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AN INTRODUCTION TO WATER TENURE

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Front cover photo: In Kampong Thom Province, Cambodia, community members work together to protect and manage their community fish refuge (CFR), bodies of water that provide dry season sanctuaries for wild fish, using best management practices shared through the Feed the Future Rice Field Fisheries II project. Photo by Ou Andeng /USAID.

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Contents

What is Water Tenure?

The concept of water tenure is relatively new, with the Food and Agricultural Organization of the United Nations (FAO) initiating discussions on it in 2013 at an expert consultation on water governance and the role of tenure and rights in coping with agricultural water scarcity. Following the consultation, FAO published a discussion paper in 2016, which conceptualized water tenure as, "**the relationship, whether legal or customarily defined, between people, as individuals or groups, with respect to water resources**" (FAO, 2016). Water tenure focuses on the use of freshwater resources from both groundwater and surface water bodies, like rivers and streams (FAO, 2016).

The concept of water tenure encompasses the diverse rights, rules, customs, and practices (including formal, informal, legal, and illegal) that shape how individuals and groups access and use water resources at different scales, also referred to as *water tenure arrangements* (FAO, 2016; FAO, 2020).

This brief is designed to help USAID Missions, Operating Units, and implementing partners understand the concept of water tenure in the context of programs that seek to improve food and water security and address climate change. This includes USAID programming associated with the U.S. Government's Global Food Security Strategy (GFSS), the U.S. Government's Global Water Strategy (GWS), and USAID's Climate Strategy. Each of these strategies recognizes the critical role of improved water resource governance and management in meeting its objectives. This brief highlights how incorporating water tenure considerations can contribute to improving water resource governance and management.

Key Takeaways

1. Understanding water tenure can help inform and improve water governance and management strategies, given the concept's emphasis on water users and the many ways they manage and use water resources.

2. Analyzing "on-the-ground" relationships among water users and water resources, for instance by using USAID's toolkit[1] on water security assessments, can help identify existing water tenure arrangements and strengthen or revise them as needed to reduce inequalities and facilitate more sustainable and equitable water resource governance and management.

3. A number of USAID's approaches to strengthening land and resource tenure can be adapted to water tenure.[2] These include empowering marginalized and/or underrepresented groups and people in vulnerable situations to develop more fair and equitable water tenure arrangements, improving the legal and policy enabling conditions to support these arrangements, and strengthening the capacity of local people and institutions to implement and enforce them.

4. Harmonizing water tenure arrangements and governance structures with forest and land tenure regimes can help identify and address inconsistencies, ambiguities, and contradictory provisions that may undermine a given tenure arrangement and complicate water resource governance and management or contribute to conflict.

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1 The toolkit on water security assessments, developed by USAID's Sustainable Water Partnership (SWP, 2016-2022), is one of several toolkits that help guide practitioners through the five steps of SWP's Water Security Improvement process (USAID, 2022a). Please see Box 1 for more information.

2 A comprehensive guide to these tools and approached may be found at: https://land-links.org/tools-and-mission-resources/

Background

Water security is crucial to achieving global development priorities, such as sustainable economic growth, improvements in public health and food security, climate resilience, political stability, and disaster risk reduction, as recognized by the United Nations Sustainable Development Goal 6, "Ensure access to water and sanitation for all" (United Nations, 2018). The agricultural sector is the largest user of freshwater resources, accounting for 70 percent of withdrawals worldwide (U.S. Government, 2021). Over the last several decades, anthropogenic pressures, such as urbanization, population growth, climate change, pollution, and changes in consumption patterns have led to insecure supplies of water in many parts of the world. In particular, climate change is expected to have significant impacts on the water cycle and reduce water availability in many countries, with risks cascading through food, energy, and environmental systems that can lead to decreased food production as well as increased food prices, migration, and civil conflict, among other impacts (World Bank, 2016).

