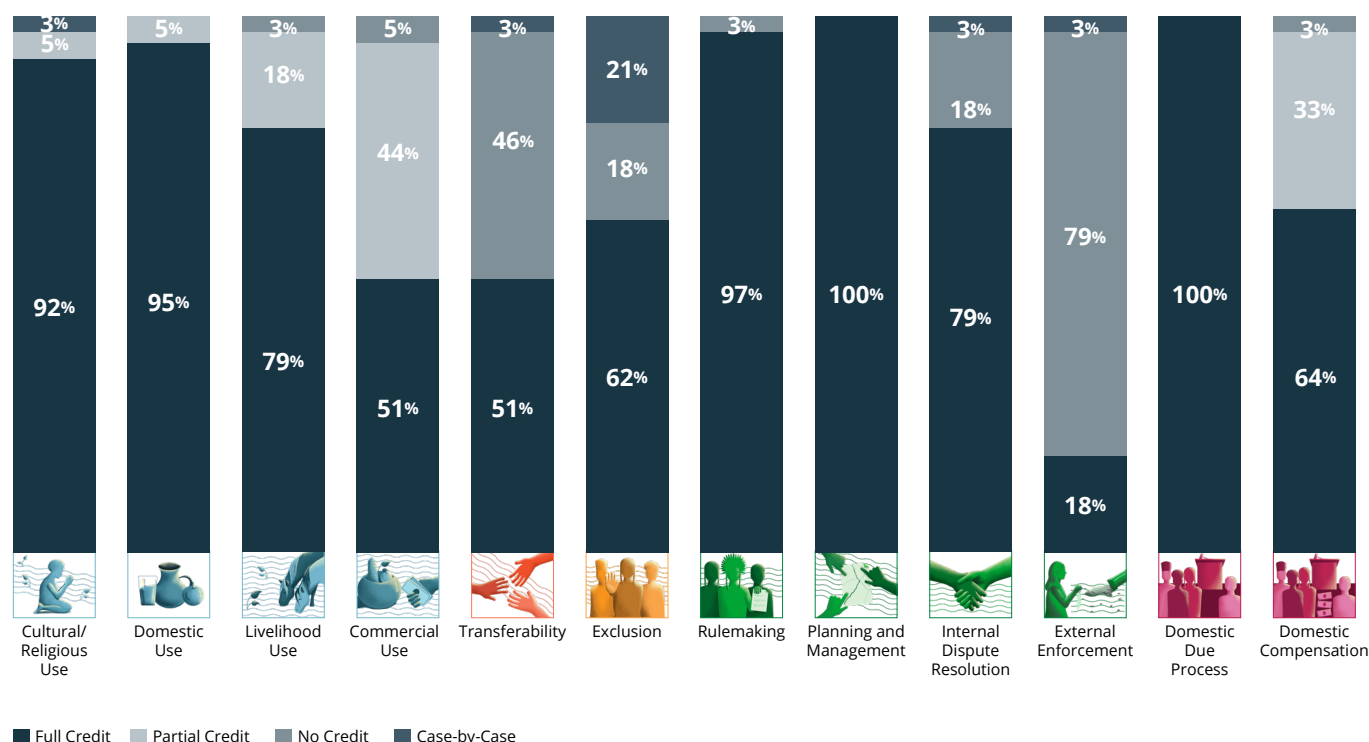


Figure 4

## Performance of 39 CWTRs in 15 Countries across Legal Indicators



sensitive protections. With the exception of external enforcement, women's water rights received the least legal recognition across all rights analyzed in this assessment.

All of the 13 gender-sensitive CWTRs specifically recognize women's governance rights. Eight (62 percent) of these 13 CWTRs recognize women's rights to participate in community-based decision-making processes pertaining to the management of community *land or territories*, which are interpreted to include rights to govern freshwater. The 5 CWTRs that explicitly recognize women's rights to govern community *water* resources include three kinds of WUAs: Irrigation Users' Associations in Nepal, Drinking Water Users' Associations in Nepal, and Water Users Associations on Leased Lands in Zambia. Both WUAs in Nepal explicitly require that a specified percentage of women serve on the associations' executive committees. The only 3 CWTRs that also specifically acknowledge women's freshwater *use* rights are in Zambia, where the Water Resources Management Act requires water to be managed based on a number of enforceable principles, including "equity between both genders in accessing water resources" and women's "[empowerment] and [full participation] in issues and decisions relating to the sustainable development of water resources and, specifically, in the use of water."<sup>126</sup>

The 13 CWTRs recognizing women's rights to use and/or govern freshwater also provide more consistent, adequate recognition of CWTR-specific rights to resolve internal disputes related to water. Twelve (92 percent) of the 13 CWTRs that recognize women's rights also recognize communities' dispute resolution rights, compared to 18 (72 percent) of the 25 CWTRs that do not explicitly recognize women's use or governance rights.

#### 4.6 Freshwater Use Rights

**Community-based rights to use water for cultural/religious, domestic, livelihood, and/or commercial purposes are recognized to some extent under the national laws of 14 countries, though the duration of communities' rights to use water for livelihood and commercial purposes are particularly likely to be limited through the imposition of either procedural requirements or other legal obligations.**

#### 4.6.1 Cultural/Religious Uses

Of the 39 CWTRs analyzed, 38 (97 percent) recognize communities' rights to use freshwater for cultural or religious purposes. Recognition of forest communities' cultural/religious water use rights are subject to government authorization in Liberia and Community Protected Area Management Agreements in Cambodia, both of which limit the duration of rights to use freshwater to 15 years (renewable). The recognition of communities' rights to use freshwater for cultural or religious purposes is determined on a case-by-case basis in 1 (3 percent) of 39 CWTRs (Water Users' Associations on Leased Lands in Zambia).

Communities' right to use freshwater for cultural or religious purposes is given legal priority over the water rights of other actors in 14 (36 percent) of the 39 CWTRs analyzed. In addition, all 3 CWTRs in Zambia (8 percent of 39 CWTRs) define domestic water uses as inclusive of cultural/religious water uses, and prioritize water use for domestic purposes over other water uses. Notably, all 4 CWTRs in Peru (10 percent of 39 CWTRs) prioritize all community-held water rights over those of other actors. The same CWTRs prioritize the rights of all users to freshwater for primary purposes (which are defined as inclusive of cultural, religious, and domestic purposes) over non-primary purposes.<sup>127</sup>

#### 4.6.2 Domestic Uses

All 39 CWTRs across the 15 countries studied recognize communities' right to use water for domestic purposes (i.e., those satisfying basic human and household needs). However, the same two CWTRs that limit the duration of cultural/religious water use rights also limit domestic water use rights through (renewable) 15-year community forest or protected area management agreements that must be approved by the government (Authorized Community Forests in Liberia and Community Protect Areas in Cambodia). The only CWTRs that establish procedural requirements for Indigenous Peoples or other local communities to utilize water for domestic or cultural/religious purposes are the 5 CWTRs in Panama. Panamanian national law allows both perpetual and time-limited water use permits to be issued for all water uses tracked in this analysis, although domestic and livelihood use permits are typically issued in perpetuity, and the government often lacks the capacity to enforce domestic, cultural, and livelihood use permitting requirements—particularly in rural areas where many Indigenous and local communities live.<sup>128</sup>

Where laws prioritize either communities' or all individuals' right to use water for domestic purposes, this provides an important basis upon which they can assert and defend these rights. Communities' right to use water for domestic purposes is more frequently prioritized than any other freshwater use right analyzed, receiving legislative prioritization in 25 (64 percent) of the 39 CWTRs analyzed. In particular, the domestic water use rights of *communities* are prioritized above those of all other actors in 14 (56 percent) of these 25 CWTRs. In an overlapping set of 16 (64 percent) of the same 25 CWTRs, the rights of all individuals to use freshwater for *domestic purposes* are prioritized over the right to use freshwater for other purposes. All 4 CWTRs in Peru and 1 CWTR in Colombia prioritize both communities' water rights and the right to use freshwater for domestic purposes over the water rights of other actors and for other purposes. This type of legal provision can provide an important mechanism for the realization of the human right to water by requiring countries to legally prioritize allocation for domestic/basic human needs and also by enabling communities to legally defend that right.

#### 4.6.3 Livelihood Uses

The right to use water for livelihood purposes, such as irrigation for small-scale agriculture, fisheries, or similar household-level uses that satisfy needs beyond subsistence but that do not amount to commercial use, is essential to communities' ability to alleviate poverty and maintain a basic quality of life. Among the 39 CWTRs analyzed, 38 (97 percent) recognize communities' right to use freshwater for livelihood purposes. The majority of these CWTRs (31 out of 38, or 79 percent) recognize communities' livelihood use rights in perpetuity, although communities are required to obtain perpetual use permits to carry out at least some small-scale productive uses in 12 (39 percent) of the same 31 CWTRs. In addition to permitting requirements, Panama also establishes other administrative requirements for Indigenous Peoples or other local communities to utilize water for livelihood purposes across all 5 of its CWTRs.

Only one CWTR—Pueblos indigenas u originarios en situacion de aislamiento y en situacion de contacto (Indigenous Peoples in Isolation and Initial Contact Situations) in Peru—does not recognize communities' livelihood use rights. Under Peruvian law, all water users are required to obtain a permit to legally use freshwater for livelihood purposes. However, because the land and resource rights of Indigenous Peoples in

Isolation and Initial Contact Situations are conditional upon maintaining their “isolated” status, any effort to secure a permit for livelihood uses would compromise their existing land and water rights—pointing to a clear disconnect between the requirements of existing legislation and the specific needs of these communities.

Thirteen (33 percent) of the 39 CWTRs analyzed explicitly prioritize communities’ right to use freshwater for livelihood purposes. An additional 3 CWTRs (8 percent of 39 CWTRs) include some or all livelihood uses within their national definition of “domestic” water uses, which are prioritized for all rightsholders (including communities) over water use for other purposes.

#### **4.6.4 Commercial Uses**

The legal recognition and realization of community-based rights to use water for commercial purposes (i.e., as an input for generating income or other benefits at a level higher than necessary to maintain livelihoods) is crucial to communities’ ability to pursue opportunities for economic advancement and sustainable development. However, across the four use rights assessed, communities’ commercial water use is most frequently subjected to time limitations, with almost all temporal restrictions stemming from the imposition of permit requirements. Of the 37 CWTRs recognizing communities’ rights to use freshwater for commercial purposes, 17 (46 percent) place time restrictions on these rights, which in most circumstances (16 out of 17 CWTRs, or 94 percent) stem from requirements to obtain limited term permits. Three of the 4 countries where water use permits can be granted in perpetuity for commercial purposes are located in Latin America (Bolivia, Panama, and Peru), and 1 is in Asia (Nepal). Notably, some commercial use rights are recognized through CWTRs that allow communities to become water services providers (e.g., Bolivia and Colombia), or take on the development and management of micro-hydropower production (e.g., Nepal).

Interestingly, communities’ right to use water for commercial purposes is prioritized above the commercial interests of other parties in 16 (41 percent) of the 39 CWTRs analyzed, and in 10 of these CWTRs—9 of which are found in Latin America—commercial use rights are protected in perpetuity. The 2 CWTRs that may not legally use freshwater for commercial purposes are Community Protected Areas in Cambodia and Indigenous Peoples in Isolation and Initial Contact Situations in Peru.

#### **4.7 Transferability**

**Communities’ ability to sell, lease, or otherwise transfer their freshwater rights are recognized in more than half of CWTRs.**

As discussed under Section 3, the recognition of community-based rights to transfer freshwater rights is often viewed as a double-edged sword. On the one hand, the ability to transfer water rights can enable communities to enter into water markets, where they exist, and facilitate community-led development. On the other, the ability to sell, lease, or otherwise transfer water rights often runs counter to many community-based conceptualizations of territory and the introduction of these rights has the potential to facilitate water-grabs. Bearing these potential outcomes in mind, it is thus necessary to know the status of communities’ recognized transferability rights.

Just over half of all CWTRs analyzed (20 of 39 CWTRs) recognize communities’ right to sell, lease, or otherwise transfer any of their freshwater rights. One additional CWTR (Asentamientos Campesinos con Títulos de Propiedad Colectiva in Panama) allows certain communities to transfer water use concessions that have been granted solely for agricultural purposes. Communities are not permitted to transfer their freshwater rights under the remaining 18 CWTRs (46 percent of 39 CWTRs). Not surprisingly, the transfer of freshwater rights is often expressly forbidden under circumstances where water rights are appurtenant to communities’ recognized territorial rights. This is the case across all CWTRs in Bolivia,<sup>129</sup> India,<sup>130</sup> and Peru.<sup>131</sup> In other instances, only permitted water uses are deemed transferrable (e.g. in Colombia,<sup>132</sup> Vietnam,<sup>133</sup> and Zambia<sup>134</sup>).

#### **4.8 Exclusion**

**Community-based rights to exclude third parties from freshwater sources to which they have rights exist in 24 (62 percent) of the 39 CWTRs identified, with 8 additional CWTRs (21 percent of the 39 CWTRs analyzed) recognizing such rights on a case-by-case basis.**

The right to exclude third parties is an important tool for Indigenous Peoples, Afro-descendants, and local communities to protect the freshwater resources they depend on, and thus forms a critical component

of community-based water tenure security. Adequate legal protection of this right often reflects situations where a land-water nexus enables communities to exclude third parties from water resources appurtenant to their lands, territories, or forests (e.g., Scheduled Tribes and other Traditional Forest Dwellers' Forestland in India, Les terres agricoles des communautés rurales in Mali, and *Territorio Indígena Originario Campesino* [TIOCs] in Bolivia). Across the 32 CWTRs recognizing exclusion rights under at least some circumstances, 22 CWTRs (69 percent) have a land-water nexus rendering some or all freshwater rights of use, governance, and exclusion dependent on legally recognized rights to land. Notably, where communities are required to acquire water use permits, those permits may allow communities exclusive use rights over specific sources and quantities of water, or for particular purposes, thus providing a basis for their exclusion of third parties (e.g., Irrigation Water User Associations in Nepal).

Unlike land, freshwater is commonly conceptualized as a shared, public good over which exclusive rights are rare. Given this globally predominant conceptualization,<sup>135</sup> most exclusion rights captured by this analysis are limited to the exclusion of private (non-state) parties. The overarching legal frameworks of most analyzed countries either: (1) consider water to be a public good, often subject to the public trust doctrine under which national water resources are vested in the state to manage and regulate in the public interest, (Bolivia, Colombia, India, Kenya, Mali, Mexico, Peru, Panama, Vietnam, and Zambia); or (2) assert outright state ownership over freshwater resources (Cambodia, Morocco, and Nepal). In a minority of situations, communities and other entities are able to assert perpetual, private water ownership (including alienation rights) over a wide range of water resources (Chile<sup>136</sup> and Liberia). In these cases, communities may have a greater ability to control or limit third-party access to freshwater resources over which they have legal rights.

Finally, the high percentage of CWTRs recognizing exclusion on a case-by-case basis (8 of the 39 CWTRs, or 21 percent) in comparison to other legal entitlements analyzed reflects the fact that exclusion rights are often tied to specific types of permits. In Nepal, only commercial permits enable exclusion for drinking and water consumer associations. Permits or concessions to water within legally recognized territories also provide exclusion rights for native and peasant communities in Peru, and *Ejidos and Comunidades* in Mexico. Finally, in some cases, community-based institutions can incorporate exclusion rights into their constitutive document, which is approved by the government (e.g., Water Resource Users' Associations in Kenya).

In contrast to CWTRs in Peru and Mexico that only recognize communities' right to exclude third parties who lack a state-issued water concession, the Customary Landholders outside of Community Forest Management Groups CWTR in Zambia explicitly anticipates situations where third parties seek commercial water use permits within communities' customary lands in order to carry out activities that would be "likely to substantially affect" communities' water supply for non-commercial purposes. Under Zambia's Water Resources Management Act, these third parties must first obtain the consent of traditional authorities and establish alternative measures to secure water resources for communities' domestic purposes.<sup>137</sup>

## 4.9 Governance

### 4.9.1 Rulemaking, Planning, and Management

**All but one CWTR analyzed recognizes communities' rights to both establish rules and to make and implement plans concerning the allocation, use, development, and protection of freshwater under their control.**

Rulemaking, planning, and management are the most foundational water governance rights of Indigenous Peoples, Afro-descendants, and local communities, as these entitlements are the principal means by which communities control their freshwater resources. Rulemaking rights allow communities to determine who can legally access and use water resources under their control. They utilize these rules to make plans pertaining to the use, protection, allocation, and development of water resources and then manage water according to those plans.

With the exception of Water Users' Associations on Leased Lands in Zambia, all CWTRs identified in this study (97 percent of the 39 CWTRs analyzed) legally recognize community-based rights to make rules concerning freshwater. Only 2 CWTRs (*Entidad Prestadora de Servicios de Agua Potable y Alcantarillado Sanitario* (EPSA) and *Comités de Agua Potable y Saneamiento* (CAPYS) in Bolivia and *Asentamientos Campesinos con Títulos de Propiedad Colectiva* in Panama) render communities' rulemaking rights contingent on the issuance of a permit or the completion of another procedural requirement.



While all 39 CWTRs recognize community-based rights to freshwater planning and management, these rights are subject to procedural requirements more often than the other three governance sub-indicators (rulemaking, dispute resolution, and external enforcement). Six CWTRs (15 percent of the 39 CWTRs analyzed) across Bolivia, Colombia, Panama, and Peru<sup>138</sup> require communities to fulfill some form of obligation (typically obtaining a permit) before they may lawfully exercise these water governance rights.

This analysis finds that rulemaking, planning, and management rights are commonly acknowledged in national laws through three principal means:

- as part of a broader legal recognition of communities' customary or traditional rights to territories (implicitly including the water resources therein) or to both lands and appurtenant resources, either explicitly or implicitly including water (e.g., Colombia, India, Kenya, and Mexico);
- as part of the establishment of a WUA or land/forest-oriented local management bodies tasked with implementing freshwater governance rights (e.g., Liberia, Nepal, and Vietnam); or
- pursuant to the recognition of private (e.g., Chile) or quasi-private (e.g., Cambodia) freshwater rights which can be held by both individuals and communities, and that are understood to include a wide range of governance and use rights.

All of these legislative approaches have benefits and drawbacks, and the success of each approach is context-specific. In some instances, various CWTRs within a given country may adhere to different approaches.

#### **4.9.2 Internal Dispute Resolution and External Enforcement**

**Indigenous Peoples', Afro-descendants', and local communities' right to resolve internal freshwater disputes is recognized by more than three-quarters of reviewed CWTRs. By contrast, the right to enforce rules against third parties is the least recognized CWTR-specific right assessed.**

Rights to resolve water disputes within a community are essential to the enduring stability and vitality of community-based institutions. Thirty-one (79 percent) of the 39 CWTRs analyzed recognize communities' right to settle internal freshwater disputes, with 1 additional CWTR (3 percent of 39 CWTRs) guaranteeing this right under some circumstances. However, to ensure third-party compliance with established community rules and entitlements, communities rely on external enforcement rights as a first line of defense against external threats. Communities' rights to enforce their freshwater rules against third parties is recognized in only 7 (18 percent) of the 39 CWTRs identified, with 1 additional CWTR (3 percent of 39 CWTRs) recognizing an external enforcement right on a case-by-case basis. Consequently, external enforcement is the least recognized CWTR-specific right analyzed in this assessment. Notably, this analysis does not identify any instances in which the realization of either of these rights is subject to a procedural requirement.

All 7 CWTRs with external enforcement rights also recognize the other three governance rights considered in this analysis. Moreover, nearly all of these CWTRs (6 out of 7 CWTRs, or 86 percent) also adequately recognize domestic compensation rights, and a distinct set of 6 CWTRs (86 percent) recognize exclusion rights. Finally, it is worth noting that in all 7 CWTRs, external enforcement rights stem from the same provisions that recognize community-level dispute resolution mechanisms. For instance, external enforcement rights are considered to be within the purview of Indigenous and/or local communities' jurisdictional rights in Bolivia and semi-autonomous *Comarcas* in Panama; they may also be established under Community Protected Area agreements in Cambodia, and through the recognized authority of community forest management bodies of Authorized Community Forests in Liberia and Community Forest Management Groups in Zambia.

#### **4.10 Domestic Due Process (Prior Notice, Consultation, and Appeal) and Compensation**

**All CWTRs identified across 14 countries recognize communities' domestic due process rights to prior notice, consultation, and appeal, yet communities' right to receive compensation from public and private entities who infringe upon or extinguish their freshwater rights is more limited.**

Prior notice, consultation, and appeal are essential procedural rights enabling communities to learn about, influence, and even prevent or stop developments or third-party actions and decisions that can negatively impact their freshwater rights. In many circumstances, these rights are a last but crucial resort when community freshwater tenure rights are threatened. Where negative impacts to community waters are



inevitable, the right to receive just compensation for the incurred harm may play a pivotal role in enabling communities to respond to the loss of water quantity, quality, or accessibility.

All 39 of the CWTRs identified in this study recognize communities' due process rights of prior notice, consultation, and appeal when decisions related to the development or allocation of freshwater, or other related matters, could impact their freshwater rights. The legal pathways through which due process rights are recognized across the countries analyzed are diverse. Prior notice and consultation rights are statutorily established through countries' water and environmental framework laws (e.g., Kenya and Nepal), constitutions and Constitutional Court decisions (e.g., Colombia and Mexico), and as a requirement triggered by government expropriation of land where water rights are dependent on land rights (i.e., Cambodia and India).<sup>139</sup> Notably, both Bolivia and Liberia recognize communities' rights to FPIC when decisions or actions may impact their territorial rights,<sup>140</sup> and Zambian national law places the right of prior notice and consultation primarily in the hands of traditional chiefs.<sup>141</sup> Peru's Law Of The Right To Prior Consultation To Indigenous Or Native Peoples provides for prior consultation with a view to "reach an agreement or consent among the State and Indigenous or native peoples" where legislative or administrative measures "directly affect their collective rights, on their physical existence, cultural identity, quality of life or development" as well as on "plans, programs and national and regional development projects" that affect these rights. Colombia's Constitutional Court has made several decisions expanding on the prior consultation rights of Indigenous and Afro-Colombian communities, including a judgment affirming the Saramaka case decided by the Inter-American Court of Human Rights that found FPIC to be required where large-scale developments could impact Indigenous resource rights.<sup>142</sup> Findings demonstrate that communities' right to appeal a decision or action impacting their freshwater can be incorporated as part of sectoral laws (e.g., Nepal), through broader legal provisions on expropriation (e.g., India), via constitutional provisions allowing citizens to appeal infringements on their constitutional or human rights (e.g., Mexico), or as part of broad rights to civil remedies (e.g., Mali).

Twenty-five (64 percent) CWTRs also recognize communities' rights to receive compensation from both public and private parties who infringe upon or extinguish their rights. Notably, 17 (68 percent) of these 25 CWTRs render communities' freshwater rights dependent on legally recognized land rights—thereby allowing communities to receive compensation from both government and private actors for the loss of freshwater rights only where they are appurtenant to revoked land rights. For example, when the Indian government acquires community land (and appurtenant waters) for a public purpose, communities are guaranteed compensation if a court finds that the acquisition involved an act or omission that polluted or otherwise environmentally damaged their water resources.<sup>143</sup> Compensation for revocation or substantial infringement of entitlements granted under water permits is less common, but can enable communities to seek compensation where it exists, as in Cambodia and Nepal.

However, communities' right to receive compensation for lost freshwater rights is restricted to either private or public parties in 13 (33 percent) CWTRs, and 1 CWTR (Asociaciones de usuarios de agua de comunidades locales sin títulos de propiedad in Panama) fails to recognize any domestic compensation rights. Of the 13 CWTRs with limited compensation rights, 9 CWTRs (including all CWTRs existing in Nepal, Mexico, and Zambia) explicitly and solely require compensation to be issued by government actors that infringe upon community freshwater rights. One reason for the absence of a compensation requirement for private parties is these countries' stance that states either own or primarily control freshwater on behalf of the public and, consequently, that governments are fundamentally responsible for providing any compensation to parties' whose freshwater rights are impacted, and for authorizing third parties to interfere with others' freshwater rights only if such actions are in keeping with the public interest. Indeed, Zambia's Water Resources Management Act explicitly prohibits private property ownership rights over water (asserting that such rights are vested in the President on behalf and for the benefit of the Zambian people),<sup>144</sup> and Nepal's Water Resources Act asserts state ownership over water.<sup>145</sup>

Colombia stands out as a country where the state's assertion of the public trust doctrine has been interpreted to exclude water resources from being held as territorial property of Indigenous and local communities, and therefore precludes the possibility of the government paying compensation for the loss of communities' freshwater rights. While this stance does limit communities' compensation rights,<sup>146</sup> Colombia's Constitutional Court has expanded communities' compensation rights against private parties, ruling that damages caused to the lands and waters inhabited by Afro-Colombian communities by both lawful and unlawful mining and forest exploitation activities by private sector actors must be compensated based on a finding that these communities have fundamental "biocultural" rights to a healthy river ecosystem in their territory.<sup>147</sup>

#### 4.11 Transboundary Due Process (Prior Notice, Consultation, and Appeal)

**National-level provisions for the protection of community-based transboundary due process rights are rare: only 2 of the 15 countries analyzed provide adequate protection for this right.**

Upstream decisions and development activities that take place in a country that is part of a transboundary basin can pose significant challenges for communities living in other countries within the basin. For this reason, transboundary due process rights are especially important tools for protecting community-based freshwater security, as they provide judicial and administrative means to guard against actions or decisions that negatively impact shared transboundary watercourses.

There is a marked dearth of protections for communities' rights to transboundary due process, with just 2 (13 percent) of the 15 countries analyzed adequately protecting their due process rights within transboundary contexts (Panama and Zambia). Due process provisions in international agreements pertaining to Panama and Zambia explicitly contemplate the prior notice, consultation, and participation rights of potentially impacted communities during decision-making and development processes impacting transboundary waterways. These rights are recognized in the following international agreements:

- The Agreement Between Panama and Costa Rica on Cooperation for Border Development (1992), (ratified through Panama's Law 16 of 1994) governing the Sixaola River Basin (Panama's only transboundary waterway) and the Statute for the Binational Commission of the Sixaola River Basin, approved by both countries on January 14, 2013 and amended in 2017;
- The Convention on the Sustainable Management of Lake Tanganyika (June 12, 2003) (between Zambia, Burundi, the Democratic Republic of the Congo, and Tanzania).<sup>148</sup>

Thirteen (87 percent) out of 15 countries—including all 4 Asian countries assessed—fail to protect the full suite of transboundary due process rights for communities under either domestic law or international treaties/agreements. Mali recognizes communities' (and all water users') transboundary rights of prior notice and consultation, but not appeal rights,<sup>149</sup> whereas the remaining 12 countries fail to recognize communities' prior notice, consultation, and appeal rights in transboundary contexts. Notably, all 12 of the countries that fail to recognize any transboundary due process rights for potentially impacted water users are, nonetheless, party to international treaties governing transboundary watercourses.<sup>150</sup>

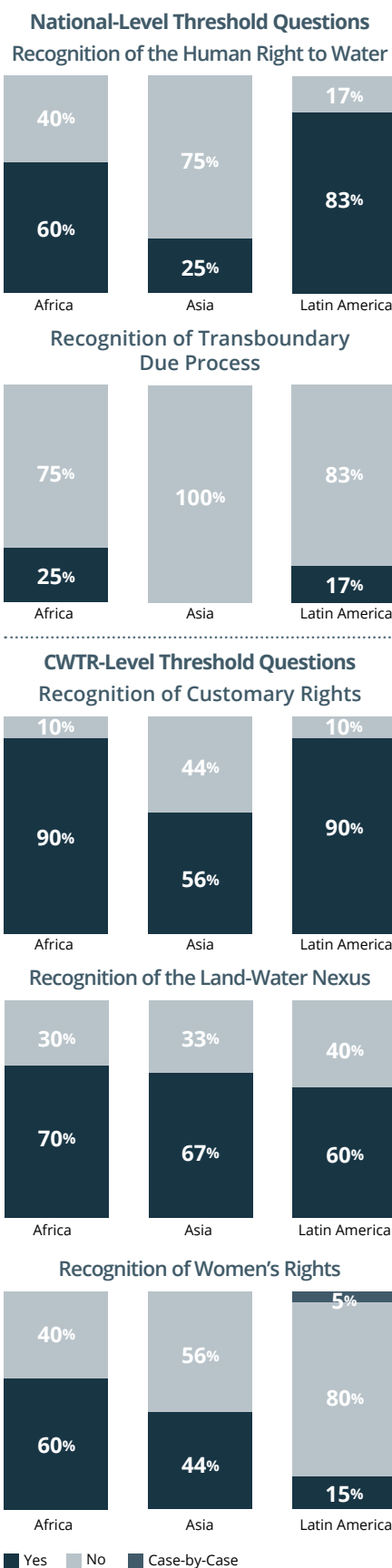
The extremely low recognition of communities' transboundary due process rights also reflects the manner in which these rights are afforded to individuals/groups potentially impacted by transboundary activities/decisions during transboundary environmental impact assessment processes. Under the judgment of the ICJ in *Pulp Mills on the River Uruguay* (Argentina v. Uruguay), transboundary impact assessment processes are deemed a "requirement under general international law" as an obligation between states, but the specific due process rights of citizens or groups impacted in one state are determined by the impact assessment requirements of the impacting state's laws.<sup>151</sup> Because the national laws of non-focus countries bordering the 15 countries analyzed in this report are outside the scope of the study, the presence of additional transboundary due process rights under the domestic laws of all riparian countries was not investigated.

