Capturing Hydropower's Promise

REPORT SERIES

A Guide to Local Benefit Sharing in Hydropower Projects

In partnership with:

iha
international hydropower association

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Contents

Boxes, Figures, and Tables

Abbreviations and Acronyms

CSR Corporate Social Responsibility

ESIA Environmental and Social Impact Assessment

ESMP Environmental and Social Management Plan

FPIC Free Prior and Informed Consent

KWH Kilowatt hour

LADF Local Area Development Fund

LRP Livelihood Restoration Plan

MW Megawatt

MWH Megawatt hour

NGO Nongovernment Organization

RAP Resettlement Action Plan

Note: All dollar amounts are U.S. dollars unless otherwise indicated

Foreword

Hydropower, the most mature of all renewable technologies, holds tremendous promise in helping to fulfill surging global demand for electricity and in meeting the Sustainable Development Goals. It can help connect the unconnected with reliable and modern electricity for the first time, lighting up the darkness so children can do schoolwork at night, entrepreneurs can start a new business, and women can feel safe returning home from a day's work. It can power the machinery of economic opportunity and innovation. And it can enable a cleaner and more equitable future.

That's why IFC invests in hydropower as an important part of our $7 billion energy portfolio. As a leading global financier of renewables, we have funded hydropower projects with a collective generation capacity of more than 8 gigawatts, along with a growing portfolio of investments in other renewables sectors, such as wind and solar.

Over the years, we have learned that the economic benefits of hydropower projects need to be weighed carefully against complex environmental and social considerations. Hydropower projects can be located in environmentally sensitive areas with significant impacts related to physical and economic displacement of communities. Examples of projects that have struggled to mitigate all these risks are well known. Learning from these experiences, growing evidence shows how meaningful community engagement and strong community relations can make a real difference in helping hydro projects achieve their intended business and development results. Current good practice includes several factors to secure and maintain constructive community relations: appropriate risk assessments, project siting, management of environmental and social impacts, transparent and respectful company behavior, and distribution of benefits.

This Report Series is focused on the latter—local benefits—and on sharing the lessons learned from hydropower projects around the world. The reports—a collection of case studies, good practices, and guidance—contribute to the existing knowledge base, given that benefit-sharing practices in the sector are relatively new and continue to evolve. The information provided is grounded in extensive research and based on the experiences of public and private developers as they implemented benefit-sharing programs.

Let's acknowledge up front that hydropower projects are highly complex technical endeavors, involving multiple stakeholders and varying perspectives within local communities. Given the circumstances, identifying perfect or permanent benefit-sharing solutions that satisfy all involved is unlikely. Even when positive results occur, future setbacks may happen. What will distinguish the most responsible developers is the extent to which they proactively recognize and address challenges, the transparency with which they engage stakeholders, how well they internalize lessons learned, and their willingness to share these lessons in an overall effort to improve benefit-sharing practice.

For IFC's part, by gathering collective experience and promoting emerging good practices, we hope that more public and private developers will succeed in capturing hydropower's promise, meeting national electrification goals while ensuring that local communities can share in the benefits and fulfill their development aspirations. The ongoing challenge is exacerbated by the COVID-19 pandemic that began in early 2020 and continues at this writing.

On behalf of IFC, I extend my thanks to the many hydropower developers, community members, and other stakeholders who willingly shared their insights and experience, forming the basis for this important series of publications. I also thank the government of Japan for its generous support of this research. Finally, I encourage you to be in touch. We want to hear your feedback and additional experiences. We seek to better understand various perspectives and to align interests and actions to help the world make a just and equitable shift to greener energy and sustainable livelihoods.

Bertrand Heysch De la Borde
Director, Global Energy, Mining, and Infrastructure Advisory, IFC

Executive Summary

Local benefit sharing is an important aspect of hydropower project developers' and operators' deliberate efforts to support the aspirations of project-affected people and communities—beyond direct impact mitigation. To learn more about what hydro projects are doing and how they are embedding local benefit sharing into their operations, IFC undertook an extensive two-year study. Funded through generous support from the government of Japan, the study involved field visits to project sites around the world, interviews with project personnel and community stakeholders, and desk research to capture the current state of practice. The result of this research is *Capturing Hydropower's Promise: Report Series on Benefit Sharing in Hydropower.* It is a compendium of good practices and case studies, along with guidance for developers on how to initiate and implement their own local benefit-sharing programs.