Declining access to water disproportionately impacts poor and marginalized groups and exacerbates rising inequalities. For instance, wealthier landowners often control water resources for activities, such as agriculture. This may decrease the availability of water for smallholder farmers and reduce their productivity. Across many low- and middle-income countries, women and girls have the primary responsibility of collecting and managing water at the household level; water scarcity can increase the time needed to collect water and limit the time they have available for other activities, such as education and income generation (United Nations, 2018). Women and girls can also be exposed to gender-based violence during water collection, especially when water sources are a significant distance from their homes (USAID, 2021a).

Failures in the governance and management of water resources are among the primary reasons for many of the water challenges facing communities today (United Nations, 2018; UNESCO, 2019). Specific factors include weak or fragmented governance structures, inadequate investments in water infrastructure, lack of political will to meet different types of water demands, and insufficient institutional and human capacity (UNESCO, 2019; USAID, 2021b). Furthermore, marginalized and underrepresented groups, which may include women, youth, and Indigenous Peoples, often face significant barriers to participating in decision-making related to water resources. For instance, even as the crucial role of women and girls in the management of water resources is increasingly recognized, water governance and decision-making continue to be male dominated in many communities and therefore, may not meet the specific needs of women and girls (UNESCO, 2019). Strengthening governance and management of freshwater resources is crucial to achieving water security, particularly for marginalized and underrepresented groups (FAO, 2016; USAID, 2022b).

BOX 1:

USAID's toolkit on water security assessments

USAID's Sustainable Water Partnership (SWP) mechanism developed a series of toolkits to guide practitioners through the Water Security Improvement (WSI) process, which focuses on empowering communities to assess and address water risks (USAID, 2022a). The toolkit on water security assessments* emphasizes a multidisciplinary approach to gather information on water resources, water governance, and stakeholders (USAID, 2017). The toolkit offers guidance on stakeholder analyses, demographic surveys to understand water use, and water sector governance assessments–all key steps in understanding water tenure arrangements within a target geography. These tools can be applied and adapted to ensure that real world relationships between water users and water resources, including customary, informal, and illegal water tenure arrangements, are identified to better inform more equitable, sustainable governance and management of water resources. USAID/Cambodia and SWP partnered to apply the toolkit in the Stung Chinit watershed, including hydrological modeling, stakeholder analysis, an institutional assessment, and collection of demographic information from different communities in the basin. SWP then worked with stakeholders to prioritize water security actions that balance the competing water needs of fishers and rice farmers, key to supporting food security for the community.

* #2 in the series, developed in 2017 and updated in 2021

How Does Water Tenure Relate to Water Resource Governance and Management?

Understanding water tenure, with its focus on real-world relationships between water users and water resources, can help improve water governance and management. USAID's toolkit on water security assessments (see Box 1) provides tools and approaches to collect information on water users, the physical aspects of water resources, governance frameworks, and the rules and norms different water user groups follow to access water within a geographic area. All of these resources can help identify opportunities to enhance equitable, secure, and sustainable water resource governance and management. For example, the toolkit can help map a community's water tenure arrangements for water access and use for food security, livelihoods, and other domestic purposes, including formal water rights (see Box 2) as well as customary, informal, and even illegal arrangements. This mapping, in turn, can shed light on power dynamics, rules and practices, and how secure water users feel with current arrangements, especially users from marginalized and underrepresented groups (FAO, 2016). This type of information is crucial in helping policymakers make context-appropriate changes to administrative, policy, and legal frameworks to avoid ambiguity and conflicts, codify informal agreements to manage or access water resources, reform formal water agreements to promote equitable access, and modify existing policies and laws or introduce new ones, as needed, to improve water governance and management (Stockholm International Water Institute, 2021; FAO, 2020).