#### 4.12 Regional Findings

The customary laws and practices, cultural identities, political and historical contexts, and development challenges of Indigenous Peoples, Afro-descendants, and local communities vary tremendously across and within Africa, Asia, and Latin America

**Figure 5**

**Performance by Region across Threshold Questions**



America. Due in part to this diversity, the regional findings of this study are mixed: no region provides consistently stronger legal protections across CWTRs or all of the legal indicators assessed. As the status of community-based freshwater tenure is studied across a greater number of countries and CWTRs over time, it is possible that a more distinctive picture of regional and sub-regional trends will emerge. Currently, however, the findings presented below represent the key regional differences among the CWTRs recognizing communities' rights to freshwater identified through this baseline analysis.

#### 4.12.1 Africa

**The 5 African countries included in this study are: Kenya, Liberia, Mali, Morocco, and Zambia.**

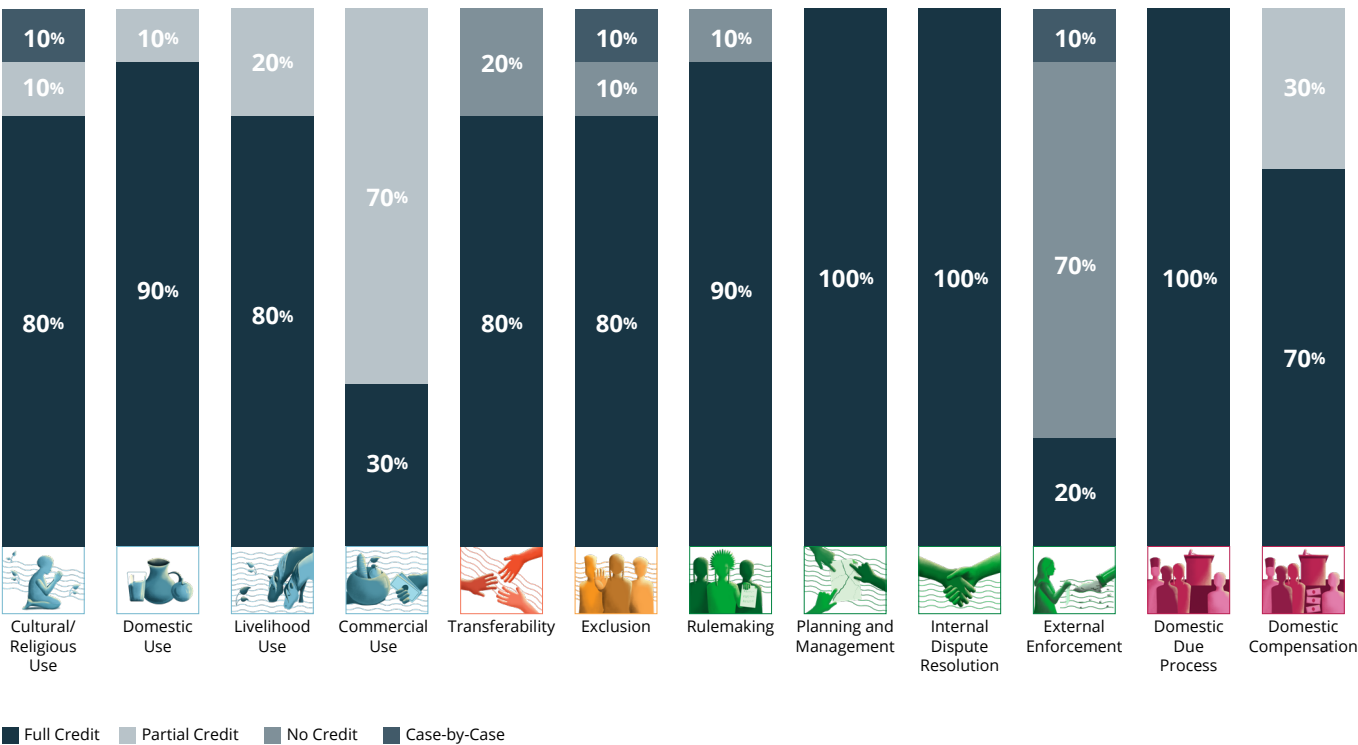
The national laws of Kenya, Liberia, Mali, and Zambia cumulatively recognize 10 CWTRs. Morocco is the only country where no CWTR was identified during the course of this analysis. Morocco's failure to legally recognize community-based rights to freshwater stems from legislative changes in 1913 that decoupled community-based freshwater rights from recognized rights to land.<sup>152</sup> The lack of community-based water tenure rights is even more notable as Morocco is also the most water-stressed country featured in this analysis.<sup>153</sup>

Seven out of 10 African CWTRs (70 percent) are characterized by a land-water nexus. Where it exists, this nexus proves instrumental in according communities with exclusion rights; all 7 CWTRs that render communities' water rights dependent on recognized land rights also recognize exclusion rights, whereas only 1 of the 3 African CWTRs without a land-water nexus recognizes communities' exclusion rights. Overall, African CWTRs provide the most consistent recognition of exclusion rights among the three regions studied.

Although all 10 African CWTRs recognize communities' rights to use freshwater for commercial purposes, only 3 CWTRs (30 percent) recognize these rights in perpetuity. By comparison, 5 (56 percent) of 9 Asian CWTRs and 13 (60 percent) of 20 Latin American CWTRs recognize communities' commercial water use rights for an unlimited duration. Among the 7 African CWTRs (70 percent of African CWTRs) where commercial use rights are limited in duration, time restrictions in 6 of these CWTRs—including 3 CWTRs in Kenya and Zambia respectively—are due to permit requirements.

**Figure 6**

**Performance of 5 Countries in Africa Concerning the Recognition of Community Freshwater Rights in 11 CWTRs**



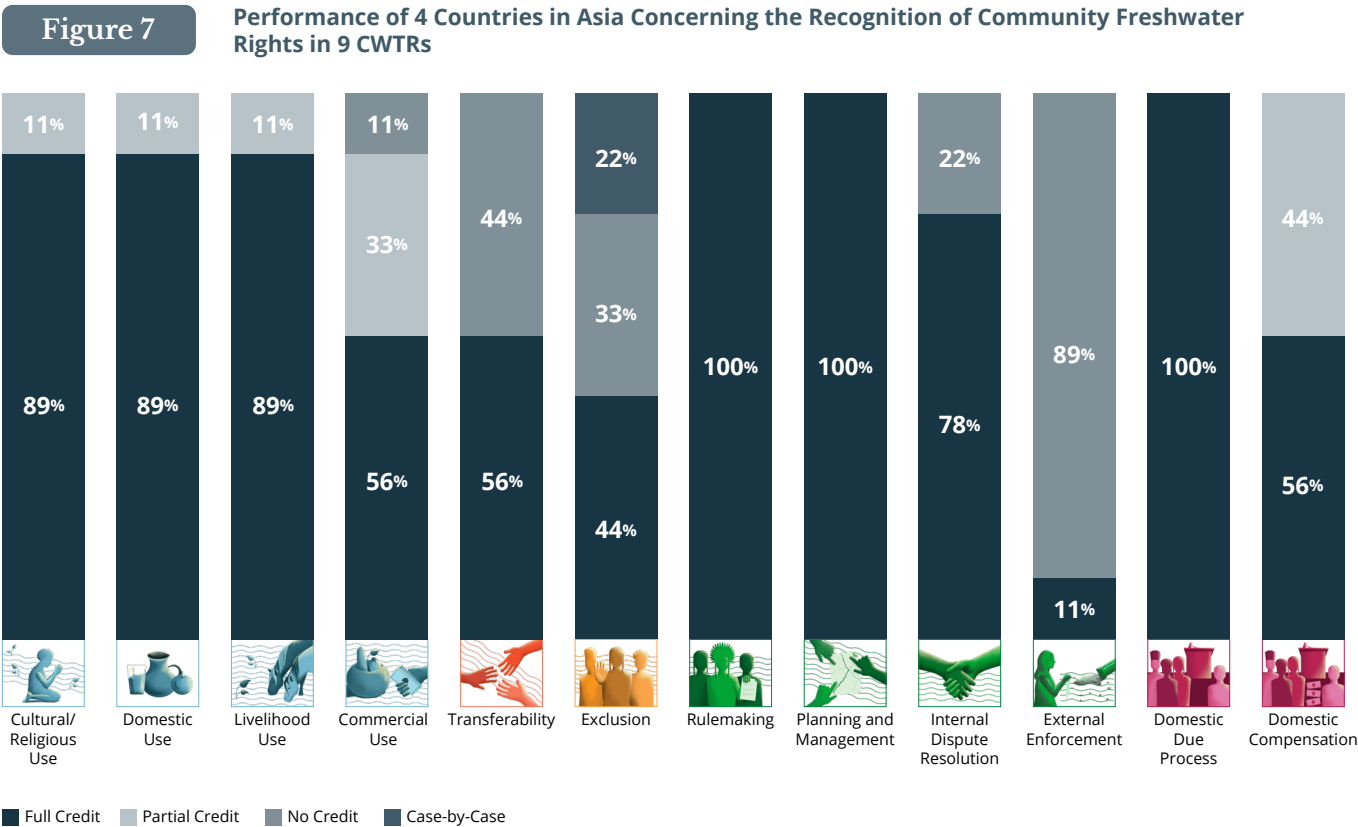
All CWTRs analyzed in Africa adequately recognize governance rights of planning, management, and internal dispute resolution, and 9 (90 percent) of these 10 CWTRs recognize both communities' customary water rights and their rights to make their own rules concerning their freshwater resources. Liberia is notable in this respect, as it is the only country among those assessed with no national water framework law, such that recognition and protection of the water governance rights of customary landholders and forest communities rest solely on the basis of a land-water nexus, further underlining the importance of the nexus. The only CWTR in this study where communities' customary water rights and rulemaking rights are not protected is Water User Associations on Leased Lands in Zambia.

African CWTRs also provide the strongest protections for women's rights to use and/or govern community waters, with gender-sensitive provisions identified in legislation pertaining to 6 (60 percent) of 10 CWTRs. All 3 CWTRs in Zambia recognize women's rights to both use and govern waters to which their communities have recognized rights. Moreover, African CWTRs most consistently recognize communities' right to transfer any of their freshwater rights. Eight (80 percent) of 10 African CWTRs allow communities to sell, lease, or otherwise transfer any of their rights to freshwater, compared to 5 (56 percent) of 9 CWTRs in Asia and 7 (35 percent) of 20 CWTRs in Latin America.

#### 4.12.2 Asia

**The 4 Asian countries included in this study are: Cambodia, India, Nepal, and Vietnam.**

There are 9 CWTRs cumulatively recognized by the national laws of Cambodia, India, Nepal, and Vietnam. Two-thirds (6 out of 9) of the Asian CWTRs analyzed are characterized by a land-water nexus. In 5 of these same 6 CWTRs (including all 3 CWTRs identified in Cambodia and the 2 CWTRs identified in India) the nexus stems from legal provisions recognizing the customary rights of Indigenous Peoples and local communities to both terrestrial and freshwater resources. The relationship between communities' recognized land and water rights is particularly critical as the Asian countries studied all rank among the 20 countries with the greatest annual average population impacted by river floods. On average, at least 6.1 million people are affected by river flooding across these four countries each year, with over 4.8 million people impacted in India alone.<sup>154</sup>



When compared to the CWTRs analyzed across Africa and Latin America, Asian CWTRs provide the least consistent protection of communities' exclusion and external enforcement rights. Less than half (4 CWTRs, or 44 percent) of the 9 Asian CWTRs adequately recognize exclusion rights, compared with the majority of CWTRs in Latin America (12, or 60 percent, of 20 CWTRs) and Africa (8, or 80 percent) of 10 CWTRs. Only 1 (11 percent) of 9 Asian CWTRs recognizes communities' right to enforce penalties on external actors, compared to one-fifth of the CWTRs in both Africa (2 out of 10 CWTRs) and Latin America (4 out of 20 CWTRs). All 9 Asian CWTRs adequately protect communities' rulemaking, planning, and management rights. Additionally, communities' due process rights of prior notice, consultation, and appeal are recognized under all 9 CWTRs across the Asian countries analyzed.

### 4.12.3 Latin America

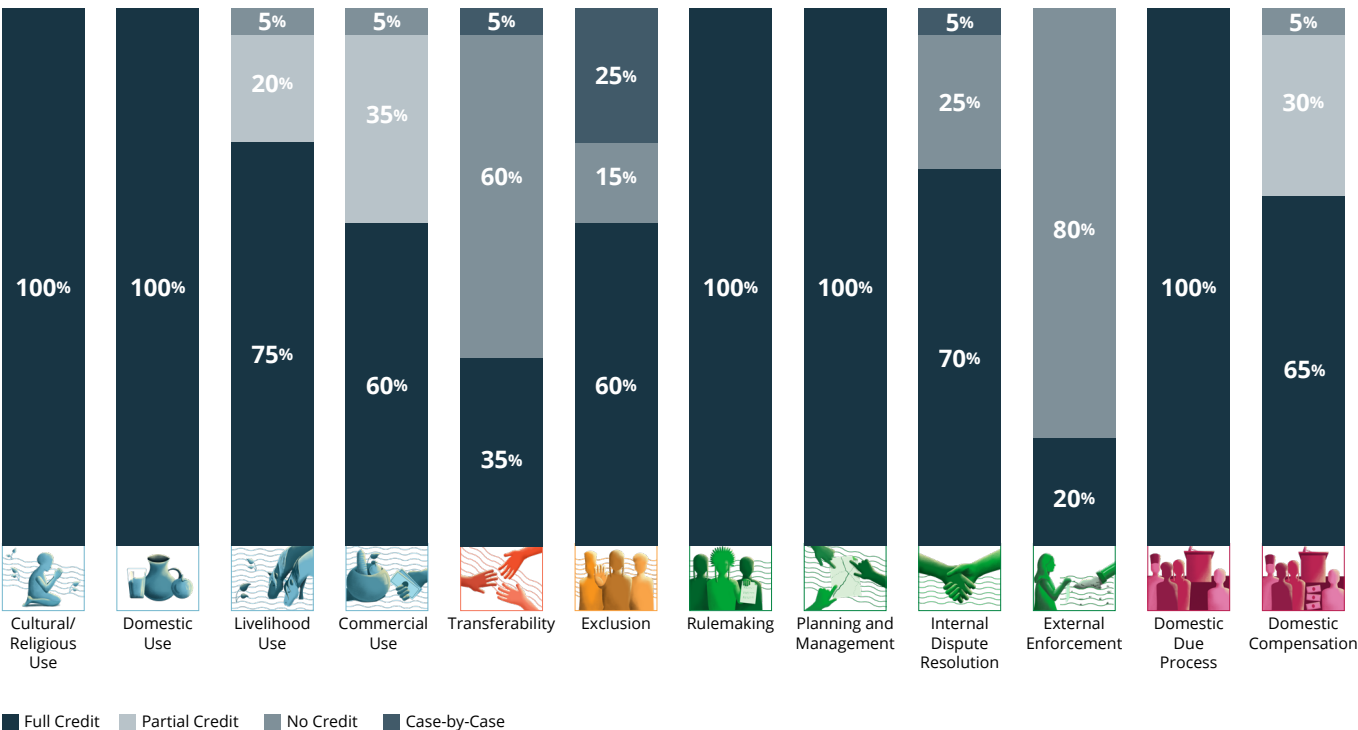
**The 6 Latin American countries included in this study are: Bolivia, Chile, Colombia, Mexico, Panama, and Peru.**

Half (20) of the total CWTRs identified through this analysis stem from the national laws of 6 Latin American countries. Two of these countries, Chile and Panama, are HICs. All 20 CWTRs within these countries recognize Indigenous Peoples', Afro-descendants', and/or local communities' rights to use water for both domestic and cultural/religious purposes in perpetuity. Notably, Panama is the only country within the scope of this analysis that requires communities under the CWTRs analyzed to obtain a permit or other form of authorization in order to use water for cultural and/or religious, as well as domestic, purposes.

Similarly, commercial use rights in Latin America are subject to the greatest proportion of procedural obstacles. Nineteen (95 percent) of the 20 Latin American CWTRs recognize communities' rights to use freshwater for commercial purposes, but these rights are subject to procedural requirements in 18 (95 percent) of these 19 CWTRs. Comparatively, 6 (86 percent) of the 7 African CWTRs and 5 (63 percent) of the 8 Asian CWTRs recognizing communities' commercial water use rights institute permit or other administrative requirements. Chile is the only Latin American country analyzed to recognize the community-based right to use freshwater commercially without an associated procedural burden. In 7

**Figure 8**

**Performance of 6 Countries in Latin America Concerning the Recognition of Community Freshwater Rights in 20 CWTRs**



(37 percent) of the 19 Latin American CWTRs that recognize commercial water use rights, procedural requirements result in the limited duration of communities' rights.

All 20 CWTRs in the Latin American countries analyzed adequately recognize Indigenous Peoples', Afro-descendants', and/or local communities' governance rights related to rulemaking, planning, and management—though 2 (10 percent) of these CWTRs institute permitting or other procedural requirements on communities' rulemaking rights, and 6 (30 percent) of these CWTRs place such requirements on their ability to exercise water planning and management rights. In comparison, none of the CWTRs assessed in Africa or Asia impose procedural obstacles on communities' water governance rights.

Moreover, Latin American CWTRs provide the weakest protection of community-level dispute resolution processes. Just 14 (70 percent) of 20 Latin American CWTRs recognize communities' right to resolve internal disputes, as compared to 7 (78 percent) of the 9 CWTRs in Asia and all 10 (100 percent) CWTRs in Africa. This finding is consistent with RRI data on the recognition of community-level dispute resolution bodies within legally recognized community forests. The 2017 analysis *Power and Potential* found that 53 percent of 28 legal frameworks in Latin America address mechanisms for resolving community-level tenure disputes (as compared with 57 percent and 69 percent of legal frameworks in Asia and Africa, respectively). Only 14 percent of the 28 legal frameworks analyzed in Latin America specifically protected women's rights to access community dispute resolution mechanisms.<sup>155</sup>

Notably, despite their strong recognition of Indigenous Peoples', Afro-descendants', and local communities' rights to use and govern freshwater, the 20 Latin American CWTRs included in this analysis provided the weakest protections for women's rights of any region analyzed. National laws governing community lands and forests provide gender-sensitive recognition of women's specific right to participate in the governance of community freshwater in just 3 (15 percent) out of 20 CWTRs, in contrast with the 4 (44 percent) out of 9 CWTRs in Asia and 6 (60 percent) out of 10 CWTRs in Africa that statutorily protect women's rights to community waters. The comparative lack of recognition for women's freshwater governance rights across the Latin American CWTRs parallels another regional result on women's recognized community forest rights highlighted in *Power and Potential*, which found that Latin American countries generally lagged behind those in Africa and Asia with respect to acknowledgement of women's right to participate in community-level executive leadership bodies responsible for community forest governance.<sup>156</sup>

Finally, Latin American CWTRs were least frequently characterized by a land-water nexus—although in several Latin American CWTRs where water rights are not dependent on land rights, water rights still receive the strongest protections within legally recognized community lands<sup>157</sup>—and exhibited the lowest recognition of Indigenous Peoples', Afro-descendants', and local communities' rights to sell, lease, or otherwise transfer freshwater rights. The 7 CWTRs (35 percent of the 20 Latin American CWTRs analyzed) cumulatively identified across Chile, Colombia, and Mexico are the only Latin American CWTRs where transferability rights are recognized.

## Chapter 5: Implications

---

This baseline analysis provides compelling evidence that, across multiple countries and regions, legal foundations exist for recognizing and protecting community-based water tenure rights. To realize these rights, it will be essential for countries to foster increased coherence among legal frameworks and decision-making processes governing water, land, and broader territorial tenure rights in ways that recognize, respect, and promote the realization of the full suite of rights and development priorities of Indigenous Peoples, Afro-descendants, and local communities, while empowering women within those communities to participate equitably and meaningfully in resource governance.

The distinct bundle of water rights assessed in this study reflect the entitlements most central to communities' water tenure security and provides a critical basis for the further articulation of water tenure and the role that it plays broadly in achieving equitable and sustainable water management, and specifically in supporting the unique needs and priorities that Indigenous Peoples, Afro-descendants, and local communities have in stewarding their resources. Future efforts to define and promote secure community-based water tenure should be informed by the following key implications of this study:

**1. While community-based water tenure regimes characterized by a land-water nexus more consistently recognize a wider range of legal entitlements to water, the ability of communities to secure their land, water, and broader territorial rights relies on legislative coordination and harmonization across sectors.**

Over three quarters of the 39 CWTRs in this study adequately recognize communities' rights to: use water for cultural/religious, domestic, and livelihood purposes in perpetuity; contribute to freshwater governance through rulemaking, planning and management, and internal dispute resolution processes; domestic due process; and exercise customary water rights. Comparatively fewer of the 39 CWTRs analyzed adequately protect communities' rights to receive compensation from both public and private actors when their water rights are infringed (64 percent); exclude third parties from freshwater resources (62 percent); transfer freshwater rights (51 percent); use freshwater for commercial purposes in perpetuity (51 percent); and enforce community-based rules against third parties (18 percent). **Across the countries analyzed, the presence of a legislative "land-water nexus" is often an essential factor in communities' abilities to claim, protect, and realize water tenure rights, serving as their only source of recognized water entitlements under the national laws of Cambodia, India, Liberia, and Mexico.** Overall, the 25 CWTRs with a recognized land-water nexus tend to provide more consistent and adequate protection of communities' freshwater rights of use for livelihood purposes, transferability, exclusion, rulemaking, internal dispute resolution, external enforcement, and domestic compensation, as well as recognition of their customary water rights and of women's rights to community waters.

While the benefits of a legislative land-water nexus are clear and measurable, **land laws frequently address water only implicitly or in passing, viewing water rights as part of a wider set of natural resource rights that may be claimed as appurtenant to land or territorial rights. Similarly, water laws rarely speak directly to the legal status of communities' customary water or broader resource rights, nor do they address how legislatively-imposed, community-based water management mechanisms (such as WUAs) or water permit systems interact with acknowledged community land rights.** This lack of harmonization reflects the persistent treatment of land and water as separate resources, which in turn reflects the pervasive sector-based approach taken by government agencies, civil society, international development organizations, advocates, and others focused on either aquatic or terrestrial resources.

**The need for better legal and regulatory protection of community water tenure rights in situations where such rights are not exclusively tied to land or forest tenure is also made clear by this analysis.** CWTRs without a land-water nexus are more strongly influenced by water legislation, and their comparative weaknesses indicate that analyzed water laws are less focused on community-based rights than land laws. For example, while customary water rights are recognized in 32 CWTRs (82 percent of the 39 CWTRs analyzed) spanning 12 countries, the legal recognition of these rights stems from framework water or irrigation laws in just four of these countries (Bolivia,<sup>158</sup> Mali,<sup>159</sup> Peru,<sup>160</sup> and Zambia<sup>161</sup>). Given communities' integrated resource practices and reliance on community-based resource tenure arrangements, **harmonization across water, forest, and land legislation is also important where**



Recent and ongoing national legal developments provide new opportunities to ensure that the water tenure rights of Indigenous Peoples, Afro-descendants, local communities, and the women within these communities are clearly recognized and secure. In particular, a number of notable legislative developments promoting community-based water rights have occurred in Africa in recent years. For example, Mali's 2017 Agricultural Law recognizes the customary water rights of communities where they have rights to agricultural lands, which are defined to include "all lands occupied by agricultural, pastoral, forestry, or piscicultural activities or intended to accommodate one or other of these activities."<sup>i</sup> Most recently, the **Liberian Land Rights Act (LRA)** was passed in September 2018, providing enforceable legal recognition for all customary lands, including the right to "possess and use" the water resources thereon.<sup>ii</sup> The Act recognizes communal ownership of customary land and water resources, defining this to include rights of exclusion, transferability, and to free, prior, and informed consent (FPIC) for any "interference with or use of" customary land (excluding minerals). Management of community land and resources is the mandate of newly-created Community Land Development and Management Committees, which must have equal representation of men and women, thus ensuring broader rights for women in water management.<sup>iii</sup> As Liberia has no national water legislation, the recognition of water rights appurtenant to customary lands under the LRA entitles communities to the full suite of water use and governance rights assessed in this study, unhindered by any licensing or permitting requirement. Notably, however, communities with customary land and water rights under the LRA do not have the right to enforce internal rules against third parties.

**Nepal** is currently in the process of **revising its Water Resources Act** and **Hydropower Act**, as well as drafting new **Drinking Water** and **Forestry Bills**. At the time of writing, these developments are expected to include gender-sensitive entitlements and to promote perpetual water rights for communities not engaging in hydroelectric activities, reinforcing both women's water rights and community-based water tenure.<sup>iv</sup> Under the Forestry Bill, women are expected to be allocated 50 percent of the benefits from the activities of Community Forestry User Groups (CFUGs) to use for poverty alleviation, gender empowerment, and women's livelihood activities including enterprise development.<sup>v</sup> The Forestry Bill is also expected to include provisions that enable CFUGs to receive payment for ecosystem services from downstream water user associations, which would provide both income for these CWTRs and incentive for continued sustainable water resource management.<sup>vi</sup> The Drinking Water Bill is expected to alleviate the considerable administrative burden currently placed on communities—who are currently required to undertake up to three separate processes in order to gain rights to use water for drinking, consumptive, and irrigation purposes – by establishing a process for forming users' associations that recognize all water uses in an integrated manner. However, communities and advocates in Nepal have outstanding concerns that, due to Nepal's ongoing decentralization process, the new legislation could require communities to re-register their existing water use rights at the office of prescribed authorities in order to retain those rights, placing added procedural and monetary burdens on those communities. Additionally, the government has proposed a 25-year limit for commercial water use rights in the Bill for all types of water users associations including community-based water users groups, which would eliminate the perpetual licenses currently available to communities for commercial (non-hydroelectricity) activities. Finally, it is unclear whether there will be any provisions to support gender equity or women's water rights specifically, which could undermine the existing quotas established to ensure women's participation in decision-making under the Drinking Water Rules (and other User Association Rules). Both bills are under discussion in Parliament.

Finally, in 2012, **Mexico** amended Article 4 of its Federal Constitution to include the human right to water, including an order to the Federal Congress to issue a General Water Law to implement this right. While this Water Law has not yet been passed, the current administration is working to address issues with current drafts in response to pressure from civil society and to the 2017 UN Special Rapporteur on the Human Right to Water and Sanitation report, which stressed that the revised national water law will be instrumental in helping to ensure the right to water in practice and must clearly recognize water for human consumption as the priority among water uses, and provide additional enabling conditions for its realization.<sup>vii</sup>

Efforts are also underway to reform Chile's Water Code,<sup>viii</sup> and further opportunities may exist to influence the development of implementing regulations associated with Kenya's Water Act of 2016.<sup>ix</sup> These legislative developments and openings provide windows of opportunity to further recognize, support, and protect the water tenure rights of Indigenous Peoples, local communities, and the women in those communities.

**legal frameworks do not exclusively tether community water rights to community land rights.**

In these circumstances, a particular focus on community water tenure as distinct from the tenure of other rightsholders is also essential to consistent realization of water rights.

**2. Procedural requirements for the lawful realization of community freshwater rights often represent formidable obstacles to communities' sustainable livelihoods and economic development, creating barriers that can limit the duration of communities' rights to use freshwater, and can be so onerous as to effectively undermine the rights in question.**

Communities face a broad range of procedural obstacles to realizing their water use, governance, and exclusion rights, and chief among these are water use permits. While permitting systems can help monitor and regulate water use, reduce associated conflicts, enhance sustainability, and generate public revenue, they are seldom adapted to meet the needs and circumstances of Indigenous Peoples, Afro-descendants, and local communities. Findings suggest that this is especially the case when permit requirements threaten communities' rights to use water for their basic human needs, preservation of their livelihoods and broader pursuit of economic advancement.