A Guide to Local Benefit Sharing in Hydropower Projects outlines the process for developing a local benefit-sharing strategy and provides guidance on implementation, based on the experiences from public and private hydropower projects. It offers guidance on **how to engage with communities and how to ensure that all community stakeholders—including women, youth, Indigenous Peoples, and the most vulnerable—** have fair and equitable access to the benefits provided. It details ways to **optimize implementation through monitoring, good governance, and adaptive management.** Accompanying the guidance are dozens of examples from public and private hydropower projects.

The Guide also features an assessment of commonly used benefit-sharing mechanisms, broken down into four main categories: **revenue sharing and shared ownership, public services and infrastructure, local skills and livelihoods, and environmental stewardship.** The assessment gives readers a better understanding of the value associated with each mechanism, as well as the risks associated with deploying it. It offers

recommendations for use, along with examples of how the various mechanisms are being deployed by projects.

The final section looks at the very real challenges associated with implementing benefit-sharing programs and provides suggestions on how to mitigate the challenges.

Case Studies in Local Benefit Sharing in Hydropower Projects features seven in-depth case studies on how local benefit-sharing approaches are put into practice along with lessons learned from these experiences. The case study on the **Wuskwatim Generating Station in Canada** explores joint ownership with the Indigenous community. The case study on **ISAGEN**'s operations in **Colombia** looks at deploying a multi-faceted benefit-sharing program in a conflict-affected context. The material on **East Africa's Rusumo Falls** hydroelectric project highlights the complexities in designing a transnational program so that communities in three countries can share in the benefits. The case study on the expansion of **Theun-Hinboun in Lao PDR** shows how the developer's extensive presence in and engagement with local communities yielded robust lessons for the design of the forward-looking benefit-sharing program.

This volume also includes a look at the common practice among **hydropower developers in Nepal** to issue local shares to individuals. This case study explores lessons learned to date about this practice. The case study on **SN Aboitiz Power** details the evolution of the company's community development program in the Philippines, where it operates four hydropower plants.

It concludes with the story of the **Tina River Hydropower** project in the Solomon Islands. This case study details the project's journey to embed strong environmental and social safeguards as well as a benefit-sharing program in the earliest planning stages of the project.

Based on the entire report series, here are 10 insights essential to local benefit sharing practice in the hydropower sector.

10 INSIGHTS on Local Benefit Sharing in Hydropower Projects

1 BEYOND MITIGATION AND COMPENSATION, BUT LINES BLUR

Benefit sharing is generally understood as a package of deliberate measures taken by hydro developers that allow local communities to share benefits from a hydro project, over and above required mitigation measures. In practice, however, it can be challenging to determine with confidence the clear lines between mitigation and benefit sharing.

2 FOUR BROAD CATEGORIES OF BENEFIT-SHARING PROGRAMS

Hydropower developers and operators deliver benefit-sharing programs targeting local communities in four broad categories:

revenue sharing and shared ownership

public services and infrastructure

local skills and livelihoods

environmental stewardship

3 ADDRESSES RANGE OF SUSTAINABILITY AND RISK MANAGEMENT CONSIDERATIONS

A growing number of public and private developers undertake benefit sharing to address social license and business risks. Doing so can help manage project costs and schedule. It also can enhance reputation, profitability, and sustainability. For example, in **Nepal**, the project development agreement for the **Upper Trishuli hydropower project** requires implementation of benefit-sharing activities such as royalty sharing, rural electrification and a local shares mechanism. When Indigenous communities voiced their expectations about participation in local shares during a formal consent process initiated by the project, this mechanism was incorporated as a specific benefit for them as well.

4 COMMITMENT TO LONG-TERM VIEW

Given the 40-year-plus life cycles of hydropower projects and the complexities in tackling development challenges, the long-term approach to benefit sharing is key. It takes into account the entire project cycle and changes in the project's risk profile. It also helps to manage stakeholder expectations and concerns as they evolve. Hydro projects with a long-term view typically emphasize benefit-sharing that fosters community self-reliance and creation of lasting benefits, so progress continues even after the company exits.