Water tenure can be important to integrate in approaches such as integrated water resource management (IWRM), which is defined by the Global Water Partnership as, "a process which promotes the coordinated development and management of water, land, and related resources, in order to maximize the resultant economic and social welfare in an equitable manner without compromising the sustainability of vital ecosystems" (United Nations, 2014). For instance, incorporating an analysis of water tenure arrangements within a broader IWRM strategy can provide important information, such as whether current tenure arrangements balance the needs of water users with the health of the natural environment, how water access rights could change

seasonally or during drought periods, how linked these arrangements are to land ownership and tenure, which may create incentives related to sustainable or unsustainable use, and how flexible these arrangements are to changing water demands and allocation patterns. Tools to improve land and resource governance, such as land use planning, can also help communities and resource governance organizations better monitor and plan their use of land and water resources. Water accounting, which refers to an analysis of the hydrological cycle and water supply demand and use within a given geographic setting, is often a key element of IWRM programming that provides information on current and projected differences between water demand, supply, and use. Analyzing water tenure can complement water accounting by highlighting the real-world, "on-the-ground" relationships and arrangements that determine water use (FAO, 2016). Integrating this practical understanding into IWRM may also help promote nature-based solutions and reduce conflicts.

BOX 2:

What are water rights?

Water rights refer to different legal rights to use water resources, which can be conferred through formal laws, permits, licenses, etc. The terms "water rights" and "water tenure" are sometimes used interchangeably, but in general, water tenure focuses on water users, but also extends further to include the uses of water that may be customary, informal, or illegal. Types of water rights include the right to use water, the right to exclude non-rights holders and protect water resources from third parties, the right to sell, lease, or transfer water rights, and the right to manage certain aspects of water resources, such as allocation (FAO, 2020).

PHOTO: KELLEY LYNCH/USAID

Recent Research on Water Tenure

Given that the concept of water tenure is relatively new, organizations like FAO, the Rights and Resources Initiative, and the Environmental Law Institute have conducted exploratory research over the last few years to better understand it. Based on this research, FAO has established a preliminary typology of water tenure arrangements, including some that confer water rights (FAO, 2016). Several examples from FAO's typology are highlighted below; more detailed descriptions of these examples can be found in the annex.

- **Customary water tenure:** A tenure arrangement whereby the right to take and use water resources is regulated by customary, or local, law. Customary law is generally unwritten and originates from the rules of the community in which it is applied.

- **"Traditional" land-based formal water rights:** Links water rights to land ownership. In general, land-based formal water rights rise automatically from laws tied to land tenure.

- **"Modern" permit-based water rights:** Based on modern water laws or water codes that provide permits for most uses involving the impoundment and/or withdrawal of water, except for small-scale household and subsistence needs.

- **Water rights created through direct investment contracts:** A tenure arrangement in which water rights are derived through an investment contract between a host country government, ministry, or agency and an investor, usually foreign.

- **Informal water tenure:** Refers to situations in which users access water resources through informal or even illegal arrangements. Authorities and administrative bodies are often aware of and tolerate these arrangements for a variety of reasons, such as legal systems that are not adapted to deal with these situations.

To better understand the status of community-based water tenure, specifically freshwater (surface and groundwater) rights, the Rights and Resources Initiative and the Environmental Law Institute analyzed 39 water tenure arrangements in 15 countries in Africa, Asia, and Latin America, with a focus on Indigenous Peoples and local communities (Rights and Resources Institute and Environmental Law Institute, 2020). The researchers found that 25 of the 39 arrangements analyzed linked recognition of land rights with freshwater rights, which they refer to as the "land-water nexus." These 25 tenure arrangements were found to consistently provide more adequate protection for freshwater rights compared to the other legal frameworks that predominantly relied on separate water laws. However, the analysis also found significant legislative gaps and inconsistencies, even within the "land-water nexus" tenure arrangements, which kept these groups from realizing their full suite of water rights. For instance, 31 of the 39 tenure arrangements did not provide recourse for communities to enforce rules against third parties who interfered with the community's freshwater rights or breached community-based rules. Among the arrangements where water tenure was not linked to land tenure, the researchers also highlighted the need to harmonize tenure regimes between the forestry, land, and water sectors, particularly given the ecological connections between forested watersheds and freshwater provision.