Inconsistencies in the ways CWTRs define domestic, livelihood, and commercial water uses means that water use for some livelihood purposes can be exempt from permitting while other (potentially essential) uses may be subject to a permit. Communities require a permit for abstracting water for livelihood needs in well over one-third (44 percent, or 17 CWTRs) of the 39 CWTRs analyzed, including situations where customary freshwater rights are broadly recognized. For many communities, mandated water permitting processes can represent an insurmountable burden as they lack the necessary resources—financial, legal, and otherwise—to obtain and maintain permits, many of which expire and must be renewed after a specified duration if communities are to continue to use water lawfully. For instance, the short-term nature of livelihood permits required in 5 (29 percent) of these 17 CWTRs predicates communities' livelihood rights on their ability to fulfill sometimes complicated and costly requirements repeatedly over time.<sup>162</sup>

Commercial water uses are the most heavily burdened by permitting requirements among the use, governance, and exclusion indicators, with 29 (74 percent) of the 39 CWTRs in this analysis requiring a commercial use permit for communities wishing to pursue community enterprises. **Bolivia, Colombia, Kenya, Mexico, Panama, Vietnam, and Zambia most frequently rely on either perpetual or time-limited permits to regulate commercial water use by communities.**<sup>163</sup> While such requirements are reasonable for tracking and controlling activities requiring high volumes of water or that could impact water quality or availability for others, the same reasoning is seldom applicable to commercial community enterprises that have both lower water needs and stronger incentives to protect and conserve the resource they depend on for all of their needs. Moreover, procedural requirements that, in practice, place more onerous burdens on communities than private companies detract from the critical role that community enterprises can play in the advancement of locally defined economic strategies that support Indigenous Peoples', Afro-descendants', and local communities' rights of self-determination and longer-term development.

Beyond the previously cited procedural requirements, at least 21 of the CWTRs also require communities to fulfill other obligations to realize their freshwater rights under national law, including: incorporating as a legal entity, drafting and receiving government approval of management agreements or other constitutive documents for the formation of a community-based water user association or management institution, institutional registration requirements, or receipt of a land title. In many cases, communities may have to fulfill more than one of these requirements to obtain recognized water tenure rights. In Nepal, for example, communities must form up to three distinct WUAs—all regulated by separate regulations—in order to obtain the full suite of water use rights for the range of necessary domestic, livelihoods, commercial, and cultural purposes.<sup>164</sup> Placed in the context of evidence from 15 countries which demonstrate that, on average, communities are required to undertake two to three more procedural steps than companies in order to formalize their land or forest rights,<sup>165</sup> the findings of this analysis further suggest that resource permitting processes are more often tailored to the capabilities of private individuals and companies rather than those of communities.

**The uptake and expansion of approaches that broaden permitting exemptions to include livelihood uses or otherwise reduce procedural obstacles for communities to access water for**

**both livelihood and commercial uses are critical for ensuring that Indigenous Peoples, Afro-descendants, local communities, and the women within these communities have equitable and affordable access to sufficient water for livelihoods purposes and economic advancement.** Such approaches are further supported by a recognition of communities' need for water to realize not only the human right to water as defined narrowly to include domestic and basic human needs, but also the whole suite of socio-economic human rights that depend on the right to water, including the rights to food, health, and quality of life, among others.<sup>166</sup>

**3. The ability of Indigenous Peoples, Afro-descendants, and local communities to protect and preserve the freshwater resources they depend on through rights of exclusion, external enforcement, and due process is inadequately supported by existing national laws comprising CWTRs.**

While many of the governance rights assessed by this study are widely recognized across CWTRs, communities' legal right to enforce their rules and decisions against third parties is extremely limited. External enforcement (the ability of communities to enforce their own rules against third parties outside the community) is the least frequently recognized CWTR-specific right captured by this analysis, with only 7 (18 percent) of the 39 CWTRs identified recognizing communities' external enforcement rights and 1 additional CWTR (3 percent of 39 CWTRs) recognizing external enforcement rights on a case-by-case basis. Thus, **79 percent (31) of 39 CWTRs fail to provide recourse for communities to enforce internal rules against third parties who breach community-based rules and management decisions, encroach on their territories, or otherwise interfere with community freshwater rights.** This places communities at a disadvantage, subjecting them to the willingness of public officials to protect their rights—a potentially resource-intensive process requiring communities to have knowledge of and meaningful access to the formal legal system.

**Exclusion rights, on the other hand, present a largely untapped—yet still underrecognized—opportunity for communities to protect their water rights.** The treatment of water as an essentially public good notwithstanding, more than 60 percent (24) of the 39 CWTRs assessed have established ways for communities to exclude third parties from using and impacting their freshwater resources, and a further 8 CWTRs (21 percent of the 39 CWTRs analyzed) recognize such rights on a case-by-case basis. Exclusion rights mainly exist where those water resources are appurtenant to lands or forests over which communities have vested rights, such that 83 percent (20) of the 24 CWTRs that adequately recognize exclusion rights have a land-water nexus—though in practice not all communities are capable of articulating or leveraging such rights and they are often poorly respected.

Where exclusion and external enforcement rights are either unrecognized or disrespected, the ability of communities to take advantage of due process protections becomes increasingly important. All 39 CWTRs assessed in this study provide some form of prior notification, consultation, or appeal rights to communities within domestic contexts. However, consultation and appeal processes can be complex and rely on public officials (or other facilitating stakeholders) to make them more than perfunctory in practice. Indigenous Peoples, Afro-descendants, local communities, and particularly the women within those communities often require substantial support to both understand and effectively realize their rights to procedural due process when their freshwater rights are threatened. Due process protections require a high level of commitment from government or private third parties to ensure information is provided to communities in a manner that is timely, accessible, and understandable to community members and that opportunities for consultation are accessible, meaningful, and take the community's feedback into consideration. The ability to meaningfully participate in such processes is even harder for women within communities who often face social or cultural pressure to avoid voicing their opinions or lack the necessary means or capacity (travel time, literacy/education levels, or financial resources) to engage effectively. Moreover, while communities' rights to due process within domestic contexts are protected across all CWTRs, just 2 (13 percent) of the 15 countries analyzed recognize communities' due process rights within transboundary contexts.

When these findings are considered alongside the technical nature of most due process procedures (including prior notice, consultation, and appeal processes in both the domestic and transboundary contexts) and communities' well-documented need for legal assistance during water-related engagements with both public and private actors,<sup>167</sup> **this analysis suggests a heightened need for accessible legal services that support communities in meaningfully availing themselves of their recognized**

**freshwater rights.** By supporting communities in adjudicating cases, negotiating with private and public actors on their behalf, and supporting the development of new provisions and regulations where legislative gaps persist, legal service providers could facilitate an increased role for the courts in clarifying and expanding the scope of communities' legally recognized water tenure, as well as enforcing their existing rights. **Courts also have a critical role to play in protecting community water tenure rights during appeals of third-party interference with community freshwater rights, which in turn creates opportunities for lawyers, civil society, and other advocates supporting communities to take advantage of existing protections to better defend, articulate, and protect community water tenure rights.** In Colombia, for example, the Constitutional Court has articulated a theory of "biocultural rights" as applied in the Atrato River basin to recognize the autonomous guardianship of communities over their natural resources and their resulting right to exclude private parties from polluting waters within Indigenous, Afro-Colombian, and peasant community territories where the activities of the third party would violate those biocultural rights or the human right to water.<sup>168</sup> The Supreme Court of Justice in Mexico enforced ILO Convention No. 169 in a case in which the Yaqui tribe contested a decision by the government to build the Independence Aqueduct to divert waters of the Yaqui River into the Sonora River to meet municipal demand. The Court found that prior consultation procedures have to be fully implemented by the government in accordance with criteria set by the Inter-American Court of Human Rights; however, the case also reaffirms federal agencies' discretion in making a final decision regarding water allocation and infrastructure construction, provided that such decisions abide by due process requirements.<sup>169</sup> These cases demonstrate the important role that courts can play in articulating the scope of, and enforcing the procedural and substantive freshwater rights of, communities, as well as the human right to water as a legal mechanism for communities to protect their water tenure rights.

In some instances, however, courts can also undermine community protections. For example, India's Supreme Court has ordered the eviction of more than a million forest dwellers whose claims under the Forest Rights Act have been rejected, despite the ongoing verification processes for the rejections in many instances. While the Court ultimately stayed this ruling for a period of time, the case has not yet been decided.<sup>170</sup> Clearly, efforts to expand the breadth of community freshwater rights and level the playing ground for communities who are, in many cases, pitted against private sector interests remains a struggle. This is particularly the case for transboundary basins; only 2 of 15 countries analyzed adequately provide a comprehensive set of due process rights that can protect communities' rights when decisions or proposed developments in countries sharing that basin could impact communities' freshwater tenure rights.

Finally, **the inadequate protection given to the legal entitlements essential to the protection of community waters underscores the urgent need for companies to consistently develop and implement robust corporate social responsibility and due diligence standards from the inception of projects with potential impacts on the freshwater rights of Indigenous Peoples, Afro-descendants, and local communities.** Given the insufficient level of legal protections currently afforded to community rights of exclusion, enforcement, and due process, companies' compliance with existing laws may be insufficient to satisfy industry standards, international guidelines on corporate responsibility, and the human right to water. Thus, if companies' internal requirements are weak, corporate activities impacting community waters are more likely to jeopardize the health, food security, and advancement of communities<sup>171</sup> while also damaging companies' reputations and associated financial viability.<sup>172</sup>

**4. The dearth of gender-sensitive legal protections within CWTRs both exacerbates discriminatory cultural norms that limit women's rights to community freshwater resources and undermines existing community practices that empower women, paralleling the inadequate recognition of Indigenous, Afro-descendant, and community women's rights to community lands and forests identified in other global analyses.<sup>173</sup>**

All 15 countries assessed in this study are parties to the Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW)<sup>174</sup> and women's critical role in water management and governance has been repeatedly recognized in several high-level policy statements. Despite this, only one-third (13 CWTRs found across Colombia, India, Kenya, Liberia, Nepal, and Zambia) of the 39 CWTRs analyzed acknowledge Indigenous, Afro-descendant, and community women's rights to use and/or govern freshwater resources. Critically, of the 13 legal frameworks that explicitly protect women's rights to participate in freshwater governance, 8 protect women's rights to participate in community-

based decision-making processes pertaining to the management of community *land* or *territories* that are interpreted to include rights to govern freshwater, whereas only 5 frameworks explicitly recognize women's rights to govern community *water* resources. **The pervasive nature of the land-water nexus can thus create an opportunity for women within Indigenous, Afro-descendant, and local communities, in particular, to benefit from legal reforms reflecting a more integrated approach to communities' land and water tenure—provided that these reforms also safeguard women's specific freshwater needs and priorities.** However, when study results are taken together with global tenure analyses highlighting the failure of LMICs to effectively recognize women's rights to govern and inherit rights to community forests and other lands,<sup>175</sup> evidence indicates that the natural resource rights of Indigenous, Afro-descendant, and community women lag significantly behind those of their broader communities in most instances.

**The lack of specific protections for Indigenous, Afro-descendant, and community women's water governance rights also exacerbates gender inequalities in community decision-making processes and due process procedures.** Moreover, only 3 (23 percent) of these 13 CWTRs (including all 3 CWTRs in Zambia) recognize women's specific water use rights,<sup>176</sup> and such omissions suggest that **rural women's unique responsibilities and priorities concerning household level water supply and food security, management, and cultural/religious practices—as well as their specific hygiene needs—are not being considered by lawmakers who regulate their everyday lives.** The failure of states to specifically recognize the water rights of women within Indigenous, Afro-descendant, and local communities must be considered in light of a broader context of entrenched gender discrimination that characterizes the experience of the majority of Indigenous, Afro-descendant, and community women across the countries assessed, as well as the differentiated burdens, needs, and priorities that women often have with respect to water resources stewarded under community-based tenure systems. Rural women are disproportionately impacted by a range of mounting, pervasive threats to community freshwater tenure, including: insufficiently recognized and implemented water rights; onerous procedural requirements on those rights that place water permits out of communities' reach; climate change-related natural disasters; and infrastructure developments within community territories that threaten their health, physical safety, and livelihoods. Given this context, gender-blind legal protections are particularly unlikely to result in positive outcomes for Indigenous, Afro-descendant, and community women.

## Chapter 6: Recommendations

---

This study demonstrates that national laws and regulations commonly provide a basis for Indigenous Peoples', Afro-descendants', and local communities' freshwater rights, especially where these rights are tied to legally recognized community land or forest rights. However, even where a land-water nexus exists, legislation supporting community-based resource rights is rarely harmonized or integrated across sectors. Inconsistencies or even contradictions across sectoral laws can not only create onerous and duplicative procedural requirements, but can undermine recognized community water tenure rights. In the absence of integrated tenure-based approaches to community land, forest, and freshwater governance, efforts to secure and protect the freshwater rights of Indigenous Peoples, Afro-descendants, and local communities will likely remain limited, but evidence shows that building consensus around the concept of community-based water tenure is both possible and warranted.

Development of water-specific tenure governance standards and guidance that are aligned with and applied in concert with other sectoral guidance for countries (such as the VGGT) could provide instrumental support for countries' recognition and realization of water tenure rights. Such guidance would also help inform corporate due diligence efforts to ensure investments respect all community tenure rights—reducing company and investor exposure to financial and reputational risk.

The following recommendations outline the steps that should be taken by all stakeholders—including governments, corporations and investors, civil society organizations (CSOs), international organizations, and advocates—as part of efforts to recognize and protect the freshwater tenure rights of Indigenous Peoples, Afro-descendants, local communities, and the women within those communities.

All stakeholders should:

1. Promote a shared understanding of community-based water tenure in the context of other resource tenure rights across sectors at both national and international levels.
2. Improve coordination across the water, forest, land, and gender sectors to establish and strengthen comprehensive CWTRs that legally recognize the bundle of rights necessary to achieve the water security and livelihood needs of Indigenous Peoples, Afro-descendants, and local communities—including women within those communities. To this end, stakeholders should:
  - a. Enact and implement gender-sensitive policy and legislative reforms that promote an integrated view of community-based resource tenure rights and is aligned with the priorities of Indigenous Peoples, Afro-descendants, local communities, and women within these communities;
  - b. Eliminate, reduce, or tailor procedural and administrative requirements that hinder the realization of communities' freshwater rights, without undermining national water policy goals;
  - c. Strengthen legal protections for Indigenous, Afro-descendant, and local community women's water use and governance rights in ways that address the linkages between their land and water tenure and that provide them with expanded livelihoods and economic opportunities.
3. Empower Indigenous Peoples, Afro-descendants, local communities, rural women, and other stakeholders to understand the existing suite of rights available to protect community-based freshwater tenure; implement and enforce those existing rights; and advocate for additional reforms that address remaining gaps in policy and legislation concerning community-based water tenure.
4. Develop and enforce explicit and meaningful legal protections for the safety of environmental and water defenders advocating on behalf of Indigenous Peoples', Afro-descendants', and local communities' water tenure rights.

In collaboration with the international community, dedicated CSOs, and communities, government ministries, agencies, and lawmakers working across the water, land, forest, gender, and other related sectors should:

1. Accelerate the adoption of integrated, tenure-based approaches encompassing Indigenous Peoples', Afro-descendants', and local communities' full set of terrestrial and freshwater resources through gender-sensitive legal recognition and realization of their freshwater, forest, and land rights;



2. Actively support explicit recognition of communities' rights to freshwater resources by:
  - a. Explicitly recognizing the human right to water in national legislation as a basis for promoting and protecting community-based freshwater rights;
  - b. Amending or entering into international water governance agreements that explicitly recognize communities' due process rights in a transboundary context;
  - c. Reforming and supporting the implementation of national laws to ensure that communities have rights to enforce their internal water rules against third parties;
  - d. Reforming water and related natural resource legislation to prioritize specific water uses by Indigenous Peoples, Afro-descendants, and local communities, and potentially other vulnerable persons, over those of other rightsholders, where appropriate;
3. Support Indigenous Peoples', Afro-descendants', and local communities' ability to pursue a variety of community enterprises requiring freshwater—including through recognition of rights to use water for commercial purposes under long-term or perpetual commercial use permits, where these are required.
  - a. Reduce or revise onerous or duplicative procedural requirements that impede the realization of community-based freshwater rights recognized under national law. In particular, expand the scope of water permitting exemptions, and/or create new regulatory mechanisms that reduce administrative and financial burdens on Indigenous Peoples, Afro-descendants, and local communities, and ensure that communities' rights to use water for domestic, livelihood, and economic development purposes are perpetually recognized and easily exercised by communities.
4. Explicitly recognize and promote the rights of women within Indigenous, Afro-descendant, and local communities to water use, governance, and due process through statutory provisions that protect those rights in meaningful ways, such as through the inclusion of quota requirements for women's participation in community-based decision-making bodies.
5. Prioritize the implementation of existing but unrealized statutory rights that are essential to the management and protection of community freshwater resources.

International community and CSOs should:

1. Promote tenure-based approaches sensitive to the bundle of both land and water tenure rights as part of broader efforts to secure and protect the land, territorial, and water rights of Indigenous Peoples, Afro-descendants, and local communities, with special attention to the rights of women within these communities.
2. Identify opportunities for increased cooperation, dialogue, and learning among land, forest, and water-oriented CSOs, international organizations, and advocates to promote more integrated approaches for implementing land and water tenure rights.
  - a. Support the legal reforms outlined above with technical assistance, targeted messaging campaigns, and adaptive capacity-building interventions supporting Indigenous Peoples, Afro-descendants, and local communities.
  - b. Increase legal support for Indigenous Peoples, Afro-descendants, and local communities to enforce their existing land and water tenure rights, including assistance in enforcing their rights to due process and FPIC. This should include education and capacity support for judges aimed at better equipping them to support communities and facilitate just outcomes.

Corporations and Investors should:

1. Commit to and apply the highest level of corporate social responsibility and due diligence in respecting the statutory and customary land and water tenure rights of Indigenous Peoples, Afro-descendants, and local communities, including the specific rights of women within these communities, through:
  - a. Compliance with national legal requirements and international safeguard policies;
  - b. Respect for communities' and women's rights to FPIC as defined in the VGGT, ILO Convention No. 169, and UNDRIP; and
  - c. Development or revision of internal due diligence standards and procedures that incorporate respect for community-based water tenure rights where operations are ongoing or planned.
2. Ensure corporate Environmental, Social, and Governance compliance staff and preferred service providers are trained on and fully aware of both the concept of community-based water tenure and the specific rights of communities.



3. Thoroughly assess project portfolios and supply chains to determine compliance with international standards and address any and all legacy issues or compliance gaps related to recognition and protection of communities' water tenure rights.
4. Develop benefit sharing plans consistent with payment for ecosystem services (PES) approaches in situations where water stewardship by Indigenous Peoples, Afro-descendants, and local communities—including Indigenous, Afro-descendant, and community women—provides tangible benefits to companies and investors.
5. Seek the assistance of CSOs, government ministries, and experts in community freshwater rights to take actions in furtherance of the above recommendations.

## Annex 1: International Law

Instrument	Provisions
<b>International Covenant on Economic, Social and Cultural Rights, General Comment No. 15 (2002)</b>	<p><i>Para. 2:</i> "The human right to water entitles everyone to sufficient, safe, acceptable, physically accessible and affordable water for personal and domestic uses."</p> <p><i>Para. 6:</i> "Water is <b>required for a range of different purposes, besides personal and domestic uses</b>, to realize many of the Covenant rights [including the human rights to adequate food, health, livelihoods, and to take part in cultural life] ... Nevertheless, priority in the allocation of water must be given to the right to water for personal and domestic uses."</p>
<b>United National General Assembly Resolution A/Res/64/292 (2010)</b>	<p><i>Para. 1:</i> "Recognizes the right to <b>safe and clean drinking water</b> and sanitation as a human right that is <b>essential for the full enjoyment of life and all human rights</b>."</p>
<b>International Labour Organization (ILO) Indigenous and Tribal Peoples Convention No. 169 (1989)</b>	<p><i>Art. 15 (1):</i> "The rights of the peoples concerned to the natural resources pertaining to their lands [including the concept of "territories" per Art. 13(2)] shall be specially safeguarded. These rights include the right of these peoples to <b>participate in the use, management and conservation</b> of these resources."</p> <p><i>Art. 15(2):</i> "In cases in which the State retains the ownership of ... rights to other resources pertaining to lands, governments shall establish or maintain procedures through which they shall <b>consult</b> these peoples ... before undertaking or permitting any programmes for the exploration or exploitation of such resources pertaining to their lands. The peoples ... shall <b>receive fair compensation</b> for any damages which they may sustain as a result of such activities."</p>
<b>United Nations Declaration on the Rights of Indigenous Peoples (2007)</b>	<p><i>Indigenous Peoples have the right to:</i></p> <p><i>Art. 25:</i> "... [M]aintain and strengthen their distinctive spiritual relationship with their traditionally owned or otherwise occupied and used lands, territories, [and] <b>waters</b> ..."</p> <p><i>Art. 26(2):</i> "... [O]wn, use, develop and control the lands, territories and resources that they have [traditionally owned, occupied, used or otherwise acquired]."</p> <p><i>Art. 28(1):</i> "... [R]edress ... or, when this is not possible, <b>just, fair and equitable compensation</b>, for the lands, territories and resources which they have traditionally owned or otherwise occupied or used, and which have been confiscated, taken, occupied, used or damaged without their free, prior and informed consent."</p> <p><i>Art. 32(1):</i> "... [D]etermine and develop priorities and strategies for the development or use of their lands or territories and other <b>resources</b>."</p> <p><i>States shall:</i></p> <p><i>Art. 26(3):</i> "... [G]ive <b>legal recognition and protection</b> to these lands, territories and resources ... <b>with due respect to the customs, traditions and land tenure systems of the indigenous peoples concerned</b>."</p> <p><i>Art. 32(2):</i> "... [C]onsult and cooperate in good faith with the indigenous peoples concerned through their own representative institutions in order to obtain their <b>free and informed consent prior to the approval of any project</b> affecting their lands or territories and other resources, particularly in connection with the development, utilization or exploitation of ... <b>water</b> or other resources."</p>
<b>UN Convention on Biological Diversity Aichi Biodiversity Targets (2010)</b>	<p><i>Target 14:</i> "By 2020, ecosystems that provide essential services, including services related to water ..., are restored and safeguarded, taking into account the needs of women, indigenous and local communities, and the poor and vulnerable."</p>
<b>Convention on the Elimination of All Forms of Discrimination Against Women (1981)</b>	<p><i>Art. 14(2):</i> "States Parties shall take all appropriate measures to <b>eliminate discrimination against women in rural areas in order to ensure, on a basis of equality of men and women</b>, that they <b>participate in and benefit from</b> rural development and ... shall ensure to such women the right: (f) <b>To participate in all community activities</b> ... (h) To enjoy adequate living conditions, particularly in relation to housing, sanitation, electricity and water supply, transport and communications."</p>
<b>UN Convention on the Rights of the Child (1989)</b>	<p><i>Art. 24 (2):</i> "States Parties shall pursue full implementation of [the right to health] and, in particular, shall take appropriate measures: ... (c) To combat disease and malnutrition ... through the provision of adequate nutritious foods <b>and clean drinking-water</b>, taking into consideration the dangers and risks of environmental pollution."</p>

Instrument	Provisions
<b>International Finance Corporation (IFC) Performance Standards on Environmental and Social Sustainability (2012)</b>	<p>Business actors must:</p> <p>Identify disadvantaged or vulnerable individuals and groups that may be “directly and differentially or disproportionately” affected by the project (including women) and “propose and implement differentiated measures so that adverse impacts do not fall disproportionately on them and they are not disadvantaged in sharing development benefits and opportunities” (Performance Standard 1, para. 12).</p> <p><b>Inclusively engage and informatively consult with Indigenous Peoples and/or local communities, including women</b>, when assessing and managing environmental and social risks (Performance Standard 1, paras. 30–31), when engaging in project-related land acquisition and involuntary resettlement processes (Performance Standard 5, para. 10), and when abiding by <b>FPIC</b> principles in the context of projects involving Indigenous Peoples (Performance Standard 7, para. 14).</p>
<b>United Nations Convention on the Non-navigational Uses of International Watercourses (entered into force, 2014)</b>	<p><i>Art. 7(1):</i> “Watercourse States shall, in utilizing an international watercourse in their territories, take all appropriate measures to prevent causing of significant harm to other watercourse States.”</p> <p><i>Art. 7(2):</i> “Where significant harm nevertheless is caused to another watercourse State, the States whose use causes such harm shall, in the absence of agreement to such use, take all appropriate measures ... to eliminate or mitigate such harm ...”</p> <p><i>Art. 32:</i> “... [A] watercourse State shall not discriminate on the basis of nationality or residence or place where the injury occurred, in granting ... access to <b>judicial or other procedures</b>, or a right to <b>claim compensation</b> or other relief in respect of significant harm caused by such activities carried on in its territory.”</p>
<b>Convention on Environmental Impact Assessment in a Transboundary Context (entered into force 1997)</b>	<p><i>Art. 2(6):</i> “The Party of origin shall provide... an opportunity to the public in the areas likely to be affected to <b>participate in relevant environmental impact assessment procedures</b> regarding proposed activities and shall ensure that the opportunity provided to the public of the affected Party is equivalent to that provided to the public of the Party of origin.”</p> <p><i>Art. 3(8):</i> “The concerned Parties shall ensure that the public of the affected Party in the areas likely to be affected be informed of, and be provided with possibilities for making comments or objections on, the proposed activity, and for the transmittal of these comments or objections to the competent authority of the Party of origin, either directly to this authority or, where appropriate, through the Party of origin.”</p> <p><i>Art. 4(2):</i> “The concerned Parties shall arrange for distribution of the documentation to the authorities and the public of the affected Party in the areas likely to be affected and for the submission of comments to the competent authority of the Party of origin ... within a reasonable time before the final decision is taken on the proposed activity.”</p>
<b>Pulp Mills on the River Uruguay (Argentina v. Uruguay), Judgment of International Court of Justice (April 20, 2010)</b>	<p><i>Para 204:</i> “... [I]t may now be considered a requirement under general international law to <b>undertake an environmental impact assessment</b> where there is a risk that the proposed industrial activity may have a significant adverse impact in a transboundary context, in particular, on a <b>shared resource</b>.”</p> <p><i>Para 205:</i> “... [G]eneral international law [does not] specify the scope and content of an environmental impact assessment ... Consequently, it is ... for each State to determine in its domestic legislation, or in the authorization process for the project, the specific content of the environmental impact assessment required in each case, having regard to the nature and magnitude of the proposed development and its likely adverse impact on the environment as well as to the need to exercise due diligence in conducting such an assessment ... [and] prior to the implementation of the project.”</p>
<b>Sustainable Development Goals (2016)</b>	<p><i>Goal 3.9:</i> “By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination.”</p> <p><i>Goal 5.1:</i> “End all forms of discrimination against all women and girls everywhere.”</p> <p><i>Goal 6.1:</i> “By 2030, achieve universal and equitable access to safe and affordable <b>drinking water for all</b>.”</p> <p><i>Goal 6.6:</i> “By 2020, <b>protect and restore water-related ecosystems ...</b>”</p> <p><i>Goal 6.B:</i> “Support and strengthen the <b>participation of local communities</b> in improving <b>water and sanitation management</b>.”</p> <p><i>Goal 15.1:</i> “By 2020, ensure the <b>conservation, restoration and sustainable use</b> of terrestrial and <b>inland freshwater ecosystems and their services, in particular forests, wetlands, mountains and drylands</b>, in line with obligations under international agreements.”</p>

Instrument	Provisions
<b>Voluntary Guidelines on the Responsible Governance of Tenure of Land, Fisheries and Forests in the Context of National Food Security (2012)</b>	<p><i>Preface:</i> “It is important to note that responsible governance of tenure of land, fisheries and forests is inextricably linked with access to and management of other natural resources, such as <b>water</b> and mineral resources ...”</p> <p>1.1: “These Voluntary Guidelines seek to improve governance of <b>land [as defined in the national context]</b>, fisheries and forests ...”</p> <p>3.2: “Non-state actors including business enterprises have a responsibility to <b>respect human rights and legitimate tenure rights</b> ... [and] should act with due diligence to avoid infringing on the human rights and legitimate tenure rights of others ...”</p> <p>5.3: “States should ensure that <b>policy, legal and organizational frameworks</b> for tenure governance recognize and respect ... legitimate tenure rights <b>including legitimate customary tenure rights that are not currently protected by law</b>; and facilitate, promote and protect the exercise of tenure rights ... States should provide frameworks that are non-discriminatory and <b>promote social equity and gender equality</b> ...”</p> <p>5.4: “States should consider the particular obstacles faced by women and girls with regard to tenure and associated tenure rights, and take measures to ensure that legal and policy frameworks provide adequate protection for women and that laws that recognize women’s tenure rights are implemented and enforced ...”</p> <p>7.1: “When States recognize or allocate tenure rights ... they should establish ... safeguards to avoid infringing on or extinguishing tenure rights of others, including legitimate tenure rights that are not currently protected by law. In particular, safeguards should protect women and the vulnerable who hold subsidiary tenure rights ...”</p> <p>9.1: “State and non-state actors should acknowledge that land, fisheries and forests have <b>social, cultural, spiritual, economic, environmental and political value</b> to indigenous peoples and other communities with customary tenure systems.”</p> <p>9.3: “In the case of indigenous peoples, States should meet their relevant obligations [under national and international law] and voluntary commitments to protect, promote and implement human rights ...”</p> <p>9.4: “States should provide appropriate recognition and protection of the legitimate tenure rights of indigenous peoples and other communities with customary tenure systems, consistent with existing obligations under national and international law ...”</p> <p>22.1: “... States should ensure that all actions [related to land, fisheries and forests which traverse national boundaries] are consistent with their existing obligations under national and international law, and with due regard to voluntary commitments under applicable regional and international instruments. In States where transboundary matters related to tenure rights arise, parties should work together to protect such tenure rights, livelihoods and food security of the migrating populations while on their respective territories.”</p>

## Annex 2: Freshwater Tenure Methodology: Legal Indicators and Assessment Criteria

✓ = Yes   ✗ = No   C = Case-by-Case   N/A = Not Applicable

### National-Level Threshold Questions



#### Human Right to Water?

Does national law recognize the human right to water?