5 CAREFUL DUE DILIGENCE IN DESIGNING BENEFIT-SHARING STRATEGY AND PLANS

A well-conceived benefit-sharing strategy can increase the likelihood of benefit sharing programs' success. But hydropower projects are site-specific, so the development of benefit-sharing strategies and plans must account for their own unique circumstances. Project developers should rely on existing information, additional studies, and community engagement to ensure a thorough understanding of local context. Success in integrating benefit sharing into hydropower projects comes from thinking of these issues early on, before the project is constructed/ in operation.

6 PORTFOLIO APPROACH TO BENEFIT SHARING

The portfolio approach emphasizes a selection of benefit-sharing programs with a mix of short- and long-term objectives, deployed either concurrently or at different project stages. This helps optimize the developer's ability to address project risks and local priorities as they evolve. In deciding how to allocate limited funds among various community programs, clear focus and community engagement are critical. Experience suggests that companies that focus on locally relevant initiatives in a few, well-defined areas tend to achieve greater impact and recognition than companies that spread resources across many different types of activities.

7 INCREASED OUTREACH TO WOMEN AND OTHER UNDERSERVED GROUPS

Hydro projects may impact women differently, requiring a view of community challenges and actionable solutions through the gender lens. This means addressing barriers that restrict women's access to the building blocks of independence: employment, education, entrepreneurship, and asset ownership, among others. When benefit-sharing programs are designed with meaningful participation from women and other underserved groups, such programs tend to be more inclusive and yield benefits across all segments of the community. For example, through extensive engagement with women and other local stakeholders, the **Tina River project** in the **Solomon Islands** developed a gender action plan with measures to mitigate potential negative impacts on women. It also details ways to ensure that men and women have equal opportunities to share in project benefits.

8 COMMUNITIES AS PARTNERS

Given their lengthy lifespans, hydro projects can play an important role in enabling local development. However, there are real risks that local communities can grow over-reliant on the project and that community programs will not be sustainable. Involving local stakeholders in program planning and implementation can result in stronger local uptake and better long-term outcomes. For example, in **Colombia**, **ISAGEN**'s largest program calls for local communities to decide on their priorities, develop proposals, and implement projects. ISAGEN also involves participating communities in a formal, two-year cycle of classwork and practical workshops to build program development knowledge and skills.

9 ADAPTIVE MANAGEMENT OF BENEFIT-SHARING PROGRAMS

Delivery of benefit sharing is complex. Hydropower developers and operators report multiple challenges, such as risks of elite capture and issues with determining eligibility. These can reduce the effectiveness of benefit sharing initiatives. In addition, over time, agreements might lose their relevance, given changing development or climate dynamics. By incorporating the principles of adaptive management, with target-setting, results monitoring, learning, and course corrections as needed, developers can create a strategy that evolves as conditions change. In the **Philippines**, a review of **SN Aboitiz Power**'s community consultation programs uncovered several opportunities for improvements. Subsequent changes ensured that community projects more clearly reflect short- and long-term local development priorities, and better align with business goals and objectives.

10 TRANSPARENCY ACROSS THE BENEFIT-SHARING LIFE CYCLE

Local stakeholders need a thorough understanding of benefit-sharing commitments, eligibility criteria, and delivery models. They also must know how to engage with a project if concerns and issues arise. Proactive, consistent, and locally appropriate communications help to strengthen overall governance, reduce elite-capture risks, and build trust. Best practice calls for embedding transparency and disclosure in all aspects of benefit-sharing program planning and implementation. For example, given the complexity of the **Rusumo Falls hydro project**, involving **three East-Central African nations**, a comprehensive communications strategy was incorporated from the outset. Reviewed regularly and revised accordingly, the strategy is informed by annual community surveys that gauge perceptions of the project and measure success of outreach efforts.

Introduction

Global demand for clean, reliable, and affordable electricity is growing, particularly in developing countries. Hydropower is playing a major role in expanding energy access. It can provide abundant low-carbon energy, an array of critical grid services, and—unlike other renewables—electricity storage. It can support the electrification and broader energy transition agenda, along with the growth of renewables like wind and solar.