When the researchers focused on women's rights to freshwater and legal protection for women, they found very little recognition of these rights and protections. Only eight frameworks protected women's rights to participate in decision-making processes related to community lands and freshwater resources and five explicitly recognized women's rights to govern freshwater resources. Given women's significant responsibilities as the primary suppliers and managers of water for household needs, these findings reveal a clear gap between their roles and their recognized rights, which needs to be addressed by strengthening protections for women's rights to govern and use freshwater resources.

Water Tenure and Links with USAID Programming

USAID has a long and successful history of promoting and improving resource tenure within its land and natural resource management programming. This work has helped to reduce inequalities and promote women's empowerment, enhance food security and sustainable economic growth, and strengthen community resilience. USAID can harness this experience and lessons learned to integrate water tenure as an element of good water governance and management strategies, especially as climate change and other anthropogenic pressures threaten water security.

Water tenure considerations are generally more relevant to USAID programming in rural and some peri-urban areas, where people usually have direct access to water sources; in contrast, access to affordable water services and delivery is more of the priority in urban settings, especially among the poor. This is not to say that water tenure has no bearing on urban water users; for instance, effective water tenure arrangements can help improve the management of natural resources, including watersheds, that are critical to the provision of adequate amounts of water to cities.

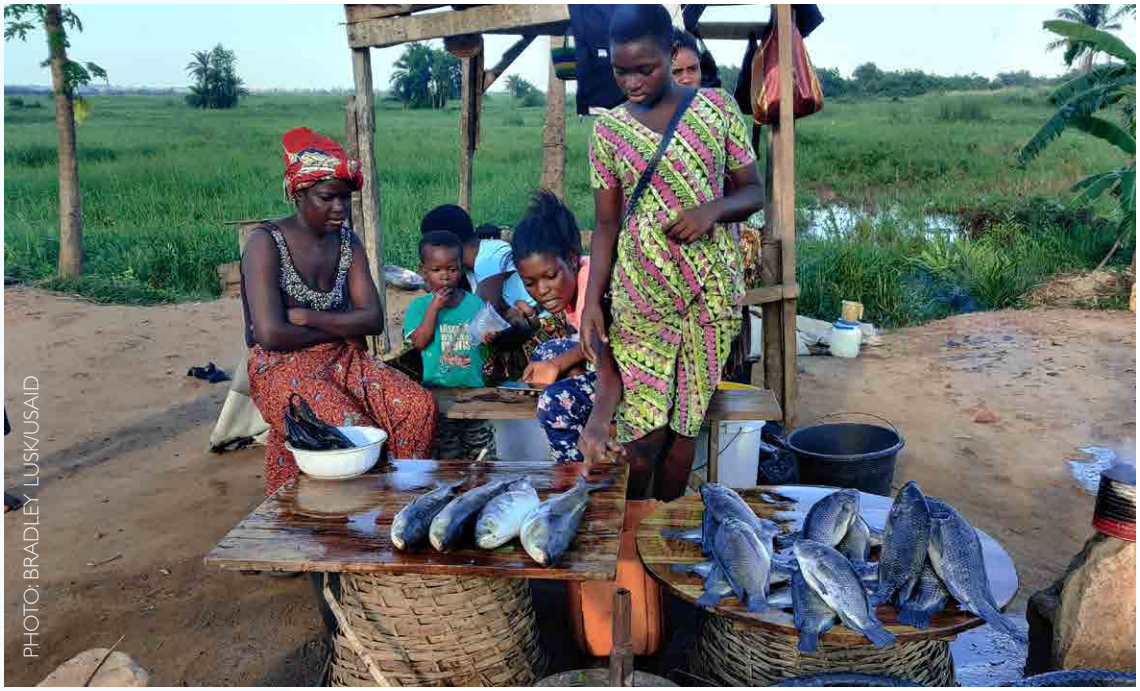

PHOTO: BRADLEY LUSK/USAID

Why should USAID consider incorporating water tenure in its programming?