✓ or ✗



#### Transboundary Due Process?

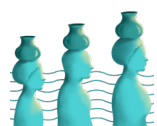
Where decisions or proposed developments in a given country related to a transboundary watercourse could impact the freshwater rights of users in another country sharing that watercourse, does international law require that all potentially impacted water users are notified in advance and consulted with respect to these decisions or proposed developments? In addition, do all water users have the right to judicially or administratively appeal decisions and actions that (potentially) impact water users' freshwater rights?

✓ or ✗ or N/A

✓ = Yes   ✗ = No   C = Case-by-Case

Three CWTR-level threshold questions that are intended to provide critical context within which the use, governance, and/or exclusion rights legally afforded to each CWTR should be understood. These three questions pertain to the recognition of:

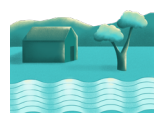
### CWTR-Level Threshold Questions



#### Customary Right to Water?

Within each CWTR analyzed, does national law recognize communities' customary water rights, laws, traditions and/or practices?

✓ or ✗



#### Land-Water Nexus?

Within each CWTR analyzed, is the recognition of any community water rights dependent on their land and/or forest rights?

✓ or ✗



#### Women's Right to Community Waters?

Within each CWTR analyzed, does national law explicitly and affirmatively acknowledge women's water rights to use and/or govern freshwater resources held by Indigenous Peoples, Afro-descendants, local communities, and/or other water user groups?

✓ or ✗ or C

## Legal Indicators



### Cultural/ Religious Use

Does national law recognize community-based rights to use freshwater for cultural and/or religious purposes?

✓	The law guarantees communities' rights to use water for cultural and/or religious purposes, for an unlimited duration.
■	The law guarantees communities' rights to use water for cultural and/or religious purposes, for a limited time period.
✗	The law does not guarantee communities' rights to use water for cultural and/or religious purposes.
C	National law only recognizes the right in question for a portion of circumstances covered by the CWTR.



### Domestic Use

Does national law recognize community-based rights to use freshwater for domestic purposes (i.e., those satisfying basic human needs, such as drinking water, washing, food preparation, and sanitation necessary for subsistence/survival)?

✓	The law guarantees communities' rights to use water for domestic purposes, for an unlimited duration.
■	The law guarantees communities' rights to use water for domestic purposes, for a limited time period.
✗	The law does not guarantee communities' rights to use water for domestic purposes.



### Livelihood Use

Does national law recognize community-based rights to use freshwater for livelihood purposes (i.e., small-scale/household-level productive uses such as irrigation for agriculture, fisheries, brickmaking, or similar) that satisfy needs beyond subsistence/survival, but that do not qualify as "commercial purposes" as defined below?

✓	The law guarantees communities' rights to use water for livelihood purposes, for an unlimited duration.
■	The law guarantees communities' rights to use water for livelihood purposes, for a limited time period.
✗	The law does not guarantee communities' rights to use water for livelihood purposes.



### Commercial Use

Does national law recognize community-based rights to use freshwater for commercial purposes, where "commercial purposes" is defined as the use of water as an input for generating income at a level higher than is necessary to maintain livelihoods?

✓	The law guarantees communities' rights to use water for commercial purposes, for an unlimited duration.
■	The law guarantees communities' rights to use water for commercial purposes, for a limited time period.
✗	The law does not guarantee communities' rights to use water for commercial purposes.



### Transferability

Does national law recognize communities' right to sell, lease, or otherwise transfer any of their rights to freshwater?

✓	National law guarantees a transferability right.
✗	National law does not guarantee a transferability right.
C	National law only recognizes the right in question for a portion of circumstances covered by the CWTR.



### Exclusion

Under national law, do communities have the right to exclude any third parties (such as individuals, groups, or other entities) from freshwater resources?

✓	The law guarantees communities the right to exclude third parties from accessing and using freshwater resources.
✗	The law does not guarantee an exclusion right.
C	National law only recognizes the right in question for a portion of circumstances covered by the CWTR.



### Rulemaking (Governance)

Does national law recognize communities' right to establish rules determining who can access/use freshwater and freshwater resources under the communities' control?

✓	The law guarantees the right to rulemaking with respect to freshwater resources.
✗	The law does not guarantee this right.



### Planning and Management (Governance)

Does national law recognize communities' right to make decisions pertaining to the use(s) and protection of water/water resources, water allocation, and/or water infrastructure (i.e., planning), and to implement plans concerning freshwater water use, development, protection, allocation, and water infrastructure, in accordance with applicable community-based rules (i.e., management)?

✓	The law guarantees communities' rights concerning freshwater resource planning and management.
■	The law guarantees either planning or management rights regarding freshwater resources, but not both.
✗	The law does not guarantee either right.



### Internal Dispute Resolution (Governance)

Does national law recognize communities' right to utilize community-based mechanisms/rules to resolve internal freshwater conflicts?

✓	The law guarantees communities the right to settle internal disputes related to water according to community-based laws/rules.
✗	The law does not guarantee this right.
C	National law only recognizes the right in question for a portion of circumstances covered by the CWTR.



### External Enforcement (Governance)

Does national law recognize communities' right to impose penalties on external actors who violate community-based rules?

✓	The law guarantees communities' right to impose penalties on external actors who violate community-based rules.
✗	The law does not guarantee communities' right to impose penalties on external actors who violate community-based rules.
C	National law only recognizes the right in question for a portion of circumstances covered by the CWTR.



### Domestic Due Process (Prior Notice, Consultation and Appeal)

Does national law require that communities are notified in advance and consulted when decisions or proposed developments related to a freshwater resource within that focus country could impact their freshwater rights? Does the national law of the same focus country recognize the rights of communities within that country to judicially challenge the government's decisions/actions to extinguish all or some of communities' freshwater rights?

✓	National law guarantees communities' right to prior notice and consultation regarding decisions or proposed developments within the focus country that could impact communities' freshwater rights, as well as communities' right to judicially appeal the government's decisions/actions to extinguish all or some of communities' freshwater rights.
■	National law guarantees some but not all of the following rights: prior notice and consultation regarding proposed developments or decisions within the focus country that could impact community freshwater rights, and rights to appeal the governments' decisions/actions to extinguish all or some of communities' freshwater rights.
✗	National law does not guarantee rights of prior notice, consultation, or appeal.



### Domestic Compensation

In the context of domestic situations involving the potential revocation of freshwater rights, does national law recognize that communities are entitled to compensation from the government and any private entities that are responsible for infringing upon or extinguishing their freshwater rights?

✓	National law enables communities to seek and receive compensation for a loss or infringement of their freshwater rights caused by the government or a private entity.
■	National law enables communities to seek compensation for a loss or infringement of their freshwater rights caused by either the government or a private entity.
✗	National law does not guarantee any compensation right.
C	National law only recognizes the right in question for a portion of circumstances covered by the CWTR.



## Annex 3: Legislation Cited

Country	Legal Instruments, Court Cases, Select Regional Treaties and Agreements, and Secondary Sources	Year Enacted or Ratified (Revised/Amended)
Bolivia	Constitución Política del Estado de 2009	2009
	Ley No. 1257, 11 de julio de 1991	1991
	Ley No. 1333 - Ley del 27 de abril de 1992 - Ley del Medio Ambiente	1992
	Ley Forestal No. 1700 - Ley de 12 de julio de 1996	1996
	Ley No. 1715 - Ley de 18 de Octubre de 1996 - Ley del Servicio Nacional de Reforma Agraria	1997
	Ley No. 2066 - Ley de Prestación y utilización de Servicios de Agua Potable y Alcantarillado Sanitario	2000
	Ley No. 2878 - Ley de 8 de Octubre de 2004 - Ley de promoción y apoyo al sector riego	2004
	Ley No. 3545 - Ley de 28 de noviembre de 2006 - Modificación de la Ley No. 1715 Reconducción de la Reforma Agraria	2006
	Ley No. 3897 del 26 Junio 2008 - Modifica el Artículo Único de la Ley No. 3760 de 7 de noviembre de 2007, que eleva a rango de Ley los 46 artículos de la Declaración de las Naciones Unidas, sobre los Derechos de los Pueblos Indígenas, aprobada en el 61° Período de Sesiones de la Asamblea General de la Organización de las Naciones Unidas (ONU), realizada en Nueva York el 13 de septiembre de 2007	2008
	Ley No. 031 - Ley Marco de Autonomías y Decentralización 'Andrés Báñez'	2010
	Ley No. 073 - Ley de deslinde jurisdiccional	2010
	Ley de otorgación de personalidades jurídicas, 19 de marzo de 2013	2013
	Decreto Supremo No. 22373 del 21 de Noviembre de 1989	1989
	Decreto Supremo No. 27572 de 17 de junio de 2004	2004
	Decreto Supremo No. 28818 de 2 de agosto de 2006 - Reglamento a la Ley No. 2878 de Promoción y Apoyo al Sector Riego para la Producción Agropecuaria y Forestal, Reconocimiento y Otorgación de Derechos de Uso y Aprovechamiento de Recursos Hídricos para el Riego	2006
	Decreto Supremo No. 28887 de 18 de octubre de 2006	2006
	Decreto Supremo No. 29215 de 2 de agosto de 2007 - Reglamento de la Ley No. 1715 del Servicio Nacional de Reforma Agraria, Modificada por la Ley No. 3545 de Reconducción Comunitaria de la Reforma Agraria	2007
	Decreto Supremo No. 727, 6 de diciembre de 2010	2010
	Resolución Administrativa Regulatoria SISAS No. 124/2007	2007
	Tratado de la Cuenca del Plata	1970
	Acuerdo para el Aprovechamiento Múltiple de los Recursos de la Alta Cuenca del Río Bermejo y del Río Grande de Tarija	1995
	Arrazola Mendivil, Walter Javier. 2010. Situación actual de los Derechos de los Pueblos Indígenas del Oriente. CABI, Santa Cruz; Autoridad Binacional Autónoma del Sistema Hídrico del Lago Titicaca. "Componente: Componente: Gestión de Recursos Hídricos." Accessed 2018; Cafolla, Francesca, Carlo Krusich, Eleonora Simeone. n.d. Competitive Funds in Peri-urban Areas of Cochabamba, Bolivia: A financing tool to strengthen community water committees. Case Study in "Water Commons, Water Citizenship and Water Security: Revolutionizing Water Management and Governance for Rio + 20 and Beyond"; Fraticelli, Marta and Michel Merlet. 2010. "New Communities' and Peasants' Strategies in Bolivian Amazon. Threats and Hopes for a Sustainable Use of Forest Resources." Presentation at the conference on Taking Stock of Smallholders and Community Forestry, Montpellier, France, March 24-26, 2010; Ministerio de Medio Ambiente y Agua. 2011. Enfoque Sectorial Amplio para Agua y Saneamiento en Áreas Rurales con Población Menor a 2.000 Habitantes; Palma, Eduardo Dávalos. 2010. Tierras Comunitarias de Origen en Bolivia; Salgado Moreno, Jorge Manuel. 2013. Extractivismos en pugna: visiones y derechos en el norte amazónico de Bolivia. Fundación Tierra; TIERRA - Regional Altiplano. 2014. Estatuto Organico y Reglamento Interno Comunidad Uricachi Grande. La Paz; United Nations Educational, Scientific and Cultural Organization (UNESCO). 2006. Water and indigenous peoples. Edited by Rutgerd Boelens, Moe Chiba, and Douglas Nakashima. Knowledges of Nature 2, UNESCO: Paris.	

■ = Africa ■ = Asia ■ = Latin America

Country	Legal Instruments, Court Cases, Select Regional Treaties and Agreements, and Secondary Sources	Year Enacted or Ratified (Revised/Amended)
Cambodia	The Constitution of the Kingdom of Cambodia	1993 (2008)
	Law on Environmental Protection and Natural Resource Management	1996
	Land Law of 2001 (NS/RKM/0801/14)	2001
	Law on Forestry (NS/RKM/0802/016)	2002
	Law on Water Resources Management of the Kingdom of Cambodia	2007
	Protected Areas Law (No. NS/RKM/0208/007)	2008
	Sub-decree on Environmental Impact Assessment Process (No. 72 ANRK/BK/August 11, 1999)	1999
	Sub-Decree on Community Forestry Management (No. 79 Or Nor Krar. Bor Kar)	2003
	Sub-Decree on Procedures of Registration of Land of Indigenous Communities (No. 83 ANK/BK/June 09, 2009)	2009
Chile	Constitucion Politica de la Republica de Chile	1980 (2017)
	Codigo de Aguas	1981 (2018)
	"Ley 19253 - Establece normas sobre proteccion, fomento y desarrollo de los indigenas, y crea la corporacion nacional de desarrollo indigena"	1993 (2017)
	Ley 19300 - Aprueba ley sobre bases generales del medio ambiente	1994 (2016)
	Decreto 66 - Aprueba reglamento que regula el procedimiento de consulta indígena en virtud del artículo 6 no. 1 letra a) y no. 2 del convenio no. 169 de la organización internacional del trabajo y deroga normativa que indica	2013
	Decision 618- 2011 (CL/JUR/443/2012) Comunidad Agrícola Los Huasco Altinos con Comisión de Evaluación de III Región de Atacama de la Corte de Apelaciones de Antofagasta	2012
	Decision 45848-2016 (CL/JUR/1537/2017) Luis Díaz Farías y otros con Comunidad Indígena Mulluri de la Corte Suprema Tercera Sala (Constitucional)	2017
Colombia	Constitución Política de la República de Colombia	1991 (2016)
	Código Civil, Ley 57 de 1873 (with amendments through 2016)	1873 (2016)
	Ley 21 de 1991	1991
	Ley 70 de 1993	1993
	Ley 99 de 1993	1993
	Ley 142 de 1994	1994
	Ley 731 de 2002	2002
	Ley 1437 de 2011 - Por la cual se expide el Código de Procedimiento Administrativo y de lo Contencioso Administrativo	2011
	Decreto 2811 de 1974	1974
	Decreto 1541 de 1978	1978
	Decreto 1745 de 1995 - Por el cual se reglamenta el Capítulo III de la Ley 70 de 1993, se adopta el procedimiento para el reconocimiento del derecho a la propiedad colectiva de las "Tierras de las Comunidades Negras" y se dictan otras disposiciones	1995
	Decreto 2041 de 2014 - Por el cual se reglamenta el Título VIII de la Ley 99 de 1993 sobre licencias ambientales	2014
	Decreto 1076 de 2015 Por medio del cual se expide el Decreto Único Reglamentario del Sector Ambiente y Desarrollo Sostenible	2015
	Sentencia C-139/96 de la Corte Constitucional	1996
	Sentencia C-169/01 de la Corte Constitucional	2001
	Sentencia C-461/08 de la Corte Constitucional	2008
	Sentencia T-028/14 de la Corte Constitucional	2014
	Sentencia T-225/15 de la Corte Constitucional	2015
	Sentencia T-103/16 de la Corte Constitucional	2016
	Sentencia T-622/16 de la Corte Constitucional	2016
	Sentencia T-5.443.609 de la Corte Constitucional	2017
	Sentencia 44001-23-33-000-2016-00079-01 de la Consejo de estado sala de lo contencioso administrativo, seccion cuarta	2016

Country	Legal Instruments, Court Cases, Select Regional Treaties and Agreements, and Secondary Sources	Year Enacted or Ratified (Revised/Amended)
India	The Constitution of India	1949 (2011)
	The Indian Easements Act of 1882	1882
	Inter-State Water Disputes Act, 1956	1956
	The Water (Prevention and Control of Pollution) Act, 1974	1974
	The Environment (Protection) Act (Act No. 29 of 1986)	1986
	Scheduled Caste and Scheduled Tribe (Prevention of Atrocities) Act, 1989	1989
	The Provisions of the Panchayats (Extension to the Scheduled Areas) Act, 1996	1996
	Biological Diversity Act 2002	2003
	Right to Information Act	2005 (2011)
	Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act of 2006	2007
	The Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013	2013
	Inter-State Water Disputes Rules, 1959	1959
	Mineral Concession Rules, 1960	1960 (2012)
	The Water (Prevention and Control of Pollution) Rules, 1975	1975
	Environment (Protection) Rules, 1986	1986 (2009)
	Biological Diversity Rules, 2004	2004
	Environmental Impact Assessment Rules, 2006	2006
	Environmental Impact Assessment Notification, 2006	2006 (2009)
	Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Rules, 2007	2008 (2012)
	MC Mehta v. Union of India, WP 12739/1985 (1986.02.17)	1986
	Subhash Kumar v. State of Bihar (AIR 1991, SC 420), Supreme Court of India	1991
	Enviro-Legal Action v. Union of India 3 SCC 212 1996, Supreme Court of India	1996
	Samatha v. State of Andhra Pradesh, AIR 1997 SC 3297, Supreme Court of India	1997
	MC Mehta v. Kamal Nath (1997) 1 S.C.C. 388, Supreme Court of India	1996
	Narmada Bachao Andolan v. Union of India [(2000) 9 SCC 571]	2000
	Tekaba AO v. Sakumeren AO (5 SCC 672), Supreme Court of India	2004
	Orissa Mining Corporation vs. Union of India and Ors. (2013)	2013
	Hamid Khan v. State of Madhya Pradesh (AIR 1997 MP 191), Madhya Pradesh High Court	1997
	Hindustan Coca-Cola Beverages (P) Ltd. vs Perumatty Grama Panchayat (2005 (2) KLT 554), High Court of Kerala	2005
	Vishala Kochi Kudivella Samrakshana Samithi v. State of Kerala [2006 (1) KLT 919], High Court of Kerala	2006
	V. Sambasivam v. Government of India, Stay of Order of Tamil Nadu High Court	2016
	Order: IA No. 2 of 2015 in T.C.(C) No. 39 of 2015	2015
	Cullet, Philippe. 2007. Water Law in India: Overview of Existing Framework and Proposed Reforms. Working Paper. International Environmental Law Research Centre, Geneva; Cullet, Philippe. 2012. Is Water Policy the New Water Law? Rethinking the Place of Law in Water Sector Reforms. IDS Bulletin 43/2. International Environmental Law Research Centre, Geneva: 69-78; Cullet, Philippe. 2012. "Water Use and Rights: India." in The Berkshire Encyclopedia of Sustainability, Volume 7: China, India, and East and Southeast Asia: Assessing Sustainability edited by Sam Gaell, Jingjing Liu, and Sony Pellissery: 393-395; De Micheaux, Flore Lafaye. 2015. Review of Draft Indian Water Legislation and Comparison with the European Water Framework Directive. Publications of the European Union Office, Luxembourg; Mishra, Aman. 2015. The Right to Water in India: Changing Perceptions. International Journal of Research in Humanities and Social Studies 2 (4):1-5; USAID, n.d. Country Profile: India – Property Rights and Resource Governance. Accessed 2018; Vani, Matta Sree. 2002. "Customary Law and Modern Governance of Natural Resources in India – Conflicts, Prospects for Accord and Strategies" in Legal Pluralism and Unofficial Law in Social, Economic and Political Development, edited by Rajendra Pradhan. Papers of the XIIIth International Congress, 7-10 April, 2002, Chiang Mai, ICNEC Kathmandu. Volume I: 409-446; Vishal Narain and Annasamy Narayanamoorthy (eds). 2016. Indian Water Policy at the Crossroads: Resources, Technology and Reforms, Global Issues in Water Policy Volume 16.	

Country	Legal Instruments, Court Cases, Select Regional Treaties and Agreements, and Secondary Sources	Year Enacted or Ratified (Revised/Amended)
Kenya	The Constitution of Kenya, 2010	2010
	Irrigation Act	1966 (2012)
	Land (Group Representatives) Act	1970 (2012)
	Environmental Management and Coordination Act, 1999	2000 (2009)
	The Wildlife Conservation and Management Act, 2013	2013
	Environmental Management and Coordination (Amendment) Act, 2015	2015
	The Community Land Act	2016
	Fisheries Management and Development Act, 2016	2016
	The Forest Conservation and Management Act, 2016	2016
	The Mining Act	2016
	The National Drought Management Authority Act, 2016	2016
	The Water Act, 2016	2016
	The Environmental (Impact Assessment And Audit) Regulations, 2003	2003 (2009)
	The Environmental Management And Co-Ordination (Wetlands, River Banks, Lake Shores And Sea Shore Management) Regulations, 2009	2009
	The Community Land Regulations, 2017	2017
	The Water Resources Management Rules, 2007	2007
	African Commission on Human and Peoples’ Rights v. Republic of Kenya, Application No. 006/2012, Decision 26 May, 2017	2017
	African Charter on Human and Peoples’ Rights, 1986	Ratified by Kenya in 1992
	Treaty for the Establishment of the East African Community	2000
	Protocol (to the Treaty for the Establishment of the East African Community) for Sustainable Development of the Lake Victoria Basin, 2003	2004
Liberia	Bailey, J. 2012. Indigenous Peoples and the Right to Food in Kenya. Africa Portal Backgrounder No. 41. The Centre for International Governance Innovation, Ontario; Hellum, Anne, Patricia Kameri-Mbote, and Barbara van Koppen (eds.). 2015. Water is Life: Women’s Human Rights in National and Local Water Governance in Southern and Eastern Africa. Harare: Weaver Press; International Labour Organization and African Commission on Human Rights and Peoples’ Rights. 2009. Kenya: constitutional, legislative and administrative provisions concerning indigenous peoples. International Labour Office, Geneva; Kameri-Mbote, Patricia, Collins Odote, Celestine Musembi, and Wilson Kamande. 2013. Ours by Right: Law, Politics and Realities of Community Property Rights in Kenya. Strathmore University Press, Nairobi; Mathenge, James Maina, Cush Ngonzo Luwesi, Chris Allan Shisanya, Ishmail Mahiri, Rose Adhiambo Akombo, and Mary Nyawira Mutiso. 2014. Community Participation in Water Sector Governance in Kenya: A Performance Based Appraisal of Community Water Management Systems in Ngaciuma-Kinyaritha Catchment, Tana Basin, Mount Kenya Region. International Journal of Innovative Research and Development 3(5); Mumma, Albert. 2007. “Kenya’s New Water Law: an Analysis of the Implications of Kenya’s Water Act, 2002, for the Rural Poor” in Community-based Water Law and Water Resource Management Reform in Developing Countries” edited by Barbara van Koppen, Mark Giordano and John Butterworth: CABI,158-172; National Resources Institute. 2005. Accommodating customary water management arrangements to consolidate poverty-focused water reform: A policy brief. Chatham, UK; Daniel G. Wanyamu. “Process of forming WRUAs in Kenya.” Presentation, n.d; Water Resource Users Association for the management of water resources in a river sub-catchment. 2017. Centre for Development and Environment; WWF- Kenya. 2017. Kenya’s Water Resource Users Associations: Devolving Responsibility for Water Management in the Mara River Basin. Freshwater Case Study.	
	The Constitution of Liberia	1986
	An Act to Amend the Public Authorities Law to Create the Liberia Water and Sewer Corporation	1973
	An Act to Amend the Agriculture Law to Provide for the Prevention of Water Pollution and the Protection of Marine Life within the Rivers and Streams of the Republic	1973
	Wildlife and National Parks Act	1988
	An Act Adopting The Environment Protection And Management Law Of The Republic Of Liberia	2002
	An Act For The Establishment of a Protected Forest Areas Network And Amending Chapters 1 And 9 Of The New National Forestry Law, Part II, Title 23 Of The Liberian Code Of Law Revised And Thereto Adding Nine New Sections	2003
	Minerals and Mining Act	2006
	The National Forestry Reform Law of 2006	2006
	An Act to Establish the Community Rights Law of 2009 with Respect to Forest Lands	2009

Country	Legal Instruments, Court Cases, Select Regional Treaties and Agreements, and Secondary Sources	Year Enacted or Ratified (Revised/Amended)
Liberia	An Act to Establish the Land Commission	2009
	Freedom of Information Act	2010
	An Act to Establish the Land Rights Law of 2018	2018
	Forestry Development Authority Ten Core Regulations	2007
	Forestry Development Authority Regulation No. 110-07 Regulation on Rights of Private Land Owners	2007
	Regulations Governing Exploration under a Mineral Exploration License	2010
	Regulations to the Community Rights Law of 2009 with Respect to Forest Lands	2011 (2017)
	Forestry Development Authority Regulation No. 113-08 Regulation on Environmental Impact Assessment	2009
Mali	Constitution du Mali	1992
	Loi No. 91-47/AN-RM relative à la protection de l'environnement et du cadre de vie	1991
	Loi No. 93-044, portant création des chambres regionales d'agriculture et de l'assemblée permanente des chambres d'agriculture du Mali	1993
	Loi No. 95-004 fixant les conditions de gestion des ressources forestières	1995
	Loi No. 96-050, portant principes de constitution et de gestion du domaine de collectivités territoriales	1996
	Loi No. 98-012 du 19 janvier 1998, régissant les relations entre l'Administration et les usagers des Services publics	1998
	Loi No. 01-004 du 27 fev. 2001, portant charte pastorale du Mali	2001
	Loi No. 02-006 du 31 janvier 2002, portant Code de l'eau	2002
	Loi No. 02-008 du 12 février 2002, portant modification et ratification de l'Ordonnance No. 00-027/P-RM du 22 mars 2000 portant code domanial et foncier	2002
	Loi No. 04-037 du 2 août 2004, portant organisation de la recherche, de l'exploitation, du transport et du raffinage des hydrocarbures	2004
	Loi No. 06-045 du 5 septembre 2006, portant loi d'orientation agricole	2006
	Loi No. 2011-040 du 15 juillet 2011, portant statut des exploitations et des exploitants agricoles	2011
	Loi No. 2012-001 du 10 janvier 2012, portant modification de l'Ordonnance No. 00-027/PRM du 22 mars 2000, portant code domanial et foncier modifiée et ratifiée par la loi No. 02-008 du 12 février 2002	2012
	Loi No. 2014-062 du 29 décembre 2014, déterminant les principes et les conditions de gestion de la pêche et de l'aquaculture	2014
	Loi No. 2017- 001 du 11 avril 2017, portant sur le foncier agricole	2017
	Loi No. 2017-019 du 12 juin 2017, portant loi d'orientation pour l'aménagement du territoire	2017
	Décret No. 92-0731 P-CTSP, portant promulgation de la Constitution	1992
	Décret No. 2011-637-P-RM du 20 septembre 2011 déterminant les conditions et modalités d'exercice des droits conférés par les titres d'exploitation et de transport des produits forestiers	2011
	Ordonnance No. 99-032/P-RM du 19 aout 1999, portant code minier en République du Mali	1999
	Arrêté interministeriel No. 00 3267, fixant les modalités et critères de mise en oeuvre de la stratégie nationale de l'alimentation en eau potable et de l'assainissement en milieu rural et semi-urbain	2000
	Collart Dutilleul, François, Alhousseini Diabaté, Issa Sidibé. 2013. "Le respect du droit à l'eau et la sécurité alimentaire dans le cadre des aménagements hydro-agricoles au Mali" in Penser une démocratie alimentaire (vol. I), edited by François Collart Dutilleul. Inida: 143; Coulibaly, Mohamed and Mamadou Goïta. 2017. Agricultural land law in Mali: A Glimmer of hope! Presentation to International Institute for Sustainable Development; Cornu, Florent. 2011. La gestion concertée des ressources en eau au Mali: une expérience originale à l'épreuve des pratiques locales. AVSF-ICD; Coordination Nationale des Organisations Paysannes. 2017. Convergence malienne contre les accaparements des terres, Note politique dans le cadre de la recherche action IDRC/FIAN/CNOP/CMAT. FIAN and TNI; Ministère des Mines, de l'Energie et de l'Eau de République du Mali. 2006. Politique Nationale de L'Eau, adopté en Conseil des Ministres en sa séance du 22 février 2006.	