Projects such as the UT-1 hydropower project in Nepal, which will generate low-cost and reliable power and set new environmental and social benchmarks, demonstrate the sector's potential to drive development and make a difference, particularly to the lives of the poor.[1]

Learning from the past to enhance environmental and social performance

While hydropower provides numerous benefits to society at large, historically, many projects had significant social and environmental impacts. Large storage hydropower developments often led to flooding of lands, physical and economic displacement of communities, and adverse impacts to river ecosystems. Although these social and environmental impacts vary by project size, technology, and other local conditions, management of environmental and social complexities is a widely-acknowledged and common challenge. Addressing this challenge effectively is critical to ensure overall project sustainability.[2,3]

Valuable lessons from the past experiences with dams development were presented in early 2000s, in the World Commission on Dams' landmark report. The report encourages governments and project developers to ensure that "adversely affected people are recognized as first among the beneficiaries of the project."[4]

International standards and regulatory frameworks also have been evolving—as has the approach of financial institutions. IFC put in place its Performance Standards on Environmental and Social Sustainability to guide good practice on environmental and social risk management in its investments. The Performance Standards have helped to facilitate convergence of good practice in project finance. Currently 116 financial institutions in 37 countries have adopted the Equator Principles, a risk framework that is based on IFC's Performance Standards. In 2016, the World Bank adopted a new set of environment and social policies called the Environmental and Social Framework (ESF), which replaced its older Safeguard Policies. The new ESF expands protections for people and the environment in World Bank-financed investment projects.[5]

These advances elevated the importance of focusing on local communities and on changing the ways hydropower projects are planned, built, and managed.

As governments and international investors alike enhanced their sustainability policies and standards, more developers began to engage with stakeholders earlier and more meaningfully. They started to upgrade their practices at all project stages—from site selection

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[1] Palmer, Caitriona. "Sustainable Hydropower Creates Opportunities in Nepal." *IFC Creating Markets*. November, 2019.

[2] Cernea, Michael.2007. "Financing for Development: Benefit-Sharing Mechanisms in Population Resettlement." *Economic and Political Weekly*. Vol. 42, No. 12, 1033-1046; Cernea, Michael." Compensation and benefit sharing: Why resettlement policies and practices must be reformed." *Water Science and Engineering*. March 2008. Vol. 1, No. 1, 89–120; McCulley, Patrick. 2001. *Silenced Rivers: the ecology and politics of large dams* (2nd edition). Zed Books; Khagram, Sanjeev. 2004. *Dams and Development: Transnational struggles for water and power*. Cornell University Press; and Everard, Mark. 2013. *The Hydropolitics of Dams: Engineering or ecosystems?* Zed Books.

[3] Note that this guide focuses on general good practice principles and experiences. It does not delve into variations in approach based on project size.

[4] World Commission on Dams. 2000. "Dams and Development: A New Framework for Decision-Making."

[5] For more on IFC Performance Standards, see: https://www.ifc.org/wps/wcm/connect/Topics_Ext_Content/IFC_External_Corporate_Site/Sustainability-At-IFC/Policies-Standards/Performance-Standards; for more on the Equator Principles, see: https://equator-principles.com/about/

and design to construction and operations—so they could avoid, minimize, and mitigate their projects' environmental and social impacts.

More recently, many projects have sought to engage local communities and offer support beyond direct impact mitigation.

Supporting the development aspirations of project-affected communities

Local benefit sharing is an important element of this growing practice. It can help ensure that project-affected communities experience tangible gains from the hydropower developments in their backyard. For projects, the business case for benefit sharing is strong. In many cases, the biggest disconnect is at the local level: Individuals, groups, and broader communities that experience project impacts do not feel they are fairly benefiting. Showing that local communities stand to benefit from the project can help reduce controversy and the risk of local opposition. It also can build project acceptability in the surrounding areas and promote positive relations with the community.

Women, youth, ethnic communities, Indigenous Peoples, disabled individuals, and the uneducated often suffer disproportionately from negative effects of infrastructure projects and receive fewer benefits. Benefit sharing can be designed with explicit measures to ensure inclusivity, even when targeting is not required by government regulations. Gender-inclusive benefit sharing, for example, ensures that women are not only eligible for benefits, but that they don't inadvertently become left out of the decision-making processes and the end results.

Despite the desire to engage more comprehensively, public and private hydropower developers often experience challenges in planning and implementing benefit-sharing programs. Some challenges are due to the political, social, and economic characteristics of localities where hydropower projects are developed. Others are caused by the tension in aligning commercial parameters of projects with development processes. Still others stem from a lack of expertise to effectively design and implement benefit sharing.