- Understanding water tenure through a systematic analysis of the relationships between water users and water resources can help programs better assess the current situation on the ground in their operating contexts and uncover real-world practices and barriers. This is key to finding remedies to improve equity in access to water resources and to reduce discriminatory practices and the unsustainable use of resources. For instance, when piloting a case study in India to explore the concept of water tenure, FAO found that some lower castes and other socially marginalized groups were prohibited from using certain water sources (FAO, 2016).

- Understanding existing water tenure arrangements within a given geographic setting, including informal or illegal water use, is crucial to help governments, donor agencies, implementers, and other stakeholders move beyond the "law and order" aspects of these types of water use and start to understand the power dynamics, motivations, and socio-economic causes that drive them. This understanding should extend to land tenure arrangements, including conservation easements, which may be in place to protect water sources from exploitation or contamination. This can facilitate water governance that more accurately reflects the reality on the ground, for instance by codifying effective informal agreements (FAO, 2016).

- An analysis of water tenure can provide practical information to inform, facilitate, and strengthen IWRM, water allocation planning, nature-based solutions, and other water governance and management strategies and approaches. For instance, engaging Indigenous Peoples in an analysis of water tenure can help programs understand traditional knowledge and practices that these communities have used to sustainably manage water resources over time and, when relevant, integrate this information into their strategies.

- Given that politicians and policymakers are often familiar with the concept of land tenure and land tenure reforms have advanced social objectives in many countries, likening water tenure to land tenure may help build similar support from politicians and policymakers for water sector reforms that benefit diverse stakeholders (FAO, 2016).

How does water tenure relate to USAID's GFSS, GWS, and Climate Strategy programming?

Global Food Security Strategy (GFSS): The GFSS recognizes water insecurity as a significant threat to the productivity and sustainability of food and agriculture systems, with water-related risks particularly impacting women, girls, and other marginalized and underrepresented groups. Addressing water insecurity is critical to increasing the resilience of food and agricultural systems, particularly in the face of climate change and other shocks and stresses. Water-related issues are highlighted throughout the GFSS, most specifically through cross-cutting intermediate Result #6, "Improved water resource management"; water resources planning and governance are identified as key approaches that can help achieve this result (U.S. Government, 2021). Incorporating water tenure as an element of GFSS-related programming can provide implementers with crucial information, such as whether existing water tenure arrangements meet the needs of different water users with regards to agriculture, food preparation, and related activities that support food security (See Box 3 on the next page). In particular, an analysis of real-world water tenure arrangements can highlight economic and power dynamics that favor certain water user groups, for instance, wealthy landowners and agribusinesses, which may decrease water availability for smallholder farmers, women, Indigenous Peoples, and other marginalized and underrepresented groups (FAO, 2016; FAO, 2020).

Global Water Strategy (GWS): Water tenure is highly relevant to each of the four GWS strategic objectives (SO), as secure water tenure arrangements can help improve water resource governance, conservation, and management (SOs #1 and #3), equitable access (SO #2), and prevent conflict related to water (SO #4). The GWS recognizes that marginalized and underrepresented groups, particularly women and girls, and the poor are among the most difficult to reach to address water problems (USAID, 2022b). Incorporating water tenure as an element of water governance and management in GWS-related programming can provide implementers with crucial information to help inform water sector reforms that benefit diverse water users, including marginalized and underrepresented groups. For example, an analysis of water tenure can shed light on the varying challenges different water groups may have accessing water, whether they are allocated enough water to meet basic and livelihood needs, how the policy and regulatory environments facilitate or hinder their access to water resources, how disputes and conflict between user groups are addressed, and who makes decisions related to allocating and managing water resources.