Country	Legal Instruments, Court Cases, Select Regional Treaties and Agreements, and Secondary Sources	Year Enacted or Ratified (Revised/Amended)
Mexico	Constitución Política de los Estados Unidos Mexicanos del 1917	1917 (2019)
	Ley de Aguas Nacionales	1992 (2016)
	Ley Agraria	1992 (2018)
	Ley Orgánica de los Tribunales Agrarios	1992 (1998)
	Amparo en Revisión 381/2011	2011
	Tesis VI.3o.A.44 A (10a.) Gaceta del Semanario Judicial de la Federación. Décima Época. Tribunales Colegiados de Circuito. Libro 20, Julio de 2015, Tomo II. Pág. 1764. Tesis Aislada. Sociedades de producción rural. Es improcedente el amparo indirecto contra la resolución de su asamblea en la que se separó o destituyó a uno de sus socios y, como consecuencia, se le privó del volumen de agua a que tenía derecho, ya que contra ese acto debe agotarse previamente el juicio agrario.	2015
	Contradicción de Tesis 12/2008-ss. Gaceta del semanario judicial de la federación. Novena época. Segunda sala. Tomo xxvii. Pág. 595. Entre las sustentadas por los tribunales colegiados primero, quinto, décimo séptimo, sexto, noveno, décimo cuarto y décimo sexto, todos en materia administrativa del primer circuito.	2008
	Almeida, Elsa. 2009. Ejidatarias, posesionarias, avecindadas. Mujeres frente a sus derechos de propiedad en tierras ejidales de México. Revista Estudios Agrarios; López Bárcenas, Francisco. 2017. El Régimen de la Propiedad Agraria en México: primeros auxilios jurídicos para la defensa de la tierra y los recursos naturales. Mexico: Centro de Orientación y Asesoría a Pueblos Indígenas A.C., Centro de Estudios para el Cambio en el Campo Mexicano, Instituto Mexicano para el Desarrollo Comunitario A.C., Servicios para una Educación Alternativa EDUCA A.C.	
Morocco	Dahir du 9 ramadan 1331 (12 août 1913) sur l'immatriculation des immeubles	1913
	Dahir du 7 Chaabane 1332 (1er juillet 1914) sur le Domaine public dans la zone du Protectorat Français de l'Empire Chérifien	1914 (1919)
	Dahir No. 1-87-12 du 3 jourmada II 1411 (21 decembre 1990) portant promulgation de la loi No. 02-84 relative aux associations d'usagers des eaux agricoles	1990
	Dahir No. 1-16-113 du 6 kaada 1437 (10 aout 2016) portant promulgation de la loi No. 36-15 relative à l'eau	2016
Nepal	Constitution of Nepal 2015	2015
	The Muluki Ain (General Code)	1963 (2010)
	The Lands Act, 2021 (1964)	1964 (2010)
	Land Acquisition Act, 2034 (1977)	1977 (2010)
	Nepal Treaty Act, 2047 (1990)	1990
	Electricity Act, 2049 (1992)	1992
	Water Resources Act, 2049 (1992)	1992
	Forest Act, 2049 (1993)	1993
	Environment Protection Act, 2053 (1997)	1997
	National Foundation for Development of Indigenous Nationalities Act	2002
	National Human Rights Commission Act, 2068 (2012)	2012
	Water Resource Rules, 2050 (1993)	1993
	Environment Protection Rules, 2054 (1997)	1997
	Drinking Water Rules, 2055 (1998)	1998
	Irrigation Rules, 2056 (2000)	2000
	Aryal, Ravi Sharma. 2011. The Law on Ownership and Right to Water in Nepal. Kathmandu: Jalsrot Vikas Sanstha/Global Water Partnership, Nepal; Khadka, Shantam S. 1997. Water use and water rights in Nepal: legal perspective. International Water Management Institute; Lawyers' Association for Human Rights of Nepalese Indigenous Peoples, Nepal Federation of Indigenous Nationalities, National Indigenous Women's Federation, Youth Federation of Indigenous Nationalities, Nepal Indigenous Disabled Association, National Coalition Against Racial Discrimination, Indigenous Women's Legal Awareness Group. 2018. Alternative Report of the Indigenous Peoples of Nepal to the Sate Report Submitted by the Government of Nepal to the Committee on the Elimination of Racial Discrimination, Submitted to 95th Session of the United Nations Committee on the Elimination of Racial Discrimination. Geneva: Office of the United Nations High Commissioner for Human Rights (OHCHR); Thami, Tahal and Gobinda Chhantyal (eds.) 2017. Indigenous Peoples Rights in Nepal: Policy Status, Challenges and Opportunities. Kathmandu: Lawyers' Association for Human Rights of Nepalese Indigenous Peoples; WaterAid. 2005. Water Laws in Nepal Laws Relating to Drinking Water, Sanitation, Irrigation, Hydropower and Water Pollution.	



Country	Legal Instruments, Court Cases, Select Regional Treaties and Agreements, and Secondary Sources	Year Enacted or Ratified (Revised/Amended)
Panama	Constitución Política de la República de Panamá	1972 (2004)
	Código Civil de la República de Panamá - Ley No. 2 de 22 de agosto de 1916	1916
	Código Judicial de la República de Panamá	2001
	Ley No. 66 de 10 de noviembre de 1947	1947
	Ley No. 16 del 19 de febrero de 1953	1953
	Ley No. 12 de 25 de enero de 1973	1973
	Ley No. 22 de 8 de noviembre de 1983	1983
	Ley No. 23 de 21 de octubre de 1983	1983
	Ley No. 16 de 10 de agosto de 1994	1994
	Ley No. 24 de 12 de enero de 1996	1996
	Texto Único de la Ley 6 de 1997 "Que dicta el marco regulatorio e institucional para la prestación del servicio público de electricidad" y sus modificaciones	1997
	Ley No. 10 de 7 de marzo de 1997	1997
	Ley No. 41 de 1 de julio de 1998	1998 (2016)
	Ley No. 34 de 25 de julio de 2000	2000
	Ley No. 77 de 28 de diciembre de 2001	2001
	Ley No. 6 de Acceso a la Información (2002)	2002
	Ley No. 44 de 5 de agosto de 2002	2002
	Ley No. 2 de 7 de enero de 2006	2006
	Ley 72 de 23 de diciembre de 2008 Que establece el procedimiento especial para adjudicación de la propiedad colectiva de tierras de los pueblos indígenas que no están dentro de las comarcas	2008
	Ley No. 20 de 27 de marzo de 2009	2009
	Ley No. 55 de 23 de marzo de 2011	2011
	Ley No. 11 de 26 de marzo de 2012	2012
	Ley Fundamental y Estatuto de la Comarca de Kuna Yala	2013
	Ley No. 8 de 25 de marzo de 2015	2015
	Ley 37 de 2 de agosto de 2016	2016
	Decreto Ejecutivo No. 70 de 27 de julio de 1973	1973
	Decreto Ejecutivo No. 55 de 13 de junio de 1973 Por el cual se reglamentan las servidumbres de aguas	1974
	Decreto No. 66 de 25 de septiembre de 1984	1984
	Decreto Ejecutivo No. 228 de 3 de diciembre de 1998	1998
	Decreto Ejecutivo No. 84 de 9 de abril de 1999	1999
	Decreto Ejecutivo No. 194 de 25 de agosto de 1999	1999
	Decreto Ejecutivo No. 414 de 22 de octubre de 2008	2008
	Decreto Ejecutivo No. 19 de 30 de abril de 2009	2009
	Decreto Ejecutivo No. 123 de 14 de agosto de 2009	2009
	Decreto Ejecutivo 223 de 29 de junio de 2010 Que reglamenta la Ley 72 de 2008	2010
	Decreto Ejecutivo No. 479 de 23 de abril de 2013	2013
	Decreto Ejecutivo No. 480 de 23 de abril de 2013	2013
	Decreto Ejecutivo No. 1839 de 5 de diciembre de 2014	2014
	Decreto Ley No. 35 de 22 de septiembre de 1966	1966
	Decreto Ley No. 2 de 7 de enero de 1997	1997
	Resolución No. AG-0434-2015 de 20 de octubre de 2015	2015
	Interamerican Court of Human Rights. Case of the Saramaka People v. Suriname. Interpretation of the Judgment on Preliminary Objections, Merits, Reparations and Costs. Judgment of August 12, 2008. Series C No. 185.	2008



Country	Legal Instruments, Court Cases, Select Regional Treaties and Agreements, and Secondary Sources	Year Enacted or Ratified (Revised/Amended)
Panama	Case Concerning Pulp Mills on the River Uruguay (Argentina v Uruguay) (Judgment) [2010] International Court of Justice Rep (20 April 2010)	2010
	Interamerican Court of Human Rights. Case of the Indigenous Peoples Kuna of Madungandí and Emberá de Bayano and their members v. Panama. Preliminary Exceptions, Merits, Reparations and Costs. Judgment of October 14, 2014. Series C No. 284	2014
	Sentencia de 2015, Demanda Contencioso Administrativa de Nulidad interpuesta por el Licenciado Nikolas Yersil en representación de Cesar Salazar Serrano, para que se declare nulo por ilegal, el contrato no.6 de 16 de febrero de 2005 celebrado entre la empresa Cuprum Resources y el Ministerio de Comercio e Industrias.	2015
	Sentencia de 16 de diciembre de 2016. Magistrado Ponente: Abel Zamorano. Mediante la cual se declara nula, por ilegal, la resolución de caudal ecológico.	2016
	Sentencia de 25 de mayo de 2017. Magistrado Ponente: Jeronimo Mejía. Mediante la cual se reconoce el derecho humano al agua en Panamá.	2017
	Reglamento para el Establecimiento del Estatuto de la Comision Binacional de la Cuenca del Rio Sixaola, 14 de enero de 2013	2013
	Boyle, Alan. 2011. Developments in the International Law of Environmental Impact Assessments and their Relation to the Espoo Convention. Review of European Community & International Environmental Law, 20: 227-231; Díaz Miranda, Mónica. N.d. Las Juntas Administradoras de Acueductos Rurales (JAARS)- Aportando al Derecho Humano al Agua en Panamá. Alianza por el Agua, MINSA; OHCHR. 2010. The Right to Water. Fact Sheet No. 35; Ministerio de Ambiente, Autoridad del Canal de Panamá. 2015. Guía para el Proceso de Permisos de Uso y Concesiones de Agua. Global Water Partnership; Rivas Rios, Francisco. 2009. Marco Institucional y Legal de los Pueblos Indígenas de Panamá; Sands, P., J. Peel, A. Fabra, & R. MacKenzie. 2012. Principles of International Environmental Law. Cambridge: Cambridge University Press; Langshaw, Alexander. 2012. Giving Substance to Form: Moving towards an Integrated Governance Model of Transboundary Environmental Impact Assessment. Nordic Journal of International Law, 81(1), 21-38.	
Peru	Constitución Política del Perú, 1993	1993
	Ley No. 26821, 1997 - Ley Orgánica para el Aprovechamiento de los Recursos Naturales	1997
	Ley No. 28611 - Ley General del Medio Ambiente en Perú	2005
	Ley No. 28736, 2006 - Ley para la protección de pueblos indígenas u originarios en situación de aislamiento y en situación de contacto inicial	2006
	Ley No. 29338, 2009 - Ley De Recursos Hídricos	2009
	Ley No. 29763/2011, Ley del derecho a la consulta previa a los pueblos indígenas reconocido en el Convenio 169 de la OIT	2011
	Ley No. 30157, Ley de las Organizaciones de Usuarios de Agua	2015
	Decreto Supremo MIMDES No. 008/2007	2007
	Decreto Supremo No. 001-2010-AG, Reglamento de la Ley De Recursos Hídricos, Ley No. 29338	2010
	Decreto Supremo No. 001-2012-MC, Reglamento de la ley del derecho a la consulta previa a los pueblos indígenas reconocido en el Convenio 169 de la OIT	2012
	Decreto Supremo No. 005-2015-MINAGRI, que aprueba el Reglamento de la Ley No. 30157, Ley de las Organizaciones de Usuarios de Agua	2015
	CT EXP No. 6534-2006-PA/TC	2006
	EXP. No. 03343-2007-PA/TC	2007
	EXP. No. 0022-2009-PI/TC	2009
	EXP. No. 05427-2009-PC/TC	2009
	CT EXP No. 3333-2012-PA/TC	2012
	Inter-American Commission on Human Rights. 2013. Pueblos Indígenas en Aislamiento Voluntario y Contacto Inicial en las Américas: recomendaciones para el pleno respeto a sus derechos humanos. Comisión Interamericana de Derechos Humanos; Office of the High Commissioner for Human Rights. 2012. Guidelines for the Protection of Indigenous Populations in Isolation and Initial Contact in the Amazonic Region, Gran Chaco and the Oriental Paraguayan Region; Ruiz-Molleda, J.C. 2014. La consulta previa de los pueblos indígenas en el Perú Compendio de legislación y jurisprudencia.	

Country	Legal Instruments, Court Cases, Select Regional Treaties and Agreements, and Secondary Sources	Year Enacted or Ratified (Revised/Amended)
Vietnam	The Constitution of the Socialist Republic of Vietnam of 2013	2013
	Civil Code (No. 91/2015/QH13)	2015
	Law on Gender Equality (No. 73/2006/QH11)	2006
	Law on Complaints (No. 02/2011/QH13)	2011
	Cooperative Law (No. 23/2012/QH13)	2012
	Law on Water Resources (No. 17/2012/QH13)	2012
	Land Law (Law No. 45/2013/QH13)	2014
	Law on International Treaties No. 108/2016/QH13	2016
	Forestry Law (No. 16/2017/QH14)	2017
	Irrigation Law (No. 08/2017/QH14)	2017
	Law on State Compensation Responsibility (No. 10/2017/QH14)	2017
	Decree No. 120/2008/ND-CP on river basin management	2008
	Decree providing guidance for the implementation of a number of articles of the Law on Water Resources (No. 201/2013/ND-CP)	2013
	Decree Detailing a Number of Articles of the Land Law (No. 43/2014/ND-CP)	2014
	Decree prescribing environmental protection master plan, strategic environmental assessment, environmental impact assessment and environmental protection plan (No. 18/2015/ND-CP)	2015
	Circular No. 04/2012/TT-BNV on guidelines for organization and operation of villages and neighborhoods	2012
	Circular No. 27/2014/TT-BTNMT of the Ministry of Natural Resources and the Environment providing regulation on the registration for groundwater extraction, form of dossier for issue, extension, modification and re-issue of water resource permit	2014
	Circular No. 9/2017/TT-BNV amending and supplementing several articles in Circular No. 04/2012/TT-BNV of the Minister of Interior guiding the organization and operation of villages and neighborhoods	2017
	Decision on the establishment and implementation of village conventions (No. 22/2018/QĐ-TTG)	2018
	The Agreement on the Cooperation for the Sustainable Development of the Mekong River Basin	1995
	Mekong River Commission Procedures for Notification, Prior Consultation and Agreement	2003
Zambia	Constitution of Zambia (Amendment) Act, No. 2 of 2016	2016
	The Agricultural Lands Act	1960 (1965)
	Inland Waters Shipping Act	1961 (1996)
	Lands Acquisition Act	1970 (1992)
	Co-operative Societies Act	1972 (1998)
	Zambezi River Authority Act	1987 (2001)
	National Heritage Conservation Commission Act (Chapter 173)	1989
	Local Government Act	1991 (1995)
	The Lands Act, 1995	1995 (1996)
	Mines and Minerals Act	1995
	The Public Health Act	1995
	Water Supply and Sanitation Act, 1997	1997
	The Environmental Management Act, 2011	2011
	The Fisheries Act, 2011	2011
	The Water Resources Management Act, 2011	2011
	The Forests Act, No. 4 of 2015	2015
	The Urban and Regional Planning Act, 2015	2015
	Water Rights (Registration) Regulations	1950

Country	Legal Instruments, Court Cases, Select Regional Treaties and Agreements, and Secondary Sources	Year Enacted or Ratified (Revised/Amended)
Zambia	Lands (Customary Tenure) (Conversion) Regulations	1996
	Environmental Protection and Pollution Control (Environmental Impact Assessment) Regulations, 1997	1997
	Fisheries Regulations, 2012	2012
	The Forests (Community Forest Management) Regulations, 2018	2018
	Water Resources Management (Groundwater and Boreholes) Regulations, 2018	2018
	The Revised Protocol on Shared Watercourses in the Southern African Development Community	2002
	Convention on the Sustainable Management of Lake Tanganyika, 2003	Ratified by Zambia in 2008
	Agreement on the Establishment of the Zambezi Watercourse Commission, 2004	Ratified by Zambia in 2013
	Human Rights Committee. 2007. Consideration of Reports submitted by States Parties under Article 40 of the Covenant - Concluding observations of the Committee on Economic, Social and Cultural Rights. 2005. Consideration of Report submitted by States Parties under Articles 16 and 17 of the Covenant - Concluding observations of the Committee on Economic, Social and Cultural Rights: Zambia. Economic and Social Council; Human Rights Committee: Zambia. International Covenant on Civil and Political Rights; Republic of Zambia. 2017. National report submitted in accordance with paragraph 5 of the annex to Human Rights Council resolution 16/21: Zambia. Submitted to the Human Rights Council Working Group on the Universal Periodic Review, Twenty-eighth session. 6-17 November 2017.	

## Endnotes

---

- <sup>1</sup> WHO and UNICEF. 2017. Progress on Drinking Water, Sanitation and Hygiene: 2017 Update and SDG Baselines. World Health Organization and the United Nations Children's Fund, Geneva, 24. Available at: [https://www.unicef.org/publications/index\\_96611.html](https://www.unicef.org/publications/index_96611.html).
- <sup>2</sup> See Creed, Irena F. and Meine van Noordwijk (eds.). 2018. Forest and Water on a Changing Planet: Vulnerability, Adaptation and Governance Opportunities. A Global Assessment Report. IUFRO World Series Volume 38, Vienna.
- <sup>3</sup> Commission on Legal Empowerment of the Poor and United Nations Development Programme (UNDP). 2008. Making the Law Work for Everyone, Volume II, Commission on Legal Empowerment of the Poor, New York, 79–80. Available at: [https://www.undp.org/content/dam/aplaws/publication/en/publications/democratic-governance/legal-empowerment/reports-of-the-commission-on-legal-empowerment-of-the-poor/making-the-law-work-for-everyone---vol-ii---english-only/making\\_the\\_law\\_work\\_II.pdf](https://www.undp.org/content/dam/aplaws/publication/en/publications/democratic-governance/legal-empowerment/reports-of-the-commission-on-legal-empowerment-of-the-poor/making-the-law-work-for-everyone---vol-ii---english-only/making_the_law_work_II.pdf); Alden Wily, Liz. 2011. The Tragedy of Public Lands: The fate of the commons under global commercial pressure. International Land Coalition. Available at: <https://www.iccaconsortium.org/wp-content/uploads/2015/08/legal-example-the-tragedy-of-public-lands-2011.pdf>; see also Oxfam, International Land Coalition, and Rights and Resources Initiative. 2016. Common Ground: Securing land rights and safeguarding the earth. Oxfam, Oxford. Available at: <https://policy-practice.oxfam.org.uk/publications/common-ground-securing-land-rights-and-safeguarding-the-earth-600459>.
- <sup>4</sup> Rights and Resources Initiative. 2015. Who Owns the World's Land? A global baseline of formally recognized indigenous and community land rights. Rights and Resources Initiative, Washington, DC. Available at: <https://rightsandresources.org/en/publication/whoownstheand/#.Wv4fwPkvz>.
- <sup>5</sup> According to FAO estimates, Spain's land area is 49.95 million hectares. FAO. Spain Country Profile. Food and Agriculture Organization of the United Nations. Accessed August 12, 2019. Available at: <http://www.fao.org/countryprofiles/index/en/?iso3=ESP>.
- <sup>6</sup> FAO. 2016a. Exploring the Concept of Water Tenure. Food and Agriculture Organization of the United Nations, Rome, x. Available at: <http://www.fao.org/3/a-i5435e.pdf>.
- <sup>7</sup> FAO 2016a.
- <sup>8</sup> Molnár, Zsolt and Fikret Berkes. 2018. "Role of traditional ecological knowledge in linking cultural and natural capital in cultural landscapes." In Reconnecting Natural and Cultural Capital: Contributions of Science and Policy, edited by Maria Luisa Paracchini, Pier Carlo Zingari, and Carlo Blasi. Publications Office of the European Union, Luxembourg; de Wit, Anton and Nelson Chanza. 2016. Enhancing climate governance through indigenous knowledge: Case in sustainability science. Review Article in South African Journal of Science 112(3/4). Available at: <https://www.sajs.co.za/article/view/4058>.
- <sup>9</sup> UNEP. 2019. Environmental Rule of Law: First Global Report. United Nations Environment Programme, Nairobi: 171–173. Available at: [https://wedocs.unep.org/bitstream/handle/20.500.11822/27279/Environmental\\_rule\\_of\\_law.pdf?sequence=1&isAllowed=y](https://wedocs.unep.org/bitstream/handle/20.500.11822/27279/Environmental_rule_of_law.pdf?sequence=1&isAllowed=y); see also, for example: Constitutional Court of Colombia. 2016. Decision T-622/2016. Available at: <http://www.corteconstitucional.gov.co/relatoria/2016/t-622-16.htm>; Chaikuni Institute. 2015. Oil Dependency and the Peruvian Amazon: How Oil Companies Have Exploited the Rainforests of Loreto (with Testimonies of the Kichwa People from the Tigre River). Available at: <https://www.lifemosaic.net/images/uploads/oil-dependency.pdf>; Cultural Survival. 2015. Peru: Indigenous Communities Mobilize, Occupy Oil Wells. Available at: <https://www.culturalsurvival.org/news/peru-indigenous-communities-mobilize-occupy-oil-wells>.
- <sup>10</sup> Rights and Resources Initiative. 2019. Strengthening Indigenous and Rural Women's Rights to Govern Community Lands: Ten Factors Contributing to Successful Initiatives. Rights and Resources Initiative, Washington, DC. Available at: <https://rightsandresources.org/en/publication/strengthening-indigenous-and-rural-womens-rights-to-govern-community-lands-ten-factors-contributing-to-successful-initiatives/#.XVBpNfjKjIV>; World Bank. 2008. The Role of Indigenous Peoples in Biodiversity Conservation: The Natural but Often Forgotten Partners. World Bank, Washington, DC. Available at: <http://documents.worldbank.org/curated/en/995271468177530126/pdf/443000WP0BOX321onservation01PUBLIC1.pdf>.
- <sup>11</sup> Meinzen-Dick, Ruth and Leticia Nkonya. 2007. "Understanding Legal Pluralism in Water and Land Rights: Lessons from Africa and Asia." In Community-based Water Law and Water Resource Management Reform in Developing Countries, edited by Barbara van Koppen, Mark Giordano, and John Butterworth, 12–27. CABI Publishers: Wallingford. Available at: <https://freegeoebook.files.wordpress.com/2009/01/1845933265.pdf>.
- <sup>12</sup> Alden Wily, Liz, Fabrice Dubertret, Peter Veit, Katie Reytar, and Nicholas Tagliarino. 2017. Water rights on community lands: LandMark's findings from 100 countries. Land 6(4) 77. Available at: <https://www.mdpi.com/2073-445X/6/4/77/htm>; Sachs, Carolyn. 2009. Module 10: Gender and natural resources management. In Gender in Agriculture Sourcebook, 423–474. The World Bank, Food and Agriculture Organization of the United Nations, and International Fund for Agricultural Development, Washington, DC: 229. Available at: <http://www.fao.org/3/a-aj288e.pdf>.
- <sup>13</sup> FAO 2016a: 52.
- <sup>14</sup> In many cases, government regulations or actions may be necessary to balance basin-wide or national priorities for water allocation or resource sustainability with community needs. Where such regulations or actions follow legal due process requirements with respect to communities' legal water tenure rights, this would not be considered "undue" interference.

- <sup>15</sup> FAO 2016a: 31.
- <sup>16</sup> Alden Wily et al. 2017: 8.
- <sup>17</sup> De Ridder, Benjamin and Jean Ruhiza Boroto. 2012. "Impacts of climate change and variability on Africa's water resources" In *Managing Africa's water resources: Integrating sustainable use of land, forests and fisheries*, edited by Foday Bojang, 44-47. Accra: FAO Regional Office for Africa. Available at: <http://www.fao.org/3/aq098e/aq098e.pdf>; UN Water. 2010. *Climate Change Adaptation: The Pivotal Role of Water*. Policy Brief. Available at: <https://www.unwater.org/publications/climate-change-adaptation-pivotal-role-water/>.
- <sup>18</sup> Tengberg, Anna, Aida Bargues-Tobella, Jennie Barron, Ulrika Ilstedt, Fernando Jaramillo, Kristina Johansson, Jan Lannér, Markus Petzén, Tobias Robinson, Lotta Samuelson, Karin Östberg. 2018. *Water for productive and multifunctional landscapes*. Report no. 38. SIWI, Stockholm: 8.
- <sup>19</sup> Minang, Peter A., Meine van Noordwijk, Olivia E. Freeman, Lalisa A. Duguma, Cheikh Mbow, Jan de Leeuw, and Delia Catacutan. 2015. "Introductions and basic propositions." In *Climate-Smart Landscapes: Multifunctionality In Practice*, edited by Peter A., Minang, Meine van Noordwijk, Olivia E. Freeman, Cheikh Mbow, Jan de Leeuw and Delia Catacutan. . World Agroforestry Centre (ICRAF): Nairobi, 4. Available at: <https://peoplefoodandnature.org/publication/climate-smart-landscapes>; Tengberg et al. 2018: 8.
- <sup>20</sup> United Nations, Sustainable Development Goals, Goal 12. Available at: <https://www.un.org/sustainabledevelopment/sustainable-consumption-production/>; Gleick, Peter and Charles Iceland. 2018. *Water, Security, and Conflict*. Issue Brief. World Resources Institute. 2. Available at: <https://files.wri.org/s3fs-public/water-security-conflict.pdf>.
- <sup>21</sup> Troell, Jessica J. and Erika Weinthal. 2014. "Shoring up peace: Water and post-conflict peacebuilding." In *Water and post-conflict peacebuilding*, edited by Erika Weinthal, Jessica J. Troell, and Mikiyasu Nakayama, 1-23. Routledge: London. Available at: <https://www.taylorfrancis.com/books/e/9781849775809>.
- <sup>22</sup> Calculation from Global Witness. 2015. *How many more? 2014's deadly environment: the killing and intimidation of environmental and land activists, with a spotlight on Honduras*. Global Witness, London: 9. Available at: [https://www.globalwitness.org/documents/17882/how\\_many\\_more\\_pages.pdf](https://www.globalwitness.org/documents/17882/how_many_more_pages.pdf); Global Witness. 2016. *On Dangerous Ground. 2015's Deadly Environment: The killing and criminalization of land and environmental defenders worldwide*. Global Witness, London: 4-5. Available at: [https://www.globalwitness.org/documents/18482/On\\_Dangerous\\_Ground.pdf](https://www.globalwitness.org/documents/18482/On_Dangerous_Ground.pdf); Global Witness. 2017. *Defenders of the Earth: Global killings of land and environmental defenders in 2016*. Global Witness, London: 4, 10. Available at: [https://www.globalwitness.org/documents/19122/Defenders\\_of\\_the\\_earth\\_report.pdf.pdf](https://www.globalwitness.org/documents/19122/Defenders_of_the_earth_report.pdf.pdf); Global Witness. 2018. *At what cost? Irresponsible business and the murder of land and environmental defenders in 2017*. Global Witness, London: 1, 13. Available at: [https://www.globalwitness.org/documents/19595/Defenders\\_report\\_layout\\_AW2\\_lowres\\_5jP01UZ.pdf](https://www.globalwitness.org/documents/19595/Defenders_report_layout_AW2_lowres_5jP01UZ.pdf); Global Witness. 2019. *Enemies of the state? How governments and business silence land and environmental defenders*. Global Witness, London: 8. Available at: [https://www.globalwitness.org/documents/19766/Enemies\\_of\\_the\\_State.pdf](https://www.globalwitness.org/documents/19766/Enemies_of_the_State.pdf).
- <sup>23</sup> See, for example: Chaikuni Institute 2015; Räsänen, Timo A., Paradis Someth, Hannu Lauri, Jorma Koponen, Juha Sarkkula, and Matti Kumm. 2017. *Observed river discharge changes due to hydropower operations in the Upper Mekong Basin*. *Journal of Hydrology* 545: 28-41. Available at: <https://www.sciencedirect.com/science/article/pii/S0022169416308125>; Räsänen, Timo. 2017. *New study shows significant impact of Chinese dams on Mekong*. Available at: <https://www.thethirdpole.net/en/2017/02/06/new-study-shows-significant-impact-of-chinese-dams-on-mekong/>.
- <sup>24</sup> United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP). 2007. Arts. 19, 28. G.A. Res. 61/295, U.N. Doc. A/RES/61/295. Available at: [http://www.un.org/esa/socdev/unpfii/documents/DRIPS\\_en.pdf](http://www.un.org/esa/socdev/unpfii/documents/DRIPS_en.pdf). It should be noted that while UNDRIP is not binding under international law, it is widely accepted as customary international law and is enforceable in several countries. The ILO Convention 169 is an enforceable international legal agreement that includes relevant requirements, including that Indigenous Peoples have rights to their land/territory and the natural resources therein and to be involved in any decision that could negatively impact those resources. International Labour Organization (ILO) Convention No. 169 (hereafter ILO Convention No. 169). 1989. *Indigenous and Tribal Peoples Convention*. Arts. 4, 6, 16. Available at: [http://www.ilo.org/wcmsp5/groups/public/---ed\\_norm/---normes/documents/publication/wcms\\_100897.pdf](http://www.ilo.org/wcmsp5/groups/public/---ed_norm/---normes/documents/publication/wcms_100897.pdf). Although the ILO Convention does not clearly articulate a consent requirement, it does require that governments consult communities "whenever consideration is being given to legislative or administrative measures that could impact them directly." Such consultations have to be carried out "in good faith and in a form appropriate to the circumstances, with the objective of achieving agreement or consent to the proposed measures." In recognizing that the goal of consultation is consent, the Convention articulates the definition of consultation as closer to FPIC than mere dialogue. National laws and caselaw with relevant FPIC requirements include, inter alia: Government of Liberia. 2009. *An Act to Establish the Community Rights Law of 2009 with respect to Forest Lands*. Available at: <http://extwprlegs1.fao.org/docs/pdf/lbr143892.pdf>; Constitutional Court of Colombia. 1997. *Ruling SU-039/97, Proponent Magistrate Antonio Barrera Carbonel*. Translated in: R Roldan. 2000. *Indigenous Peoples of Colombia and the Law, A Critical Approach to the Study of Past and Present Situations*.
- <sup>25</sup> UNDRIP 2007: Arts. 19, 28; ILO Convention No. 169 1989: Arts. 4, 6, 16; Convention on Biodiversity. 1992. Art. 8(j) United Nations. Available at: [www.cbd.int/doc/legal/cbd-en.pdf](http://www.cbd.int/doc/legal/cbd-en.pdf).
- <sup>26</sup> Sachs 2009: 229.
- <sup>27</sup> WHO and UNICEF 2017: 7; Theis, Sophie. 2019. *Making Small-Scale Irrigation Work for Women*. International Food Policy Research Institute (IFPRI) Blog. Available at: <http://www.ifpri.org/blog/making-small-scale-irrigation-work-women>; Domènech, Laia. 2015. *How Can*

- Irrigation Water Improve Women's Empowerment and Nutrition? IFPRI Discussion Paper. Available at: <http://a4nh.cgiar.org/2015/06/01/how-can-irrigation-water-improve-womens-empowerment-and-nutrition-an-untapped-potential-for-africa-south-of-the-sahara/>.
- <sup>28</sup> FAO. 2017. *The Future of Food and Agriculture: Trends and Challenges*. Food and Agriculture Organization of the United Nations, Rome, 45. Available at: <http://www.fao.org/3/a-i6583e.pdf>; Sachs 2009: 229-234.
- <sup>29</sup> Dalton, James, David Ellison, Matthew McCartney, Jamie Pittock, Brendan Smith. 2016. "Can't see the water for the trees?" Global Water Forum. Available at: <http://www.globalwaterforum.org/2016/10/03/cant-see-the-water-for-the-trees/>; FAO. 2018. *Forests and Water: Managing our connected natural capital*. Food and Agriculture Organization of the United Nations, Rome. Available at: <http://www.swedishwaterhouse.se/wp-content/uploads/20180321-Forest-Water-Nexus-Statement-WEB-Final-1.pdf>.
- <sup>30</sup> UN Water 2010: 5; FAO 2018; Dalton et al. 2016; Tengberg et al. 2018; Creed and van Noordwijk 2018.
- <sup>31</sup> Dalton et al. 2016; FAO 2018; Creed and van Noordwijk 2018; Tengberg et al. 2018.
- <sup>32</sup> Van Noordwijk, Meine, Beria Leimona, Ma Xing, Lisa Tanika, Sara Namirembe and Didik Suprayogo. 2015. "Water-focused landscape management." In *Climate-Smart Landscapes: Multifunctionality In Practice*, edited by Peter A. Minang, Meine van Noordwijk, Olivia E. Freeman, Cheikh Mbow, Jan de Leeuw and Delia Catacutan, 179-192. World Agroforestry Centre (ICRAF): Nairobi. Available at: <https://peoplefoodandnature.org/publication/climate-smart-landscapes>.
- <sup>33</sup> Feldpausch, T.R., O. L. Phillips, R. J. W. Brienen, E. Gloor, J. Lloyd, G. Lopez-Gonzalez, A. Monteagudo-Mendoza, Y. Malhi, A. Alarcón, E. Álvarez Dávila, P. Alvarez-Loayza, A. Andrade, L. E. O. C. Aragao, L. Arroyo, G. A. Aymard C., T. R. Baker, C. Baraloto, J. Barroso, D. Bonal, W. Castro, V. Chama, J. Chave, T. F. Domingues, S. Fauset, N. Groot, E. Honorio Coronado, S. Laurance, W. F. Laurance, S. L. Lewis, J. C. Licona, B. S. Marimon, B. H. Marimon-Junior, C. Mendoza Bautista, D. A. Neill, E. A. Oliveira, C. Oliveira dos Santos, N. C. Pallqui Camacho, G. Pardo-Molina, A. Prieto, C. A. Quesada, F. Ramírez, H. Ramírez-Angulo, M. Réjou-Méchain, A. Rudas, G. Saiz, R. P. Salomão, J. E. Silva-Espejo, M. Silveira, H. ter Steege, J. Stropp, J. Terborgh, R. Thomas-Caesar, G. M. F. van der Heijden, R. Vásquez Martínez, E. Vilanova, V. A. Vos. 2016. Amazon forest response to repeated droughts. *Global Biogeochem. Cycles* 30. As cited in Dalton et al. 2016; FAO 2018.
- <sup>34</sup> Van Noordwijk et al. 2015: 182.; Springgay, E., Dalton, J., Samuelson, L., Bernard, A., Buck, A., Cassin, J., Matthews, N., Matthews, J., Tengberg, A., Bourgeois, J., Öborn, I., Reed, J. 2018. *Championing the Forest-Water Nexus – Report on the Meeting of Key Forest and Water Stakeholders*. SIWI, Stockholm. Available at: [https://www.siw.org/wp-content/uploads/2018/03/Forest-Water-Nexus-14p-FINAL-14032018\\_lowres.pdf](https://www.siw.org/wp-content/uploads/2018/03/Forest-Water-Nexus-14p-FINAL-14032018_lowres.pdf).
- <sup>35</sup> Sarre, Alastair. 2019. Editorial. *Unasylva: An international journal of forestry and forest industries* Vol. 7 2019/1. Available at: <http://www.fao.org/3/ca6842en/CA6842EN.pdf>.
- <sup>36</sup> Rights and Resources Initiative. 2017a. *Securing Community Land Rights: Priorities and Opportunities to Advance Climate and Sustainable Development Goals*. Rights and Resources Initiative, Washington, DC. Available at: <https://rightsandresources.org/wp-content/uploads/2017/09/Stockholm-Priorities-and-Opportunities-Brief.pdf>; Hurlbert, M., J. Krishnaswamy, E. Davin, F.X. Johnson, C.F. Mena, J. Morton, S. Myeong, D. Viner, K. Warner, A. Wreford, S. Zakieldeen, and Z. Zommers. 2019. Risk Management and Decision making in Relation to Sustainable Development. In: *Climate Change and Land: an IPCC special report on climate change, desertification, land degradation, sustainable land management, food security, and greenhouse gas fluxes in terrestrial ecosystems* [P.R. Shukla, J. Skea, E. Calvo Buendia, V. Masson-Delmotte, H.-O. Pörtner, D.C. Roberts, P. Zhai, R. Slade, S. Connors, R. van Diemen, M. Ferrat, E. Haughey, S. Luz, S. Neogi, M. Pathak, J. Petzold, J. Portugal Pereira, P. Vyas, E. Huntley, K. Kissick, M. Belkacemi, J. Malley, (eds.)]. Intergovernmental Panel on Climate Change. 749-753. Available at: [https://www.ipcc.ch/site/assets/uploads/sites/4/2019/11/10\\_Chapter-7.pdf](https://www.ipcc.ch/site/assets/uploads/sites/4/2019/11/10_Chapter-7.pdf).
- <sup>37</sup> UN Water 2010.
- <sup>38</sup> FAO. 2012. *Voluntary Guidelines on the Responsible Governance of Land, Fisheries and Forests in the Context of National Food Security*. Food and Agriculture Organization of the United Nations, Rome. Available at: <http://www.fao.org/3/i2801e/i2801e.pdf>; FAO 2016a: 1-2.
- <sup>39</sup> Calculation using 2018 population figures. FAOSTAT. 2020. Food and Agriculture Organization of the United Nations, Rome. Accessed January 29. Available at: <http://www.fao.org/faostat/en/#data/OA>.
- <sup>40</sup> Renewable water resources "represent the long-term average annual flow of rivers (surface water) and recharge of aquifers (groundwater) generated from precipitation. They are computed on the basis of the water cycle." By comparison, "non-renewable water resources are groundwater bodies (deep aquifers) that have a negligible rate of recharge on the human time-scale and thus can be considered as non-renewable. While renewable water resources are expressed in flows, non-renewable water resources have to be expressed in quantity (stock)." Additional info on calculation methods can be found at "AQUASTAT – FAO's Global Information System on Water and Agriculture. AQUASTAT methodology: Water Resources" 2020. Food and Agriculture Organization of the United Nations, Rome. Accessed May 27. Available at: <http://www.fao.org/aquastat/en/overview/methodology/water-resources>. And Margat, Jean, Karen Frenken and Jean-Marc Faurès. 2005. *Key Water Resources Statistics in AQUASTAT: FAO's Global Information System on Water and Agriculture*. IWG-Env, International Work Session on Water Statistics, Vienna, June 20-22 2005. Available at: <http://www.fao.org/3/i9241en/i9241en.pdf>.
- <sup>41</sup> Economies are defined according to their Gross National Income (GNI) per capita, using the World Bank Atlas Method Classifications for the 2018 calendar year. Low income countries have a GNI per capita of US\$1,025 per year or less; middle income countries have a GNI per capita between US\$1,026 and US\$12,375; and high-income countries have a GNI per capita of more than US\$12,375. World Bank. 2020.



Country and Lending Groups. Washington, DC: World Bank. Available at: <http://databank.worldbank.org/data/download/site-content/OGHIST.xls>.

<sup>42</sup> Treaties analyzed for this report were identified through the “International Freshwater Treaties Database” compiled by Oregon State University’s Program in Water Conflict Management and Transformation. For each country, peer reviewers were then consulted to ensure the list of relevant treaties was comprehensive. Oregon State University, Program in Water Conflict Management and Transformation. 2020. International Freshwater Treaties Database. Accessed April 28, 2020. Available at: <https://transboundarywaters.science.oregonstate.edu/content/international-freshwater-treaties-database>.

<sup>43</sup> This assessment defines “freshwater” and “freshwater resources” as inclusive of all freshwater in a given source, whether surface or groundwater, but does not include resources existing or making a home within or under those bodies of water, such as fish or mineral resources.

<sup>44</sup> Rights to exclude non-community members from both terrestrial and aquatic resources generally fall within the entire community’s (or a community representative’s) prerogative; thus, the threshold question on women’s rights is considered solely as it relates to legally recognized use and governance rights.

<sup>45</sup> This analysis tracks all circumstances where the majority of recognized freshwater use or governance rights are subject to a permit, as shown in Table 3. Where only a minority of circumstances concerning the right in question require a permit, this information is provided in endnotes associated with the CWTR.

<sup>46</sup> Rights and Resources Initiative. 2017b. Power and Potential: A Comparative Analysis of National Laws and Regulations Concerning Women’s Rights to Community Forests. Rights and Resources Initiative: Washington, DC. Available at: [http://rightsandresources.org/wp-content/uploads/2017/07/Power-and-Potential-A-Comparative-Analysis-of-National-Laws-and-Regulations-Concerning-Womens-Rights-to-Community-Forests\\_May-2017\\_RRI-1.pdf](http://rightsandresources.org/wp-content/uploads/2017/07/Power-and-Potential-A-Comparative-Analysis-of-National-Laws-and-Regulations-Concerning-Womens-Rights-to-Community-Forests_May-2017_RRI-1.pdf); FAO. 2016b. How Can Women Control Water? Increase Agricultural Productivity and Strengthen Resource Management. Food and Agriculture Organization of the United Nations, Rome. Available at: <http://www.fao.org/3/a-i6405e.pdf>; IFAD. 2007. Gender and Water: Securing Water for Improved Rural Livelihoods: The Multiple Use Approach. International Fund for Agricultural Development, Rome. Available at: [https://www.ifad.org/documents/38714170/40706239/Gender+and+Water+-+Security+water+for+rural+livelihoods\\_the+multiple+uses+system+approach/0b3d7bac-c073-4e8f-8424-2d0473b7d226](https://www.ifad.org/documents/38714170/40706239/Gender+and+Water+-+Security+water+for+rural+livelihoods_the+multiple+uses+system+approach/0b3d7bac-c073-4e8f-8424-2d0473b7d226).

<sup>47</sup> UNGA. 2010. United National General Assembly Resolution A/Res/64/292. Available at: [https://www.un.org/en/ga/search/view\\_doc.asp?symbol=A/RES/64/292](https://www.un.org/en/ga/search/view_doc.asp?symbol=A/RES/64/292); UN Committee on Economic, Social and Cultural Rights. 2003. General Comment No. 15: The Right to Water (Arts. 11 and 12 of the Covenant), 20 January 2003, E/C. 12/2002/11. (Hereinafter “General Comment 15”). Available at: <https://www.refworld.org/pdfid/4538838d11.pdf>.

<sup>48</sup> Levin, Thomas, Mijako Nierenköther, and Nina Odenwälder. 2009. The Human Right to Water and Sanitation - Translating Theory into Practice. Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ), Eschborn, Germany; UN Special Rapporteur on the human right to safe drinking water and sanitation. 2016. Human Rights to Water and Sanitation. Available at: [https://www.unece.org/fileadmin/DAM/env/documents/2016/wat/03Mar\\_21-22\\_Workshop\\_EqAccess/1.1\\_Saji\\_OHCHR\\_Human\\_Rights\\_to\\_water\\_and\\_sanitation\\_2016.pdf](https://www.unece.org/fileadmin/DAM/env/documents/2016/wat/03Mar_21-22_Workshop_EqAccess/1.1_Saji_OHCHR_Human_Rights_to_water_and_sanitation_2016.pdf).

<sup>49</sup> General Comment 15 2003.

<sup>50</sup> General Comment 15 2003: paras. 13-16; see also van Koppen, Barbara, Anne Hellum, Lyla Mehta, Bill Derman and Barbara Schreiner. 2017. “Rights-based Freshwater Governance for the Twenty-First Century: Beyond an Exclusionary Focus on Domestic Water Uses.” In *Freshwater Governance for the Twenty-First Century*. Springer Open. Available at: [https://link.springer.com/chapter/10.1007/978-3-319-43350-9\\_7](https://link.springer.com/chapter/10.1007/978-3-319-43350-9_7); Woodhouse, Melvin and Malcolm Langford. 2009. Crossfire: There is no human right to water for livelihoods. *Waterlines* 28 (1): 5-12. Available at: [https://www.jstor.org/stable/24686842?seq=1#page\\_scan\\_tab\\_contents](https://www.jstor.org/stable/24686842?seq=1#page_scan_tab_contents).

<sup>51</sup> General Comment 15 (2003: paras 6, 12(a)) states specifically that the quantity of water available for each person should correspond to WHO guidelines. WHO guidelines state that “basic access” consists of 20 liters per capita per day (l/c/d); intermediate access is approximately 50 l/c/d; and “optimal” access is an average of 100-200 l/c/d supplied within the household; Howard, Guy and Jamie Bartram. 2003. Domestic Water Quantity, Service Level and Health. World Health Organization, Geneva. Available at: [https://www.who.int/water\\_sanitation\\_health/diseases/WSH0302.pdf](https://www.who.int/water_sanitation_health/diseases/WSH0302.pdf); see also van Koppen et al. 2017; Woodhouse and Langford 2009.

<sup>52</sup> International Council on Human Rights Policy. 2009. When Legal Worlds Overlap: Human Rights, State and Nonstate Law. International Council for Human Rights Policy, Geneva. Available at: [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=1551229](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1551229).

<sup>53</sup> Burchi, Stefano. 2005. The interface between customary and statutory water rights – a statutory perspective. International workshop on African Water Laws: Plural Legislative Frameworks for Rural Water Management in Africa, 26-28 January 2005, Johannesburg, South Africa. Available at: <https://assets.publishing.service.gov.uk/media/57a08c88e5274a31e0001296/R8323-Proceedings.pdf>.

<sup>54</sup> UN Women. 2011. “Addressing customary laws and practices that conflict with formal laws.” Available at: <http://www.endvawnow.org/en/articles/762-addressing-customary-laws-and-practices-that-conflict-with-formal-laws.html>; Ndulo, Muna. 2011. African Customary Law, Customs, and Women’s Rights. *Indiana Journal of Global Legal Studies*: 18 (1): 87-120. Available at: <https://www.repository.law.indiana.edu/cgi/viewcontent.cgi?article=1437&context=ijgls>.



- <sup>55</sup> Almeida, Fernanda. 2017. Legislative Pathways Securing Community-Based Property Rights. Rights and Resources Initiative, Washington, DC: 19. Available at: <https://rightsandresources.org/en/publication/legislative-pathways-securing-community-based-property-rights/#.XnDsZqhKJlU>.
- <sup>56</sup> Burchi 2005.
- <sup>57</sup> Birkes, Fikret. 2018 (4th ed). *Sacred Ecology*. Routledge: New York; Farhan-Ferrari, Maurizio. 2012. "Indigenous Resource Management Systems: A holistic approach to nature and livelihoods." *Landscapes for People, Food and Nature*. Available at: [http://peoplefoodandnature.org/blog/forest\\_peoples\\_programme/](http://peoplefoodandnature.org/blog/forest_peoples_programme/).
- <sup>58</sup> See, for example, the Water Act and the Community Land Act in Kenya. Both provide water rights to communities on customary land, however the Water Act requires a permit for all uses except "the abstraction or use of water, without the employment of works, from any water resource for domestic purposes by any person having lawful access to the water resource (Sec. 36)." It is therefore unclear whether the legally vested water rights that are granted under the Community Land Act also require a permit under the Water Act. Government of Kenya. 2016a. Water Act (Act No. 43 of 2016). Available at: [http://kenyalaw.org/kl/fileadmin/pdfdownloads/Acts/WaterAct\\_No43of2016.pdf](http://kenyalaw.org/kl/fileadmin/pdfdownloads/Acts/WaterAct_No43of2016.pdf); Government of Kenya. 2016b. The Community Land Act (Act No. 27 of 2016). Available at: [http://kenyalaw.org/kl/fileadmin/pdfdownloads/Acts/CommunityLandAct\\_27of2016.pdf](http://kenyalaw.org/kl/fileadmin/pdfdownloads/Acts/CommunityLandAct_27of2016.pdf). In Nepal, separate regulations for various types of water use require communities to form up to three distinct WUAs in order to obtain the full suite of water use rights for the range of necessary domestic, livelihoods, commercial and cultural purposes. See Government of Nepal. 1993. Water Resource Rules, 2050 (1993). Available at: <http://www.lawcommission.gov.np/en/archives/category/documents/prevaling-law/rules-and-regulations/water-resources-rules-2050-1993>; Government of Nepal. 2000. Irrigation Rules, 2056 (2000). Available at: <http://www.lawcommission.gov.np/en/wp-content/uploads/2018/09/irrigation-rules-2056-2000.pdf>; Government of Nepal. 1998. Drinking Water Rules, 2055 (1998). Available at: <http://www.lawcommission.gov.np/en/archives/category/documents/prevaling-law/rules-and-regulations/drinking-water-rules-2055-1998>.
- <sup>59</sup> Alden Wily, Liz. 2003. *Governance and Land Relations: A Review of Decentralization of Land Administration and Management in Africa*. IIED, London: 78. Available at: [https://www.researchgate.net/publication/237748765\\_Governance\\_and\\_Land\\_Relations\\_A\\_Review\\_of\\_Decentralisation\\_of\\_Land\\_Administration\\_and\\_Management\\_in\\_Africa](https://www.researchgate.net/publication/237748765_Governance_and_Land_Relations_A_Review_of_Decentralisation_of_Land_Administration_and_Management_in_Africa).
- <sup>60</sup> In Kenya, for example, the Community Land Act (using the definition of "land" under the Kenyan Constitution as including the water on and beneath the land) recognizes water rights as appurtenant to community lands without a license, while the Water Act requires a license or the formation of a Water Resource User Association for communities to vest most of the water use and governance rights. Government of Kenya. 2010. The Constitution of Kenya. Available at: <http://extwprlegs1.fao.org/docs/pdf/ken127322.pdf>; Government of Kenya 2016a; Government of Kenya 2016b.
- <sup>61</sup> Government of Kenya 2010; Government of Kenya 2016b.
- <sup>62</sup> Government of Kenya 2010: Articles 6-7; see, for example: Constitutional Court of Colombia 2016.
- <sup>63</sup> Government of India. 2007. Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006. (Act No. 2 of 2007). Ch. 2, Secs. 5 and 13. Available at: <http://extwprlegs1.fao.org/docs/pdf/ind77867.pdf>.
- <sup>64</sup> Government of Mali. 2001. Loi No. 01-004 du 27 février 2001, portant charte pastorale du Mali. Art. 42. Available at: <http://extwprlegs1.fao.org/docs/pdf/mli25376.pdf>.
- <sup>65</sup> Rights and Resources Initiative 2015: 1-2.
- <sup>66</sup> CAP-NET and Gender and Water Alliance. 2014. Why Gender Matters in IWRM: A tutorial for water managers. Available at: <http://www.thewaterchannel.tv/gender/content/img/frd-full-resource-document-web-version.pdf>.
- <sup>67</sup> International Labour Organization. 2018. Rural Women at Work: Bridging the gaps. International Labour Organization, Geneva. Available at: [https://www.ilo.org/wcmsp5/groups/public/---ed\\_protect/---protrav/---ilo\\_aids/documents/publication/wcms\\_619691.pdf](https://www.ilo.org/wcmsp5/groups/public/---ed_protect/---protrav/---ilo_aids/documents/publication/wcms_619691.pdf); WHO and UNICEF 2017.
- <sup>68</sup> WaterAid. WASH and gender equality: Post-2015 toolkit. Available at: <https://sustainabledevelopment.un.org/getWSDoc.php?id=2428>.
- <sup>69</sup> See, e.g., The Dublin Statement on Water and Sustainable Development. 1992 Principle 3. Available at: <http://www.wmo.int/pages/prog/hwrrp/documents/english/icwedece.html>; United Nations. 1995. Beijing Declaration and Platform of Action, adopted at the Fourth World Conference on Women, 27 October 1995. (Hereinafter "Beijing Declaration"). Available at: <https://www.refworld.org/docid/3dde04324.html>; Narayan, Deepa. 1995. The Contribution of People's Participation: Evidence from 121 Rural Water Supply Projects. The World Bank: Washington, DC. Available at: <http://documents.worldbank.org/curated/en/274861468767096877/pdf/multi-page.pdf>.
- <sup>70</sup> Earle, Anton and Susan Bazilli. 2013. A gendered critique of transboundary water management. *Feminist Review* 103. Available at: <http://iwrp.org/new/wp-content/uploads/2010/07/A-gendered-critique-of-TWM-by-Earle-and-Bazili-published-Mar2013-1.pdf>.
- <sup>71</sup> Zwarteveen, Margreet. 2008. Men, masculinities and water powers in irrigation. *Water Alternatives* 1(1): 111–130. Available at: <http://www.water-alternatives.org/index.php/allabs/19-a-1-1-7/file>; Earle and Bazilli 2013.
- <sup>72</sup> SIWI. 2019. Tapping our Potential: Women's Water Leadership in the Nile Basin. Available at: <https://www.siwi.org/publications/tapping-our-potential-womens-water-leadership-in-the-nile-basin/>.

- <sup>73</sup> See Larson, Rhett. 2012. Water, Worship, and Wisdom: Indigenous Traditional Ecological Knowledge and the Human Right to Water. *ILSA Journal of International & Comparative Law* 19: 43. Available at: <https://ssrn.com/abstract=2045053>.
- <sup>74</sup> FAO. 2006. Modern Water Rights: Theory and Practice. FAO Legislative Study 92. Available at: <http://www.fao.org/3/a-a0864e.pdf>; Burchi, Stefano. 2019. The future of domestic water law: trends and developments revisited, and where reform is headed. *Water International*, 44 (3): 258-277. Available at: <https://www.tandfonline.com/doi/full/10.1080/02508060.2019.1575999>.
- <sup>75</sup> IWMI and Pegasys Institute. 2017a. Current Challenges and Good Practices for Water Use Authorisation Systems in Africa. Policy Brief 5/2017. Available at: [https://reachwater.org.uk/wp-content/uploads/2017/04/17\\_04\\_Pegasys-water-permits-policy-brief.pdf](https://reachwater.org.uk/wp-content/uploads/2017/04/17_04_Pegasys-water-permits-policy-brief.pdf); Burchi 2019.
- <sup>76</sup> See van Koppen et al. 2017; IMWI and Pegasys Institute 2017a.
- <sup>77</sup> See van Koppen et al. 2017.
- <sup>78</sup> See Pegasys Institute and IWMI. 2017b. Water Law Reform to Improve Water Security for Vulnerable People in Africa Synthesis Report. Pegasys Institute and International Water Management Institute, 19-22, 35-36. Available at: [http://africa.iwmi.cgiar.org/wp-content/uploads/sites/2/2017/04/ProPoor-Permitting-Systems-Synthesis-Report\\_2017\\_PI\\_IWMI.pdf](http://africa.iwmi.cgiar.org/wp-content/uploads/sites/2/2017/04/ProPoor-Permitting-Systems-Synthesis-Report_2017_PI_IWMI.pdf).
- <sup>79</sup> Government of Colombia. 1978. Decreto 1541 de 1978 Por el cual se reglamenta la Parte III del Libro II del Decreto - Ley 2811 de 1974: “De las aguas no marítimas” y parcialmente la Ley 23 de 1973. Available at: [http://www.minambiente.gov.co/images/GestionIntegraldelRecursoHidrico/pdf/normativa/Decreto\\_1541\\_de\\_1978.pdf](http://www.minambiente.gov.co/images/GestionIntegraldelRecursoHidrico/pdf/normativa/Decreto_1541_de_1978.pdf).
- <sup>80</sup> Kingdom of Cambodia. 2007. Law on Water Resources Management, Art. 11. Available at: [http://www.cambodiainvestment.gov.kh/law-on-water-resource-management-full-text\\_070629.html](http://www.cambodiainvestment.gov.kh/law-on-water-resource-management-full-text_070629.html).
- <sup>81</sup> Under the Kenya Water Act (2016), no permit is required for “the abstraction or use of water, without the employment of works, from any water resource for domestic purposes by any person having lawful access to the water resource” (Water Act, Sec 36). According to peer review feedback from Liz Alden Wily, while the law is not clear as to whether the definition of “domestic” water uses extends to those uses defined as small-scale productive or livelihoods uses under this analysis, it is being interpreted in ways that enable communities to exempt small-scale productive and livelihoods water uses from a permit requirement, but to maintain the requirement when the use reaches commercial levels (produced revenue beyond use for households). Personal communication with Liz Alden Wily, independent land tenure specialist, on February 17, 2019; Government of Kenya 2016a; see also Republic of Zambia. 2011. Water Resources Management Act. Arts. 6(b) and (m), 61(e), 62. Available at: <http://extwprlegs1.fao.org/docs/pdf/zam117433.pdf>.
- <sup>82</sup> See Rights and Resources Initiative. 2012. What Rights? A Comparative Analysis of Developing Countries’ National Legislation on Community and Indigenous Peoples’ Forest Tenure Rights. Rights and Resources Initiative, Washington, DC. Available at: <http://rightsandresources.org/wp-content/exported-pdf/whattrightsnovember13final.pdf>.
- <sup>83</sup> Schlager, Edella and Elinor Ostrom. 1992. Property Rights Regimes and Natural Resources: A Conceptual Analysis. *Land Economics*. 68(3): 249-262. Available at: [http://dlc.dlib.indiana.edu/dlc/bitstream/handle/10535/3857/Schlager\\_and\\_Ostrom--Property\\_Rights\\_regimes\\_and\\_natural\\_resources\\_a\\_conceptual\\_analysis.pdf?sequence=1](http://dlc.dlib.indiana.edu/dlc/bitstream/handle/10535/3857/Schlager_and_Ostrom--Property_Rights_regimes_and_natural_resources_a_conceptual_analysis.pdf?sequence=1).
- <sup>84</sup> See, for example: Franco, Jennifer, Timothé Feodoroff, Sylvia Kay, Satoko Kishimoto, and Gloria Pracucci. 2014. The Global Water Grab: A Primer. Transnational Institute, for Hands off the Land Alliance. Available at: <https://www.tni.org/en/publication/the-global-water-grab-a-primer>; Franco, Jennifer, Lyla Mehta, and Gert Jan Veldwisch. 2013. “Are African land grabs really water grabs?” CNN, March 22. Available at: <https://www.cnn.com/2013/03/22/opinion/water-grabs-africa/index.html>.
- <sup>85</sup> Global Water Partnership. 2017. IWRM Toolbox: Water Markets (C7.02). Available at: [https://www.gwp.org/en/learn/iwrm-toolbox/Management-Instruments/Economic-Instruments/Water\\_markets/](https://www.gwp.org/en/learn/iwrm-toolbox/Management-Instruments/Economic-Instruments/Water_markets/).
- <sup>86</sup> Hurwitz, Zachary. 2014. Dam Standards: A Rights-Based Approach – A Guidebook for Civil Society. International Rivers, Berkeley. Available at: [https://www.internationalrivers.org/sites/default/files/attached-files/intlivers\\_dam\\_standards\\_final.pdf](https://www.internationalrivers.org/sites/default/files/attached-files/intlivers_dam_standards_final.pdf); Tockner K., Bernhardt E.S., Koska A., Zarfl C. 2016. A Global View on Future Major Water Engineering Projects. In: Hüttli, R. F., Bens, O., Bismuth, C., Hoechstetter, S. (eds) *Society - Water - Technology*. Water Resources Development and Management. Springer, Cham; Mateo-Sagasta, Javier, Sara Marjani Zadeh, and Hugh Turrall. 2017. Water Pollution from Agriculture: A global review. Executive Summary. Food and Agriculture Organization of the United Nations and the International Water Management Institute on behalf of the Water Land and Ecosystems Research Program, Rome and Colombo. Available at: <http://www.fao.org/3/a-i7754e.pdf>.
- <sup>87</sup> See RRI 2012.
- <sup>88</sup> Government of Colombia. 2016. Constitución Política de Colombia 1991 (Actualizada con los Actos Legislativos a 2016). Art. 102. Available at: <http://www.corteconstitucional.gov.co/inicio/Constitucion%20politica%20de%20Colombia.pdf>; Government of Mexico. 2018. Constitución Política de los Estados Unidos Mexicanos. Art. 27. Available at: [http://www.diputados.gob.mx/LeyesBiblio/pdf/1\\_150917.pdf](http://www.diputados.gob.mx/LeyesBiblio/pdf/1_150917.pdf).
- <sup>89</sup> RRI 2017b.
- <sup>90</sup> Nepal has passed a number of policies and regulations to decentralize decision-making onto user groups (including for irrigation and water supply), as well as broader government decentralization through its Local Self-Governance Act 2055. See Government of Nepal. 1999. Local Self-Governance Act, 2055 (1999). Available at: <https://www.ecolex.org/details/legislation/local-self-governance-act-2055-1999-lex-faoc074262/>.