USAID's Climate Strategy: The Climate Strategy recognizes the critical role of water security in strengthening climate resilience (Intermediate Result 1.2) and highlights improving water resource management as key to achieving this result (USAID, 2022c). Incorporating water tenure as an element of water resource management in USAID's climate change programming can provide implementers with crucial information on whether current water tenure arrangements help or hinder how different water user groups deal with climate change impacts. For instance: How secure do different water users feel with current water tenure arrangements in the face of increasing water scarcity? Are current arrangements flexible enough to address changes in the water cycle? How do these arrangements prioritize different uses of water during droughts? How do these arrangements handle potential conflicts driven by water scarcity?

What are some tools and approaches USAID can use to integrate water tenure in its programming?

USAID's toolkit on water security assessments toolkit (see Box 1) can be a good starting point when integrating water tenure into USAID programming. The toolkit provides a variety of tools and approaches that can be tailored to the local context to provide specific types of data and information that are relevant to a particular program. In addition, USAID has made significant investments in strengthening land and resource tenure in recent years through collaborations with governments, other donors, the private sector, and civil society, yielding several approaches that can be adapted to water tenure, including:

- Working with governments and other stakeholders to improve the legal and policy enabling conditions to support fair and equitable water tenure arrangements that are inclusive of women, youth, Indigenous Peoples, and other marginalized and underrepresented groups.
- Increasing the capacity of local institutions to implement water tenure arrangements in a fair and equitable manner and when needed, to mitigate and resolve disputes that arise from these arrangements.
- Helping women, youth, Indigenous Peoples, the poor, and other marginalized groups advocate for and support reform of existing water tenure arrangements that disadvantage them through outreach and awareness raising campaigns, water rights extension workers, access to justice and legal aid centers, and other empowerment strategies.
- Leveraging remotely sensed data, geospatial analysis, and mobile technologies to engage communities in data collection and analysis for decision support. This could include addressing water and land tenure data gaps, improving water use monitoring, and land use planning.
- Engaging relevant private sector actors as partners to support sustainable water resource management and to ensure that the needs of local water users are not adversely or unfairly impacted by private sector interests.

BOX 3:

How can water tenure considerations strengthen USAID's food security activities?

- Participating in an analysis of water tenure arrangements can help give a voice to smallholder farmers, women farmers, Indigenous Peoples, and other marginalized farmers' groups to facilitate more equitable and secure access to water resources for agricultural activities, particularly as climate change decreases water availability in some regions.
- A water tenure analysis can help identify critically important customary and other informal water tenure arrangements that support food security, so these arrangements can be brought to the attention of authorities and recognized by formal water governance policies and laws.
- Water tenure considerations can help identify different user groups that are dependent on the same water resources for food security, for example sedentary farmers and nomadic pastoralists, to inform the development of secure, flexible tenure arrangements for multiple groups and to prevent future conflicts.
- Secure water tenure arrangements can incentivize farmers and other stakeholders to invest in water infrastructure, which in turn can improve their productivity and resilience to climate change and other shocks. Secure water tenure arrangements may also spur private sector investments in irrigation schemes, water storage facilities, and other infrastructure that leads to more efficient food production.