- <sup>91</sup> The *Zambian Water Resources Management Act* (2011: Pt. III) creates Catchment Councils, Sub-catchment Councils, and Water Users Associations to devolve water planning and management onto lower levels of governance.
- <sup>92</sup> UNDP. 2009. *Capacity Development: A Primer*. United Nations Development Programme, New York. Available at: [https://www.undp.org/content/dam/aplaws/publication/en/publications/capacity-development/capacity-development-a-undp-primer/CDG\\_PrimerReport\\_final\\_web.pdf](https://www.undp.org/content/dam/aplaws/publication/en/publications/capacity-development/capacity-development-a-undp-primer/CDG_PrimerReport_final_web.pdf).
- <sup>93</sup> Ostrom 1990.
- <sup>94</sup> Weinthal, Erika, Jessica J. Troell and Mikiyasu Nakayama. 2014. *Water and Post-conflict Peacebuilding*. Routledge, London. Available at: <https://www.taylorfrancis.com/books/e/9781849775809>.
- <sup>95</sup> CIFOR. 2018. "Enhancing co-benefits from joint forest and water management in Mt. Elgon ecosystem in Uganda." Available at: <https://www2.cifor.org/corporate-news/enhancing-co-benefits-from-joint-forest-and-water-management-in-mt-elgon-ecosystem-in-uganda/>; FAO. 2007. *Forests and Water*. Special Edition of *Unasylva*, No. 229, Vol. 58 2007/4. Available at: <http://www.fao.org/3/a1598e/a1598e00.htm>.
- <sup>96</sup> RRI 2017b: 30.
- <sup>97</sup> Global Witness 2019; TMP Systems and Rights and Resources Initiative. 2016. *Tenure and Investment in Africa: Comparative Analysis of Key Trends and Contextual Factors*. Rights and Resources Initiative, Washington, DC. Available at: [http://rightsandresources.org/wp-content/uploads/2017/01/Tenure-and-Investment-in-Africa\\_Trend-Analysis\\_TMP-Systems-RRI\\_Jan-2017.pdf](http://rightsandresources.org/wp-content/uploads/2017/01/Tenure-and-Investment-in-Africa_Trend-Analysis_TMP-Systems-RRI_Jan-2017.pdf); Rights and Resources Initiative. 2017c. *From Risk and Conflict to Peace and Prosperity: The Urgency of Securing Community Land Rights in a Turbulent World*. Rights and Resources Initiative Annual Review 2016-2017. Rights and Resources Initiative, Washington, DC. Available at: [http://rightsandresources.org/wp-content/uploads/2017/01/From-Risk-and-Conflict-to-Peace-and-Prosperity\\_RRI-Annual-Review-2016-2017\\_English.pdf](http://rightsandresources.org/wp-content/uploads/2017/01/From-Risk-and-Conflict-to-Peace-and-Prosperity_RRI-Annual-Review-2016-2017_English.pdf); Environmental Justice Atlas. 2020. Webpage. Available at: [www.ejatl.org](http://www.ejatl.org).
- <sup>98</sup> See, e.g., Good United Nations Economic Commission for Europe (UNECE). 2015. *Practice Recommendations on Public Participation in Strategic Environmental Assessment*. Prepared under the Protocol on Strategic Environmental Assessment to the Convention on Environmental Impact Assessment in a Transboundary Context (Espoo Convention). United Nations, Geneva. Available at: [https://www.unece.org/fileadmin/DAM/env/eia/Publications/2016/Good\\_Practice\\_Recommendations\\_on\\_Public\\_Participation\\_in\\_Strategic\\_Environmental\\_Assessment/1514364\\_E-Espoo\\_web.pdf](https://www.unece.org/fileadmin/DAM/env/eia/Publications/2016/Good_Practice_Recommendations_on_Public_Participation_in_Strategic_Environmental_Assessment/1514364_E-Espoo_web.pdf).
- <sup>99</sup> Prior notice and consultation are essential tools for communities to protect their water rights in the face of competing claims to their resources. Particularly for rural communities, traditionally marginalized community members, and communities whose identities rest on their autonomy from governments, it can be difficult to achieve meaningful consultation without a certain level of regulatory specificity that prevents these processes from becoming perfunctory undertakings. Bruch, ed. 2002. "The New Public: The Globalization of Public Participation." Environmental Law Institute, Washington, DC. Power differentials between communities and external actors and among members of communities themselves can present formidable challenges to ensuring that consultative processes allow for diverse voices to be heard and take place with communities and their members on equal footing.
- <sup>100</sup> ILO Convention No. 169: Arts. 6, 15, 16; UNDRIP: Arts. 10, 19, 28.
- <sup>101</sup> Government of Colombia. 1991. Ley 21 de 1991 Por medio de la cual se aprueba el Convenio número 169 sobre pueblos indígenas y tribales en países independientes, adoptado por la 76a. reunión de la Conferencia General de la O.I.T., Ginebra 1989. Available at: <http://www.alcaldiabogota.gov.co/sisjur/normas/Norma1.jsp?i=37032>.
- <sup>102</sup> Government of Peru. Ley del Derecho a la Consulta Previa a los Pueblos Indígenas u Originarios reconocido en el Convenio 169 de la Organización Internacional del Trabajo (OIT) (Decreto Supremo No. 001-2012-MC).
- <sup>103</sup> An authoritative decision of the Human Rights Committee of the International Covenant on Civil and Political Rights has determined that FPIC applied to at least some situations in which third party actions impacting water that "substantially compromise or interfere with the culturally significant economic activities of a minority or indigenous community" depends on whether FPIC has been achieved. ICCPR Human Rights Committee. 2009. CCPR/C/95/D/1457/2006. Available at: <https://juris.ohchr.org/Search/Details/1495>.
- <sup>104</sup> World Resources Institute. 2016. "Strengthening Indigenous Land Rights: 3 Challenges to Free, Prior and Informed Consent." Available at: <https://www.wri.org/blog/2016/05/strengthening-indigenous-land-rights-3-challenges-free-prior-and-informed-consent>.
- <sup>105</sup> There are 310 transboundary river basins that supply water for more than 40% of the world's population in 151 countries. Transboundary freshwater database at Oregon State University. Available at: <https://transboundarywaters.science.oregonstate.edu/content/transboundary-freshwater-spatial-database>; UNESCO International Hydrological Programme website: [http://ihp-wins.unesco.org/layers/geonode:transboundary\\_river\\_basins](http://ihp-wins.unesco.org/layers/geonode:transboundary_river_basins); Additionally, "there are now 366 identified transboundary aquifers and 226 transboundary 'groundwater bodies' (as defined in the European Union Water Framework Directive) underlying almost every nation state." International Groundwater Resources Assessment Centre. 2020. "Transboundary Groundwaters." Accessed June 17, 2020. Available at: <https://www.un-igrac.org/areas-expertise/transboundary-groundwaters>.
- <sup>106</sup> See, for example, the UN Watercourses Convention. 1997. Article 7. Available at: <https://www.unwatercoursesconvention.org/>; Declaration of the United Nations Conference on the Human Environment (Stockholm Declaration). 1972. Principle 21. Available at: <http://web.archive.loc.gov/all/20150314024203/http%3A/www.unep.org/Documents.Multilingual/Default>.

asp?documentid%3D97%26articleid%3D1503; Rio Declaration on Environment and Development. 1992. Principle 2. Available at: [http://www.unesco.org/education/pdf/RIO\\_E.PDF](http://www.unesco.org/education/pdf/RIO_E.PDF); Trail Smelter Case (United States v. Canada). 1938 and 1941. Reports of International Arbitral Awards 3: 1905-1982. Available at: [http://legal.un.org/riaa/cases/vol\\_III/1905-1982.pdf](http://legal.un.org/riaa/cases/vol_III/1905-1982.pdf); Convention on the Protection and Use of Transboundary Watercourses and International Lakes (Water Convention). 1992. United Nations Economic Commission for Europe, Helsinki. Article 2. Available at: <https://www.unece.org/env/water/text/text.html>.

<sup>107</sup> International Court of Justice. Gabčíkovo-Nagymaros Project (Hungary v. Slovakia). Judgement, September 25, 1997. Available at: <https://www.icj-cij.org/en/case/92/judgments>.

<sup>108</sup> For example, the Espoo Convention on Environmental Impact Assessment in a Transboundary Context (Espoo Convention) and the United Nations Watercourses Convention (UNWC) both include non-discrimination provisions enabling citizens and communities from any signatory countries' basin to assert rights of appeal against another countries' actions (and in the case of the Espoo Convention, rights of prior notice and consultation) in the context of a transboundary EIA. Espoo Convention 1991.; United Nations Convention on the Law of Non-Navigational Uses of International Watercourses, 21 May 1997, UN Doc. A/51/869, reprinted in 36 I.L.M. 700. Available at: [https://treaties.un.org/Pages/ViewDetails.aspx?src=TREATY&mtdsg\\_no=XXVII-12&chapter=27&clang=\\_en](https://treaties.un.org/Pages/ViewDetails.aspx?src=TREATY&mtdsg_no=XXVII-12&chapter=27&clang=_en).

<sup>109</sup> International Court of Justice. Gabčíkovo-Nagymaros Project (Hungary v. Slovakia). Judgement, September 25, 1997. Available at: <https://www.icj-cij.org/en/case/92/judgments>.

<sup>110</sup> Republic of Zambia. 2016. Constitution of Zambia. Arts. 52(d) and 266. Available at: <http://www.parliament.gov.zm/sites/default/files/documents/general/Bill%20of%20Rights.pdf>; Government of Kenya 2010: Arts. 21(2), 40, 43, and 259(1)(b), and 40((4)(b).

<sup>111</sup> In Colombia, the human right to water was affirmed by the Constitutional Court, which also noted its essential character for the realization of other human rights protected by international treaties (including CEDAW and the UN Convention on the Rights of the Child) and the Colombian Constitution, including rights to life, health, a safe environment, and adequate food and housing. See, for example, Constitutional Court of Colombia. Acción De Tutela para Solicitar Protección del Derecho al Agua (Sentencia T-028/14). 2014. Available at: <https://www.corteconstitucional.gov.co/RELATORIA/2014/T-028-14.htm>. In addition to following the guidelines provided by the UN Committee on Economic, Social and Cultural Rights in General Comment 15, Colombia's constitutional court ruling in this case notes the State's obligation to provide access to drinking water and to all Colombians pursuant to its constitution (Art. 365).

<sup>112</sup> In Subhash Kumar v. State of Bihar, the Indian Supreme Court found that the "right to life guaranteed by Article 21 includes the right of enjoyment of pollution-free water and air for full enjoyment of life." Supreme Court of India. Subhash Kumar v. State of Bihar (A.I.R. 1991, SC 420). Judgement, September 1, 1991. Available at: <https://www.globalhealthrights.org/asia/subhash-kumar-v-state-of-bihar-ors/>. Additionally, the Court held that if anything endangers or impairs that quality of life in derogation of laws a citizen has recourse to Art. 32 of the Constitution for removing the pollution of water or air which may be detrimental to life. Similarly, in Narmada Bachao Andolan v. Union of India and others, the Supreme Court held that the right to water is a fundamental right under Article 21 of the Indian Constitution, although this right was used to justify the mass displacement of tribes from their lands and customary water sources. The Court further observed that water is the basic need for the survival of human beings and is part of the right to life and human rights as ensured in Article 21 of the Constitution, and can be served only by providing sources of water where there is none. Supreme Court of India. Narmada Bachao Andolan v. Union of India (9 SCC 571). October 18, 2000. Available at: <https://www.informea.org/en/court-decision/narmada-bachao-andolan-petitioner-v-union-india-and-others-respondents>.

<sup>113</sup> Supreme Court of Justice of Panama. Magistrado Ponente: Jerónimo Mejía. Acción de Amparo de Garantías Constitucionales interpuesta por la Firma Forense LAC, actuando en representación de Gloria María Chaperón de Ruiz, contra la orden s/n de 2016, emitida por el Instituto de Acueductos y Alcantarillados Nacionales IDAAN. Expediente 1115-16. May 27, 2017.

<sup>114</sup> See endnote 111.

<sup>115</sup> See, for example, Constitutional Court of Colombia. Acción De Tutela para Solicitar Protección del Derecho al Agua (Sentencia T-028/14). 2014. Available at: <https://www.corteconstitucional.gov.co/RELATORIA/2014/T-028-14.htm>.

<sup>116</sup> Republic of Zambia 2016: Articles 52(d) and 266; Government of Kenya 2010: Arts. 43(21(2)), 259(1)(b), and 40((4)(b).

<sup>117</sup> Government of Mexico. 2018: Art. 4, Para. 6.

<sup>118</sup> Government of Mexico 2018.

<sup>119</sup> Government of Kenya 2010: Art. 21(2).

<sup>120</sup> Government of Mali. 1992. Constitution of Mali. Arts. 115-116; Water Charter of the Niger Basin. 2008. Ratified by Mali Law No. 09-21 of July 27, 2009: OJ No. 34 of August 21, 2009.

<sup>121</sup> Government of Bolivia. 2009. Constitución Política del Estado de 2009. Article 20. Available at: [https://www.constituteproject.org/constitution/Bolivia\\_2009.pdf](https://www.constituteproject.org/constitution/Bolivia_2009.pdf).

<sup>122</sup> This analysis did not identify any CWTRs in Morocco.

<sup>123</sup> Notably, the recognition of communities' rights to use freshwater for cultural or religious purposes through water user associations on leased lands in Zambia is dependent on the Statutory Instrument required to legally establish each association.

- <sup>124</sup> Of the 25 CWTRs with a land-water nexus, five CWTRs are premised upon the legal recognition of communities' forest tenure rights. These are: Títulos Comunes para Comunidades Agroextractivistas (Norte Amazónico) (Communal Titles for Agricultural-Extractivist Communities in the Northern Amazonian Region) in Bolivia, Community Forests in Cambodia, Scheduled Tribes and other Traditional Forest Dwellers' Forestland in India, Authorized Community Forests in Liberia, and Community Forest Management Groups in Zambia.
- <sup>125</sup> In one additional CWTR that is not characterized by a land-water nexus, enforcement rights are recognized on a case-by-case basis.
- <sup>126</sup> Republic of Zambia 2011, Art. 6(k).
- <sup>127</sup> Government of Peru. 2010. Decreto Supremo No. 001-2010-AG, Reglamento de la Ley De Recursos Hídricos. Available at: <https://www.ana.gob.pe/publicaciones/ley-no-29338-ley-de-recursos-hidricos>; Government of Peru. 2006. Ley No. 28736. Ley para la protección de pueblos indígenas u originarios en situación de aislamiento y en situación de contacto inicial; Government of Peru. 2005. Ley No. 28611 - Ley General del Medio Ambiente en Perú.
- <sup>128</sup> Personal communication with Luisa Arauz on September 19, 2018.
- <sup>129</sup> Government of Bolivia. 1996. Decreto Supremo No. 28818 del 02 Agosto 2006; Government of Bolivia. 1997. Ley No. 1715 - Ley de 18 de Octubre de 1996 - Ley del Servicio Nacional de Reforma Agraria.
- <sup>130</sup> Government of India 2007: Sec. 4(4); Government of India. 1996. Provisions of the Panchayats (Extension to the Scheduled Areas) Act, 1996. Sec 4(m)(iii). Available at: <https://pesadarpan.gov.in/en>.
- <sup>131</sup> Government of Peru. 2009. Ley No. 29338, Ley de Recursos Hídricos. Available at: <https://www.ana.gob.pe/publicaciones/ley-no-29338-ley-de-recursos-hidricos>.
- <sup>132</sup> Government of Colombia 1978: Arts. 9, 10, 50-52.
- <sup>133</sup> Government of Vietnam. Decree No. 201/2013 ND-CP. Art. 38(1).
- <sup>134</sup> Republic of Zambia 2011.
- <sup>135</sup> Alden Wily et al.: 8.
- <sup>136</sup> In Chile, water is considered a "national asset for public usage" subject to a license regime, which can be exploited by every person under the legal regime established by the Water Code of 1981, through a license known as "right for exploitation" (derecho de aprovechamiento). See Government of Chile, Water Code of 1981, Arts. 5-8, 12-20, 22, 24.
- <sup>137</sup> Republic of Zambia 2011: Art. 63.
- <sup>138</sup> Includes Entidad Prestadora de Servicios de Agua Potable y Alcantarillado Sanitario (EPSA) and Comités de Agua Potable y Saneamiento (CAPYS) in Bolivia; Community Aqueducts in Colombia; Local Communities with Collective Land Titles in Panama; and Native Communities, Peasant Communities, and Water User Organizations of Communities in Peru.
- <sup>139</sup> Government of Kenya 2016a: Arts. Pt. III, Art. 40(4); Government of Nepal. 1997a. Environmental Protection Act (1997). Sec. 3; Government of Nepal. 1997b. Environmental Protection Rules 2054 (1997). Secs. 3, 4(1), 7(2) Available at: <http://www.lawcommission.gov.np/en/archives/category/documents/prevailing-law/rules-and-regulations/environment-protection-rules-2054-1997>; Government of Colombia 2016: Art. 330; Government of Colombia. Ley 99 de 1993 (Organization of the Environmental National System Policy and Management), Art. 76. Available at: <https://www.alcaldiaibogota.gov.co/sisjur/normas/Norma1.jsp?i=297>; Government of Colombia. 2015. Decreto Numero 2041. Art. 15. Available at: <http://www.minambiente.gov.co/images/normativa/app/decretos/34-DECRETO%202041%20DEL%2015%20DE%20OCTUBRE%20DE%202014.pdf>; in Mexico, the Supreme Court of Justice enforced the FPIC requirements of ILO Convention No. 169 in a case in which an Indigenous Community (the Yaqui Tribe) claimed ownership rights over a river (the Yaqui River), stating that prior consultation procedures have to be fully implemented in accordance with criteria set by the Inter-American Court of Human Rights. Supreme Court of Justice of Mexico. Aclaración de sentencia en el Amparo en Revisión 631/2012. August 8, 2013. Available at: <https://www.escri-net.org/es/caselaw/2013/amparo-no-6312012-acueducto-independencia>; Kingdom of Cambodia, Land Law of 2001, NS/RKM/0801/14. Art. 5. Available at: <http://sithi.org/admin/upload/law/Land%20Law.ENG.pdf>; Government of India 1996: Sec 4(j); Government of India. 2013. The Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act 2013. Sec. 4(1 and 5), Sec. 16(5), Sec. 14. Available at: <http://legislative.gov.in/sites/default/files/A2013-30.pdf>.
- <sup>140</sup> Government of Bolivia. 2008. Ley No. 3897, 26 de junio de 2008. Available at: <https://www.lexivox.org/norms/BO-L-3897.html>; Government of Liberia 2009: Sec. 2.2.
- <sup>141</sup> Republic of Zambia 2011: Sec. 63.
- <sup>142</sup> Constitutional Court of Colombia. 2009. Sentencia T-769, October 29, 2009. Citing *Saramaka People v. Suriname* IACHR Series C No 185, IHR 3058 (IACHR 2008). Available at: <https://www.corteconstitucional.gov.co/relatoria/2009/t-769-09.htm>.
- <sup>143</sup> Government of India 2013: Sec. 3; Personal communication with KJ. Joy, Society for Promoting Participative Ecosystem Management (SOPPECOM) on March 16, 2019.
- <sup>144</sup> Republic of Zambia 2011: Art. 4.
- <sup>145</sup> Government of Nepal. 1992. Water Resources Act, 2049 (1992). Sec. 3. Available at: <http://moewri.gov.np/images/category/Water-Resources-Act-2049-english.pdf>.



- <sup>146</sup> Government of Colombia. 2011. Ley 1437 de 2011 - Por la cual se expide el Código de Procedimiento Administrativo y de lo Contencioso Administrativo. Art. 138. Available at: <http://www.suin-juriscol.gov.co/viewDocument.asp?ruta=Leyes/1680117>.
- <sup>147</sup> Constitutional Court of Colombia 2016.
- <sup>148</sup> In addition, the Agreement on the Establishment of the Zambezi Watercourse Commission (ZAMCOM Agreement, 2004, signed by Zambia, Botswana, Malawi, Mozambique, Namibia, Tanzania, and Zimbabwe) provides further recognition of transboundary due process rights held by “the public,” although no specific mention of community rights or the status of all water users is given.
- <sup>149</sup> The Charter of the Niger Basin. 2008. Signed by Mali, Niger, Benin, Chad, Guinea, Côte d'Ivoire, Nigeria, Cameroon and Burkina Faso. Available at: [http://www.abn.ne/attachments/article/39/Charte%20du%20Bassin%20du%20Niger%20version%20finale%20francais\\_30-04-2008.pdf](http://www.abn.ne/attachments/article/39/Charte%20du%20Bassin%20du%20Niger%20version%20finale%20francais_30-04-2008.pdf).
- <sup>150</sup> Treaties analyzed for this report were identified through the “International Freshwater Treaties Database” compiled by Oregon State University's Program in Water Conflict Management and Transformation. For each country, peer reviewers were then consulted to ensure the list of relevant treaties was comprehensive. Oregon State University, Program in Water Conflict Management and Transformation. 2020.
- <sup>151</sup> The judgment of the International Court of Justice in the Pulp Mills on the River Uruguay (Argentina v. Uruguay) case affirmed that transboundary EIAs are a “requirement under general international law” where there is a risk that the proposed activity “may have significant adverse impact in a transboundary context, in particular, on a shared resource.” However, the Court also noted that general international law does not specify the scope of such an EIA. Consequently, it is for “each State to determine in its domestic legislation, or in the authorization process for the project, the specific content of the environmental impact assessment required in each case, having regard to the nature and magnitude of the proposed development and its likely adverse impact on the environment as well as to the need to exercise due diligence in conducting such an assessment...and prior to the implementation of the project.” International Court of Justice. Pulp Mills on the River Uruguay (Argentina v. Uruguay). I.C.J. Reports 2010. Available at: <https://www.icj-cij.org/en/case/135>; see also International Court of Justice. 2015. Certain Activities Carried Out by Nicaragua in the Border Area (Costa Rica v. Nicaragua). I.C.J. Reports 2015. Judgment, December 16, 2015. Available at: <https://www.icj-cij.org/en/case/150>; and International Court of Justice. 2015. Construction of a Road in Costa Rica along the San Juan River (Nicaragua v. Costa Rica). I.C.J. Reports 2015. Judgment, December 16, 2015. Available at: <https://www.icj-cij.org/en/case/152>.
- <sup>152</sup> Although ethnic communities in Morocco continue to practice customary water use and management, rights to water are only legally recognized for individuals, and the Water Law (Loi No. 36-15) of 2016 places all water within the state's public domain. See also Dahir No. 1-16-113 promulgating Law No. 36-15 (Art. 1). Specifically, the Dahir of 9 Ramadan 1331 (August 12, 1913) extinguished all previously existing land and resource rights held by ethnic communities, and establishes a new land titling and registration process that does not include rights to water resources. Thus, while the Dahir of April 27, 1919 recognizes the right of ethnic communities to land for cultivation and grazing, this analysis concludes that communities do not have any recognized rights to freshwater under Moroccan national law. Legislation cited includes: Kingdom of Morocco. 2016. Loi No. 36-15 du 10 aout 2016 relative à l'eau. Available at: <http://www.fao.org/faolex/results/details/en/c/LEX-FAOC178261>; Kingdom of Morocco. 2016. Dahir No. 1-16-113 du 6 kaada 1437 portant promulgation de la Loi No. 36-15 relative à l'eau. Available at: [http://www.onssa.gov.ma/images/reglementation/reglementation\\_connexe/LOI.36-15.FR.pdf](http://www.onssa.gov.ma/images/reglementation/reglementation_connexe/LOI.36-15.FR.pdf); Kingdom of Morocco. 1913. Dahir du 9 ramadan 1331 (12 août 1913) sur l'immatriculation des immeubles (B.O. 12 septembre 1913). Available at: <https://www.ancfcc.gov.ma/media/1161/dahir-12-08-1913-sur-limmatriculation-fonci%C3%A8re-tel-qu'il-a-%C3%A9t%C3%A9-modifi%C3%A9-et-compl%C3%A9t%C3%A9.pdf>; Kingdom of Morocco. 1919. Dahir du 27 avril 1919 organisant la tutelle administrative des collectivités indigènes et réglementant la gestion et l'aliénation des biens collectifs. Available at: [http://www.sgg.gov.ma/BO/fr/1919/bo\\_340\\_fr.pdf](http://www.sgg.gov.ma/BO/fr/1919/bo_340_fr.pdf).
- <sup>153</sup> UN Water. 2020. “Indicator 6.4.2 - Water Stress: Status in different countries (or areas) on Indicator 6.4.2 Level of water stress: freshwater withdrawal as a proportion of available freshwater resources (2017).” Accessed April 27, 2020. Available at: <https://sdg6data.org/indicator/6.4.2>.
- <sup>154</sup> World Resources Institute. 2015. Aqueduct Global Flood Risk Country Rankings. World Resources Institute, Washington, DC. Available at: <https://www.wri.org/resources/data-sets/aqueduct-global-flood-risk-country-rankings>.
- <sup>155</sup> RRI 2017b.
- <sup>156</sup> RRI 2017b: 46.
- <sup>157</sup> For example in Peru, see Government of Peru 2009: Art. 64(2); Government of Peru 2006; Community Aqueducts in Colombia are allowed to carry out the provision of public services, including drinking water and sanitation and do so in the territories they inhabit. Despite the inherent linkages between Community Aqueducts and the local territories of the communities, there does not appear to be any legal requirement that Community Aqueducts' rights be premised on pre-existing land rights. Government of Colombia. 1994. Ley 142 de 1994 Por la cual se establece el régimen de los servicios públicos domiciliarios y se dictan otras disposiciones. Art. 15. Available at: <https://www.alcaldiabogota.gov.co/sisjur/normas/Norma1.jsp?i=2752>; Chile's Ley 19253 provides special protection to waters in Indigenous lands, providing increased security for those water rights but not making them legally dependent on community land rights. Government of Chile. 1993. Ley 19253 establece normas sobre protección, fomento y desarrollo de los indígenas, y crea la corporación nacional de desarrollo indígena. Available at: <https://www.leychile.cl/Navegar?idNorma=30620&idVersion=2017-11-03>.