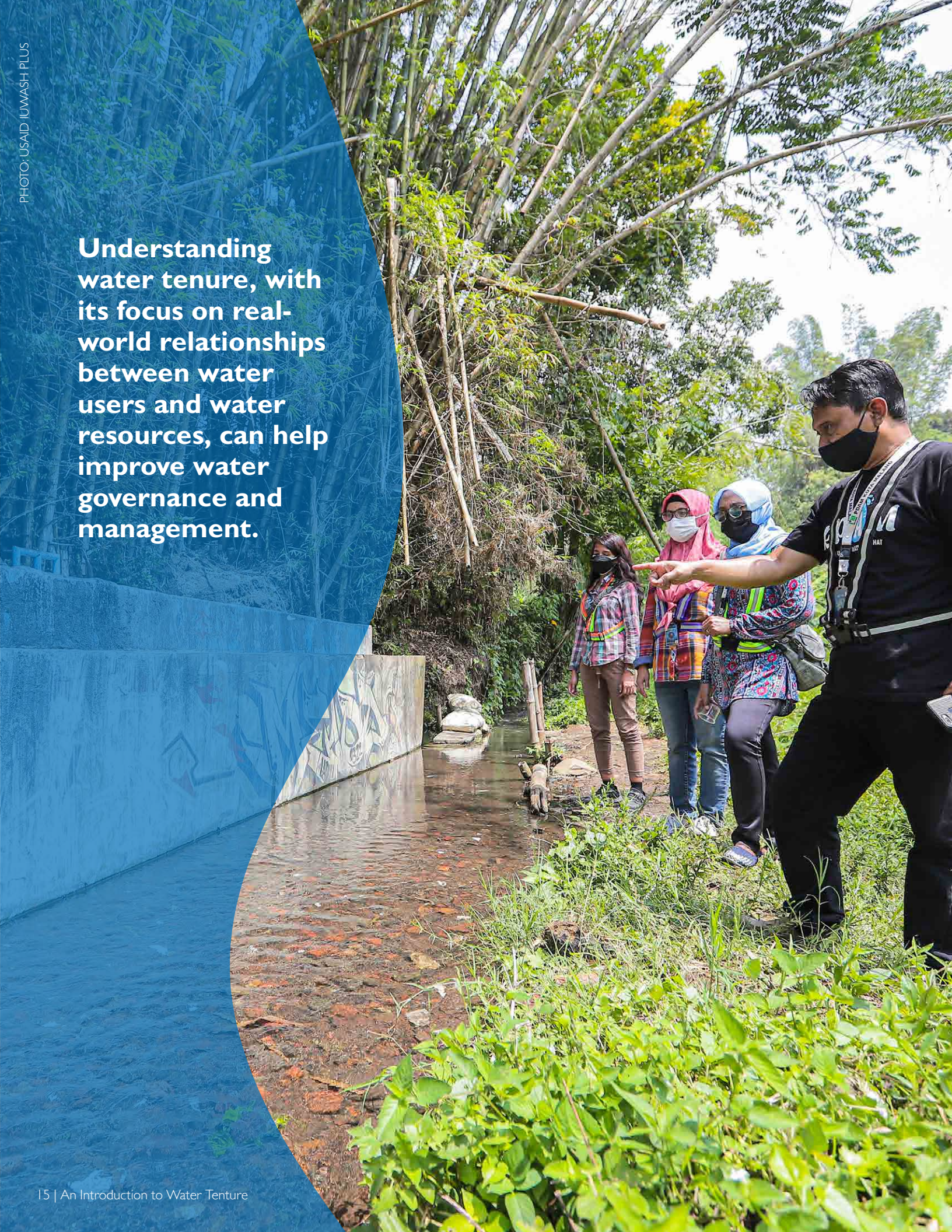

PHOTO: USAID IUWASH PLUS

Understanding water tenure, with its focus on real-world relationships between water users and water resources, can help improve water governance and management.

ANNEX:

Summary of the FAO Typology of Water Tenure Arrangements

Water tenure arrangements can originate from legislation, regulation, decrees, judicial decisions, and customary and religious practices and laws. In areas without legislative or customary tenure arrangements, de facto systems may also exist. In its research on water tenure arrangements, FAO found some broad categories of different water tenure and water rights regimes found around the world, several of which are highlighted below (FAO, 2016):

Customary water tenure

In many countries, particularly in sub-Saharan Africa and parts of Latin America, water tenure in rural areas is regulated by customary, or local, law. Customary law systems generally take a holistic approach to natural resource tenure, including land, forests, fisheries, and water with an emphasis on the needs of a community rather than individuals. While customary water tenure arrangements can be flexible and resilient, they are also increasingly at risk from external pressures on water resources that are not subject to these arrangements. For example, customary law typically applies within defined geographical areas. If a river or stream flows through such an area, customary law will regulate both water tenure and rights to fish and other aquatic resources within that customary jurisdiction. The challenge for customary law arises in cases where upstream activities with significant impacts on downstream water availability and quality, such as mining or the construction of a hydropower dam or an irrigation scheme, take place in an area that is subject to different rules.

"Traditional" land-based formal water rights

In many areas, water rights have traditionally been linked to formal land rights. Landowners had, subject to various restrictions, the right to withdraw and use water from resources on or beneath their land. In addition, the 'riparian doctrine,' which exists in many common-law jurisdictions, entitles landowners living adjacent to water bodies, like rivers, to use reasonable amounts of water from these sources. In general, land-based formal water rights arise automatically from laws tied to land tenure and do not require any kind of separate administrative process. By linking water rights to land ownership, land-based formal water rights can disadvantage groups that have traditionally faced barriers owning land including the poor and women. Furthermore, the advent of modern technologies such as deep-well drilling and electric vacuum pumps, can also allow landowners to extract large amounts of water and deplete aquifers, with adverse consequences for other water users who are also dependent on these resources.

"Modern" permit-based water rights

Recognizing some of the disadvantages of traditional land-based formal water rights, many countries have adopted comprehensive, modern water laws or water codes that provide permit-based water rights. These permits are required for most uses involving the impoundment and/or withdrawal of water, except for individual small-scale household and subsistence needs. Permits create legally binding water rights that are formally separate from land rights and specify the quantity of water that can be withdrawn and/or used (often as a share of the available flow). Due to their time limitations, permit-based water rights can be renegotiated and reallocated at the end of each term, which provides flexibility to respond to variations in water demand or supply, for instance due to climate change. A major downside of permit-based water rights systems is that they can be costly to develop and implement and require a minimum level of government capacity for monitoring, enforcement, and safeguarding of water quality.

Water rights created through direct investment contracts

Another type of water tenure derives rights through an investment contract between a host country government, ministry, or agency and an investor, typically foreign. In recent years, many low- and middle-income countries, especially in Africa, have seen increased private investment in agriculture by granting foreign agribusinesses long-term land concessions. In countries that do not have permit-based water rights systems in place, investors will often seek to include rights over water resources on the land in the contract. Water tenure created through these contracts is often granted legal protection through international investment treaties. Hydropower projects, power stations, and other water-related industrial investments can also be funded by investment contracts that create explicit long-term water rights.

When these investment contracts take place in areas that are already experiencing water stress and/or food insecurity, there is a very real risk of exacerbating these conditions, especially if the food grown through these contracts is exported. In a global analysis of over 1,300 land deals, researchers found that the majority of deals took place in countries experiencing either high levels of malnourishment or high levels of water scarcity; one third of deals took place in countries experiencing both (Dell'Angelo et al., 2018). Because investment contracts are considered commercial agreements, they are often negotiated without the opportunity for local stakeholders to offer inputs. Increasing transparency and allowing participation of a broad group of stakeholders during contract negotiations can help maximize positive outcomes and minimize the risks to local populations.

Informal water tenure

Water users may also access resources through informal arrangements that are not legally recognized and may even be illegal. In these situations, some of which persist for years, authorities and administrative bodies tolerate these users because it is convenient to do so or because their legal system is not adapted to deal with them. For example, the water administration in southern Tunisia has long tolerated the illegal use of groundwater for growing dates; however, the administration stresses that these water users have no formal rights over the specific water resources. In the Indian state of Maharashtra, difficulties in the implementation of the 1976 State Irrigation Act have led to unregulated water diversion and theft for many years.

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