- <sup>158</sup> Bolivia's Irrigation Law (Supreme Decree 28887) states that the Bolivian State recognizes the right of indigenous, native, and peasant communities to conduct sustainable administration of water resources, respecting their authorities, recognizing their traditions, customs, easements and cultural knowledge about water use and providing a legal guarantee [or legal protections] over water sources used for agricultural and forestry purposes. Government of Bolivia. 2006. Decreto Supremo No. 28887 de 18 de octubre de 2006. Article 5(f). Available at: <https://www.lexivox.org/norms/BO-DS-28887.html>; Additionally, Article 8(z) of the Water and Sanitation law (Law 2066) recognizes uses and customs in the provision of water services. Government of Bolivia. 1999. Ley No. 2066 - Ley de Prestación y utilización de Servicios de Agua Potable y Alcantarillado Sanitario. Available at: <https://www.lexivox.org/norms/BO-L-2029.html>.
- <sup>159</sup> Article 2 of Mali's Water Code enshrines the principle of public water ownership, stating that "water is a public property." The Code specifies in Article 3 that "water can be the object of private appropriation only in conditions fixed by provisions in force and in the respect of customary rights recognized to rural populations and provided that they are not contrary to public interest." Government of Mali. 2002. Code de l'eau, Loi No. 02-006 du 31 janvier 2002. Available at: <http://www.fao.org/faolex/results/details/en/c/LEX-FAOC034988>.
- <sup>160</sup> Peru's Ley de Recursos Hídricos (Ley No. 29338) provides that the State shall recognize and respect indigenous (native and peasant) communities' rights to use water resources within their lands and the watersheds where they are located for survival, cultural, transportation and economic purposes. This right is considered superior to other rights and imprescriptible. Government of Peru 2009: Art. 64.
- <sup>161</sup> The Zambian Water Resources Management Act (2011) is less clear about the role of "traditional water practices as recognized in customary areas," but states that the Water Resources Management Authority (WRMA) must ensure these "are taken into account in the management of water resources" when "beneficial to water resource management" (Sec. 5(2)). Section 6 of the same Law provides due process rights for customary water holders, requiring that the Water Resources Management Authority "shall not allocate any water in a customary area without first consulting the traditional authority in that area and taking into consideration the local customs and practices which are beneficial to water resources management" and that any person seeking a permit for water use in a customary area that is likely to substantially affect the supply of water for domestic and non-commercial purposes for the occupants must gain approval of the traditional authority in that area prior to applying for the permit and put in place alternative means for securing water for the occupants' domestic uses (Sec. 63). Republic of Zambia 2011: Sec. 5(2), 6, 63.
- <sup>162</sup> These 5 CWTRs include the EPSA/CAPYS (Entidad Prestadora de Servicios de Agua Potable y Alcantarillado Sanitario and Comités de Agua Potable y Saneamiento) CWTR in Bolivia; all three CWTRs in Colombia; and Water Resource Users' Associations outside of Community Lands in Kenya.
- <sup>163</sup> National laws establish permitting requirements for communities' rights to use water for commercial purposes in all CWTRs identified in Bolivia, Colombia, Kenya, Mexico, Panama, Vietnam, and Zambia. A portion of CWTRs in Cambodia, Nepal, and Peru also establish such requirements.
- <sup>164</sup> Government of Nepal 1993; Government of Nepal 2000; Government of Nepal 1998.
- <sup>165</sup> Notess, Laura, Peter G. Veit, Iliana Monterroso, Andiko, Emmanuel Sulle, Anne M. Larson, Anne-Sophie Gindroz, Julia Quaedyvlieg, and Andrew Williams. 2017. The scramble for land rights: reducing inequities between communities and companies. World Resources Institute, Washington, DC: 40, 68. Available at: <https://wriorg.s3.amazonaws.com/s3fs-public/scramble-land-rights.pdf>.
- <sup>166</sup> General Comment 15 2003.
- <sup>167</sup> Bruns, Bryan. 2007. "Community Priorities for Water Rights: Some Conjectures on Assumptions, Principles and Programmes." In *Community-based Water Law and Water Resource Management Reform in Developing Countries*, edited by Barbara van Koppen, Mark Giordano and John Butterworth. CABI Publishers, Wallingford, 37-38. Available at: <https://freegeobook.files.wordpress.com/2009/01/1845933265.pdf>.
- <sup>168</sup> Constitutional Court of Colombia 2016.
- <sup>169</sup> Supreme Court of Justice of Mexico. Aclaración de sentencia en al Amparo en Revisión 631/2012. August 8, 2013. Available at: <https://www.escri-net.org/es/caselaw/2013/amparo-no-6312012-acueducto-independencia>.
- <sup>170</sup> Supreme Court of India. 2019. Wildlife First & Ors. V. Ministry of Forest and Environment & Ors. February 13, 2019. Available at: [http://www.indiaenvironmentportal.org.in/files/file/Forest-Rights-claims-SC-Order\\_13-Feb-2019.pdf](http://www.indiaenvironmentportal.org.in/files/file/Forest-Rights-claims-SC-Order_13-Feb-2019.pdf).
- <sup>171</sup> See, e.g., CEO Water Mandate. 2015. Guidance for Companies on Respecting the Human Rights to Water and Sanitation: Bringing a Human Rights Lens to Corporate Water Stewardship. Available at: <https://pacinst.org/wp-content/uploads/2015/01/Guidance-on-Business-Respect-for-the-HRWS-1.pdf>.
- <sup>172</sup> Jones, P., Hiller D. and Comfort, D. 2015. Water stewardship and corporate sustainability: a case study of reputation management in the food and drinks industry. *J. of Public Affairs*, Vol. 15(1).
- <sup>173</sup> RRI 2017b.
- <sup>174</sup> See, e.g., International Conference on Water and the Environment. 1992. The Dublin Statement on Water and Sustainable Development 1992; Beijing Declaration 1995.
- <sup>175</sup> RRI's tenure data on indigenous, Afro-descendant, and community women's forest rights demonstrates that the "vast majority of statutory laws regulating 78 percent of LMIC forest worldwide fail to adequately protect the rights of indigenous and rural women to



property, inheritance, community membership, community-level governance, and community inheritance,” with women’s rights to govern and inherit rights to community forests receiving the lowest level of adequate, gender-specific recognition. Many of the rights captured in this dataset extend broadly to terrestrial resources. RRI 2017b.

<sup>176</sup> Republic of Zambia 2011: Art. 6(k).

## Table 3 Endnotes

a. **Regarding all CWTRs in Kenya:** Indigenous Peoples and local communities with legally recognized rights to Registered and Unregistered Community Land under the 2016 Community Land Act (CLA) also have lawful customary rights to water resources on that land, as the Constitution’s definition of “land” includes “the water resources thereon or thereunder (Constitution, Art. 260).” Regardless of registration, customary land rights are given equal legal status to freehold and leasehold tenure under the CLA (CLA Pt. II, Sec. 5(3)). Communities’ customary water rights therefore vest with land rights under the CLA.

However, pursuant to the 2016 Water Act and the 2016 Constitution, water is held in public trust by the national government for the people of Kenya (Constitution, Art. 62; Water Act 2016, Pt. II, Sec. 5). Therefore, the recognized water rights of communities on community lands include exclusive use and governance rights, but do not amount to ownership rights. As water is a public good, rights to use, access and manage water are generally granted through a permitting process (Water Act, Sec. 36, et seq.). Exemptions from permit requirements are restricted to “the abstraction or use of water, without the employment of works, from any water resource for domestic purposes by any person having lawful access to the water resource (Water Act, Sec. 36).”

The Water Act does not explicitly address whether, under the Community Land Act, communities’ rights to use water for livelihood, small-scale productive, and commercial purposes within their community lands require a water permit. This analysis interprets Kenyan national law to exempt both communities and other landowners from permit requirements associated with small-scale productive and livelihoods water uses, but to maintain permit requirements for commercial water uses (those producing revenue beyond use for households) (Personal correspondence with Liz Alden Wily, February 17, 2019). This interpretation is supported by the clear intention of the CLA to enable communities to use land “sustainably and productively” and to enable the access, use, and co-management of water resources in accordance with customary rights to those resources (CLA Secs. 20(2)(c) and Sec. 35).

b. **Regarding the Livelihood and Commercial Use Sub-indicators for both Les terres agricoles des communautés rurales (Rural Communities’ Agricultural Lands) and Les pasteurs (Pastoralists) in Mali:** According to Articles 18 and 19 of Loi No. 02-006 du 31 janvier 2002, portant Code de l’eau, all water uses other than domestic uses are subject to a concession (permitting) regime. However, the law establishing this concession regime has yet to be passed in Mali, and peer review feedback suggests that the law’s objective is only to regulate non-customarily managed territories. Consequently, this analysis concludes that given the current ambiguity of Malian law on this question (and the permit exemption under Articles 76 and 77 of the Water Code), small-scale livelihood and commercial rights exist for an unlimited duration of time and are not presently subject to a permit (personal communication with Mohamed Coulibaly, September 26, 2018).

**Regarding all Use Sub-indicators for Les pasteurs (Pastoralists) in Mali:** There is a hierarchy of rights for pastoral communities that pertains to certain pastoral water points. This hierarchy is applied only to pastoral communities and not to any specific type of water use.

c. **Morocco:** While the Moroccan Dahir of April 27, 1919 recognizes the ethnic communities’ right to land for cultivation and grazing, this analysis concludes that communities do not have any recognized rights to freshwater under Moroccan national law. Therefore, no community-based water tenure regimes have been identified in Morocco.

Although ethnic communities in Morocco continue to practice customary water use and management, rights to water are only legally recognized for individuals, and the Water Law of 2015 places all water within the state’s public domain. See also Dahir 1-16-113 of 6 Kaada 1437 (August 10, 2016), promulgating Law No. 36 -15 on the water, Art. 1. Moreover, the Dahir of 9 Ramadan 1331 (August 12, 1913) extinguished all previously existing land and resource rights held by ethnic communities and established a new land titling and registration process that does not include rights to water resources.

While members of ethnic communities can join Agricultural Water User Associations under the Agricultural Water Users Association (AWUA) Act of 1990, such organizations are typically formed by the government or, in a minority of cases, by individuals. In addition, the AWUA Act only permits agricultural water users associations to operate on agricultural lands, which excludes the oases and mountainous areas where ethnic communities live and steward natural resources in Morocco (personal communication with Abdallah Herzenni, January 5, 2019). While the government does compensate individual members of ethnic communities for the loss of expropriated water resources that communities rely on, no compensation is allocated to communities as a unit (Dahir of 1914, and personal communication with Abdallah Herzenni, January 5, 2019).

d. **Regarding the Cultural/Religious Use Sub-indicator for Water Users’ Associations on Leased Lands in Zambia:** This indicator received a “Case-by-Case” assessment, as the recognition of cultural and religious use rights will vary depending on whether they are

included in the statutory instrument that creates the Water User Association (Water Resources Act, Art. 24(4)(d)); personal communication with Michael Mutale, March 21, 2019).

**e. Regarding all Use Sub-indicators for Indigenous Communities in Cambodia:** All of Indigenous Communities' customary resource use rights (including water rights) within their registered lands—as well as the customary resource use rights of communities living within or adjacent to a forest concession—are explicitly prioritized over the rights of forest concessionaires (Law on Forestry (2003), Art. 15).

**Regarding all Use Sub-Indicators for Community Protected Areas in Cambodia:** Pursuant to the Protected Areas Law (2008), the Ministry of Environment has allocated part or parts of sustainable use zones to communities residing within or adjacent to a protected area as a community protected area. The agreement between the community and the Nature Conservation and Protection Administration entitles the community to establish regulations to govern access to and use of natural resources including freshwater (Protected Areas Law (2008), Arts. 25 and 28). Community Protected Areas Agreements are limited in duration to 15 years, and thus all Use Sub-indicators received a “partial credit” assessment. The provisions of the Protected Areas Law override the licensing requirements and exemptions of the Water Resource Management Law (2007) as they were enacted at a later date (Personal correspondence with Tep Neth, December 28, 2018).

**Regarding the Livelihood Use Sub-indicator for both Indigenous Communities and Community Forests in Cambodia:** The permitting exemption in Article 11 of Cambodia's Water Resource Management Law (2007) extends to most livelihoods and small-scale productive uses. However, it is possible that some water uses under this study's Livelihood Use Sub-indicator are not included in the exemption's scope and would therefore require a permit under Article 12 of the Water Resource Management Law (2007). The Livelihood Use Sub-indicator has therefore received a “full credit” assessment for both CWTRs, while noting the exception that very few livelihoods uses could require a permit.

**Regarding the Transferability Indicator for both Indigenous Communities and Community Forests in Cambodia:** The “full credit” assessment reflects the fact that community-based commercial use rights (and a small minority of livelihood use rights) are legally transferable under Cambodian national law, which restricts the transfer of water rights to those that are subject to a license (Water Resources Management Law (2007), Art. 15).

**f. Regarding the Commercial Use Sub-indicator for both Scheduled Tribes and Other Traditional Forest Dwellers' Forestland, and Scheduled Tribes Outside of Forestland, in India:** The Supreme Court case *Hindustan Coca-Cola Beverages (P) Ltd. vs Perumatty Grama Panchayat* (2005 (2) KLT 554) decided, inter alia, on the ability of a Gram Panchayat to regulate a corporation owning private land through licensing water use. When the company's activities resulted in severe pollution to the local groundwater source, the Panchayat attempted to revoke the license. The court ordered the Panchayat to reinstate the license, calling into question its ability as a local government body to regulate the water resources in its jurisdiction pursuant to the Constitution (Art. 243 and Amendment 73) and the Public Trust Doctrine (as enunciated by the Supreme Court). This decision was challenged in multiple civil appeals, but the Supreme Court did not address these issues because the company had closed the plant, thus leaving the questions of law open.

**Regarding the Domestic Due Process Sub-indicator for Scheduled Tribes and Other Traditional Forest Dwellers' Forestland, and Scheduled Tribes Outside of Forestland, in India:** While many larger-scale projects trigger the environmental impact assessment (EIA) requirements pursuant to India's EIA regulations, a 2006 EIA Notification restricted the categories of projects that require an environmental clearance and associated EIA (EIA Notification, S.O. 1533). Relevant projects that no longer require a clearance include: hydroelectricity projects with capacity below 25 megawatts; all flood control projects and water supply projects (for drinking water and industrial water needs); irrigation projects with a command area of less than 10,000 hectares; river front development projects; and river dredging projects. The 2006 Notification further restricted public consultation requirements for certain categories of projects, no longer requiring public consultations during the environmental clearance stage for: modernization of any river valley projects (hydroelectric dams) of any size; projects or activities located within industrial estates or parks approved by the concerned authorities; expansion of roads and highways not involving acquisition of land all building/construction projects/area development projects and townships; and all projects or activities concerning national defense and security or involving other strategic considerations as determined by the Central Government (EIA Notification, S.O. 1533, 2006).

Additionally, some States have passed amendments to the Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act (2013) (RFCA) in line with the 2015 amendments (later revoked) to that Act, which exempted certain categories of projects (including, e.g., projects involving national security or defence; certain infrastructure projects; and projects in development corridors) from consultation and social impact assessment requirements. While sub-national law is outside the scope of this study, communities in these States would have further restricted due process rights in cases where these projects could impact their water rights.

**Regarding the Rulemaking and Planning and Management Sub-indicators for Scheduled Tribes Outside Forestland in India:** The Provisions of the Panchayats (Extension to the Scheduled Areas) Act, 1996 (“PESA”) expands the recognized authority of the Panchayats to all Scheduled Areas and delegates authority to Panchayats “at the appropriate levels” for “planning and management of minor water bodies” in the Scheduled Areas (PESA, Sec. 4(j)). In practice, many of the scheduled areas contain medium and large-sized water bodies that may not be governed by Panchayats constituted under PESA. While the legal recognition of community-level freshwater governance rights are dependent on the size of the water body in question, no legal definition of “minor water body” is provided (Personal correspondence with KJ Joy, October 10, 2018).

g. **Regarding all CWTRs in Nepal:** Each of the three types of water user associations identified under Nepal's national laws (Irrigation Users' Association, Drinking Water Users' Associations, and Water Consumers' Organizations) are regulated and registered distinctly, and therefore form distinct CWTRs. In order to have legally recognized rights to water for irrigation, drinking water, and other forms of freshwater uses, a community would have to undergo separate registration processes to establish three associations (Irrigation Rules, 2056 (2000), Water Resource Rules, 2050 (1993), Water Resource Rules, 2050 (1993)).

**Regarding the Domestic Due Process Sub-indicator for all CWTRs in Nepal:** In Nepal, communities' due process rights depend on the scale of proposed projects or developments, as only larger-scale proposals trigger the environmental impact assessment (EIA) process that includes requirements for prior notice, consultation and administrative appeal (Environmental Protection Rules, 2054, 1997, Schedule 2). An appeal right exists for smaller-scale projects that do not trigger an EIA, but it is restricted to the judicial process by which compensation is sought.

**Regarding the Commercial Use Sub-indicator for Water Consumers' Associations:** While limited-duration commercial water permits are required for micro-hydro water user associations (which are included in the definition of Water Consumers' Associations under Arts. 2-3 of the Electricity (Hydropower) Act 2049 (1992)), all other commercial water permits are issued for an unlimited duration of time (Personal correspondence with Dil Raj Khanal, March 5, 2019).

h. **Regarding the Cultural/Religious, Domestic, and Livelihood Use Sub-indicators for Community Grassroots Irrigation Organizations in Vietnam:** While the Cultural/Religious, Domestic, and Livelihood Use Sub-indicators for this CWTR received "full credit" assessments and are not generally subject to a procedural requirement, the Law on Water Resources (Art. 44(2)) and Circular No. 27/2014/TT-BTNMT (Art. 4) does require registration for groundwater extraction if groundwater is extracted at a rate exceeding 10m<sup>3</sup>/day and at a depth greater than 20m in specified areas where groundwater levels have declined excessively. The law does not state that registration must be renewed, nor does it include a time-period for which registration is valid.

i. **Regarding all CWTRs in Bolivia:** Pursuant to Ley 2066 (Ley de Prestación y utilización de Servicios de Agua Potable y Alcantarillado Sanitario), the uses and customs of Indigenous Peoples, original peoples, and peasant communities for water and sanitation services provision are recognized. These uses are recognized, respected and protected according to the Constitution (Ley 2066, Art. 50), and are understood as "the communal and social practices for the use, exploitation and management of hydric resources to provide water services, based in natural authorities and norms and procedures applied by Original and Indigenous Peoples, peasant and Indigenous communities and peasant labor unions and organizations (Ley 2066, Art. 8(2))." While the same law specifies that the rights recognized pertain to service provision, recognition of domestic and other use rights by Indigenous Peoples, original peoples, and peasant communities is inferred from these provisions (Personal Correspondence with Oscar Campanini and Sanford Berg, December 2018).

**Regarding Transboundary Due Process for all CWTRs in Bolivia:** Bolivia's Ley 3897, 26 de junio de 2008 makes all 46 articles of UNDRIP (United Nations Declaration on the Rights of Indigenous Peoples) enforceable by adopting its principles under national law. Under Article 32(2-3) of Ley 3897, Indigenous Peoples, original peoples, and peasant communities have rights of prior notice, consultation, and appeal with respect to the development, utilization and exploitation of water and other resources, including in the transboundary context. However, these provisions are not binding on the actions of other countries sharing transboundary basins with Bolivia, and these countries are guided by their own national legal requirements that are outside the scope of this study. In the absence of a specific treaty requirement requiring due process for communities in Bolivia who rely on a shared transboundary basin, the response to this threshold question is "no."

**Regarding the Rulemaking Indicator for Entidad Prestadora de Servicios de Agua Potable y Alcantarillado Sanitario (EPSA) and Comites de Agua Potable y Saneamiento (CAPYS) (Drinking Water and Sanitary Services Entity Providers and Drinking Water and Sanitation Committees) in Bolivia:** In cases where water sources like rivers, watersheds, natural pools and other sources are used by various EPSA/CAPYS or other entities, those water users must sign agreements and covenants that express the rules applying to their shared use of the resource in question. Consequently, in many cases, the rulemaking rights of EPSA/CAPYS will be subject to this additional procedural requirement (uia de solicitud de licencias y registros (aprobada con RAR AAPS No. 515/2017), Section K:5).

j. **Regarding Pueblos Indígenas (Indigenous Communities) in Chile:** Article 64 of Ley 19253 (Establece normas sobre proteccion, fomento y desarrollo de los indigenas, y crea la corporacion nacional de desarrollo indigena) provides for "special protection" to the waters of specific Indigenous Aymaras and Atacameñas communities. Under this law, waters within these communities' lands, such as river channels, canals, and internal watersheds, will be considered assets under their property and for their usage, without prejudice of rights of third parties registered pursuant to the Water Code. According to peer reviewer Florencia Ortuzar, these legal protections do not constitute separate CWTRs, but rather act as a procedural guarantee concerning the availability of water for these communities when allocations are made by the government (Personal correspondence with Florencia Ortuzar, March 11, 2019).

k. **Regarding the Cultural/Religious and Domestic Use Sub-indicators for all CWTRs in Colombia:** Most Indigenous Peoples and local communities would not require a permit for cultural/religious or domestic water uses that satisfy basic needs. However, communities' and other rightsholders' access and use of water without a permit "must be made without establishing deviations, or using machinery or apparatus, or stopping or diverting the course of the water, or deteriorate [sic] the channel or the margins of the current, or alter or contaminate [sic] water in a way that makes it impossible for third parties to use it." See Article 2.2.3.2.7.1 of Decreto 1076 de 2015 Por medio del cual se expide el Decreto Único Reglamentario del Sector Ambiente y Desarrollo Sostenible and Article 86 of Decreto 2811 de 1974. In practice, some Indigenous, Afro-descendant, and local communities in Colombia do divert water channels in order to satisfy their

water needs for domestic or cultural/religious use purposes. In these situations, permits are required for the diversion of water, rather than the use of that diverted water (Personal correspondence with David Marin, July 23, 2018). Consequently, this analysis concludes that a permit is not required for domestic or cultural/religious water uses, and that these recognized use rights exist perpetually.

<sup>l.</sup> **Regarding the Livelihood Use Sub-indicators for all CWTRs in Mexico:** The majority of livelihood water uses by persons and households (such as irrigation of gardens and trees, or the feeding of domesticated animals) are considered to be domestic uses under Mexican law; consequently, they are exempt from water license requirements and prioritized over others uses (Constitution, Art. 4; Ley de Aguas Nacionales, Arts. 17 and 22). While the Livelihood Use Sub-indicator for all CWTRs in Mexico receives “full credit” because these rights are recognized for an unlimited duration of time, it should be noted that a minority of livelihood water uses may fall outside the scope of the license exemption and thus require a time-limited license.

**Regarding the Exclusion Indicator for Ejidos and Comunidades (Agrarian Communities in Mexico):** Ejidos and Comunidades, which are subject to all provisions applicable to Ejidos under Article 107 of Ley Agraria, can exclude those without state-issued licenses from using water on their lands. Third parties can, however, obtain water licenses through legally mandated processes on Ejidal or Agrarian Community lands (personal communication with Claudia Gomez, Sept. 20, 2018).

**Regarding the Domestic Compensation Sub-Indicator for Ejidos and Comunidades (Agrarian Communities) in Mexico:** This sub-indicator was given a “Case-by-Case” score as Ejidos and Agrarian Communities—who are subject to all provisions applicable to Ejidos under Article 107 of the Agrarian Law—who are illegally deprived of their lands or waters can seek judicial protection before agrarian courts to request the restitution of their lost assets (Ley Agraria, Art. 49). However, Ejidos and Agrarian Communities could not receive compensation from parties who engage in lawful actions that deprive either community of waters located within their lands (personal communication with Claudia Gomez, Sept. 20, 2018).

<sup>m.</sup> **Regarding all Use Sub-indicators for all CWTRs in Panama:** The “full credit” assessment across all Use Sub-indicators reflects the fact that water use rights for all purposes, including those by Indigenous Peoples and local communities, may be obtained through a permit (temporary) or a concession (temporary or permanent) (Art. 32 of Decreto Ley No. 35 de 22 de septiembre de 1966). Because water use rights can potentially be legally recognized on a permanent basis, and because in practice temporary permits are seldom imposed upon Indigenous Peoples and local communities, this analysis concludes that community-based freshwater use rights across all CWTRs in Panama exist perpetually (personal communications with Ronel Solis, September 3, 2018 and Felix Wing Solis, September 7, 2018).

**Regarding all Use Sub-indicators for both Tierras indígenas tituladas fuera de Comarcas (Titled Indigenous Lands Outside of Comarcas) and Tierras indígenas no tituladas fuera de Comarcas (Non-titled Indigenous Lands Outside of Comarcas) in Panama:** As discussed above, Indigenous Peoples with titled lands may collectively request water permits/concessions premised on their community land title, which is obtained based on their traditional possession/occupation of that land. Traditional authorities chosen by these communities act as the legal representative of the permit/concession (Ley 72 de 23 de diciembre de 2008 Que establece el procedimiento especial para adjudicación de la propiedad colectiva de tierras de los pueblos indígenas que no están dentro de las comarcas; Decreto Ley No. 35 de 22 de septiembre de 1966, and Decreto Ejecutivo No. 70 de 27 de julio de 1973).

**Regarding the Domestic, Livelihood, and Commercial Use Sub-indicators for Asociaciones de usuarios de agua de comunidades locales sin títulos de propiedad (Water User Associations of Local Communities without Land Titles) in Panama:** Notably, the recognized domestic, livelihood, and commercial water use rights of local communities without land titles that form Water User Associations is predicated on the creation of a Junta Administradora de Acueductos y Alcantarillados Rurales (JAAR). JAARs can be created in communities with fewer than 1,500 persons (pursuant to Article 61 of Ley No. 77 de 28 de diciembre de 2001 “Que reorganiza el IDAAN”) and due to Panama’s small population, this analysis assumes that all local communities whose recognized rights are recognized through this CWTR fit this requirement.

**Regarding the Rulemaking and Planning/Management Sub-indicators for Asentamientos Campesinos con Títulos de Propiedad Colectiva (Peasant Settlements with Collective Land Titles) in Panama:** The procedural requirement for these two indicators relates to the need for a community to incorporate as a Junta Administradora de Acueductos y Alcantarillados Rurales (JAAR) and obtain legal personhood in order to realize freshwater rulemaking, planning, and management rights (Article 61 Ley No. 77 de 28 de diciembre de 2001).

<sup>n.</sup> **Regarding the Domestic and Cultural/Religious Use Sub-indicators for all CWTRs in Peru:** While the domestic and cultural/religious use rights of Pueblos indígenas u originarios en situacion de aislamiento y en situacion de contacto inicial (Indigenous Peoples in Isolation and Initial Contact Situations) and Comunidades Nativas (Native Communities) are prioritized under the law, this prioritization only applies within their titled lands. Ley No. 28736, 2006 - Ley para la protección de pueblos indígenas u originarios en situación de aislamiento y en situación de contacto inicial establishes that Pueblos indígenas u originarios en situacion de aislamiento y en situacion de contacto inicial hold all rights bestowed to Comunidades Nativas, which includes rights to use water resources within their lands and the watersheds where they are located (Ley No. 29338, 2009 - Ley De Recursos Hídricos). Pursuant to Ley No. 28611 (Art. 72), Comunidades Nativas and Comunidades Campesinas (Peasant Communities) shall have preferential access for the sustainable exploitation of natural resources within their lands, provided these lands are titled to the communities. The freshwater use rights of Pueblos indígenas u originarios en situacion de aislamiento y en situacion de contacto inicial and Comunidades Nativas, including those communities who form water user organizations, are thus prioritized.

**Regarding the Domestic Due Process and Domestic Compensation Sub-indicators for Pueblos indígenas u originarios en situacion de aislamiento y en situacion de contacto inicial (Indigenous Peoples in Isolation and Initial Contact Situations) in Peru:** Indigenous Peoples in Isolation and Initial Contact Situations would need to exercise their domestic due process and compensation rights through a representative in order to maintain their identity as Indigenous Peoples who remain in isolation. This analysis acknowledges the particular challenges faced by Indigenous Peoples in Isolation and Initial Contact Situations in realizing these rights.

## Box 2 Endnotes

- <sup>i</sup> Mali. Loi No. 2017- 001 du 11 avril 2017, portant sur le foncier agricole. Articles 3, 11-12.
- <sup>ii</sup> Government of Liberia. 2018. An Act to Establish the Land Rights Law of 2018, Republic of Liberia. Art. 33(2)(ii). Available at: <https://iredd-lr.org/wp-content/uploads/2018/10/Signed-Land-Rights-Act.pdf>.
- <sup>iii</sup> Government of Liberia 2018: Art. 36(6).
- <sup>iv</sup> Personal Communication with Dil Raj Khanal, Common Property Lawyer, March 5, 2018.
- <sup>v</sup> Khanal 2018.
- <sup>vi</sup> Khanal 2018.
- <sup>vii</sup> UN Human Rights Council. 2017. *Report of the Special Rapporteur on the human rights to safe drinking water and sanitation on his mission to Mexico*. Available at: <https://www.refworld.org/docid/59cb9ed34.html>.
- <sup>viii</sup> See Burgos, Roberto, 2017. The Current Reform of the Chilean Water Code: An Attempt to Contest the Commoditised Treatment of Water. April 28. TLI Think! Paper 82/2017. Available at: SSRN: <https://ssrn.com/abstract=3049153>; BNAmericas. 2018. “Chile reactivates push for water code reform.” November 30. Available at: <https://www.bnamericas.com/en/news/waterandwaste/chile-reactivates-push-for-water-code-reform>.
- <sup>ix</sup> Government of Kenya. 2016a. Water Act (Act No. 43 of 2016). Available at: [http://kenyalaw.org/kl/fileadmin/pdfdownloads/Acts/WaterAct\\_No43of2016.pdf](http://kenyalaw.org/kl/fileadmin/pdfdownloads/Acts/WaterAct_No43of2016.pdf).