Adding to the benefit-sharing knowledge base

This guide, which focuses on local benefit sharing, is an effort to strengthen hydropower sector expertise on the topic. It is designed to complement the existing literature on benefit sharing, while taking into consideration that it is an evolving practice. Thus, the guidance going forward could change from what is provided here.

To capture the current state of practice and gather material for the publication, IFC undertook an extensive two-year study, involving desk research, field visits to project sites around the world, and interviews with project personnel, community stakeholders, and industry experts.

The guide looks at benefit-sharing mechanisms from the perspective of public and private sector hydropower developers and operators. It aims to help them conceptualize various benefit-sharing instruments that they can deploy in support of local communities, regardless of whether they are required or voluntary.

The guidance offered is anchored by real-world applications and experiences on the ground. These experiences serve as a practical resource for developers in navigating the design and implementation of benefit-sharing programs.

Given that every project comes with its own unique set of circumstances—including the size of the project, technology, land acquisition parameters, and characteristics of affected communities—it is important to note that the guidance provided is not intended as a one-size-fits-all, prescriptive solution. The complex web of variables associated with every project must be considered carefully in designing benefit-sharing programs or initiatives.

It is also important to note that although governmental instruments such as laws, regulations, and development agreements play a key role in promoting benefit sharing at the local level, guidance on these aspects falls outside the scope of this publication.

1 UNDERSTANDING LOCAL BENEFIT SHARING IN THE HYDROPOWER CONTEXT

Before detailing specific local benefit-sharing approaches, it is important to have a common understanding of local benefit sharing, as well as the reasons that a growing number of hydropower companies around the world are embedding local benefit sharing into their project operations. In this section:

- Definition of local benefit sharing
- Distinctions between environmental and social impact mitigation and benefit sharing: Frequently Asked Questions and answers
- Reasons to implement local benefit sharing

Definition of local benefit sharing

For the purpose of this guide, *local benefit sharing is defined as those deliberate measures undertaken by hydropower developers to share benefits with local communities that go beyond the measures required for impact prevention and mitigation.*[6] Such measures require human and financial resources beyond what is needed for the project's development and operations, and must yield tangible local socioeconomic value.

Typically, local benefit sharing is voluntary. In some cases, however, governments mandate such actions. In addition, a growing number of international financial institutions look for ways to promote local benefit sharing in the hydropower projects or sector policy reforms they support.

The underlying principle of local benefit sharing is this: The project should provide a fair distribution of financial and development benefits to project-affected and neighboring communities so they will experience sustainable growth. Ideally, the positives associated with the project will outweigh the negative impacts on the local community, yielding a net overall benefit. In this way, the community winds up better off with the project than without it. This is analogous to the environmental field's notion of net gain: measures that leave habitats in a better state than before. Both concepts—community net overall benefit and environmental net gain—rely on the application of a mitigation hierarchy, as detailed in IFC's Performance Standards.[7] They are in addition to required mitigation measures, not instead of them.

In general, local communities are those located within the area of project influence. This can include directly and indirectly impacted communities, communities impacted by other project components such as transmission lines or roads, downstream communities,

> A hydropower project should provide a fair distribution of financial and development benefits to project-affected and neighboring communities so they will experience sustainable growth.

and unaffected communities within the administrative boundaries of the project area. The project influence area also can change depending on project stage. Some impacts will be temporary while others are permanent.

Hydropower developers often use different terms to describe their benefit-sharing activities, such as corporate social responsibility, local content, community and/or social investment, sustainable development, and shared value.

With such variety in terminology used, it is important to note that benefit sharing is generally viewed as distinct from the inherent public goods created by the hydropower project itself—flood control, irrigation, water storage, electricity, among others. Similarly, infrastructure improvements required solely for the project's own needs or to meet various planning requirements do not count as benefit sharing.

However, there are examples where developers purposely modify project design so that local benefits result. For example, in Lao People's Democratic Republic, the developers of Nam Theun 2 altered the project's civil

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[6] Despite the increasing provision of benefit sharing, a universally accepted definition remains elusive. The definition provided above and used in this guide is generally consistent with and builds on a number of definitions considered in development of this guide.

[7] According to IFC's Performance Standards, projects should adopt a mitigation hierarchy. This starts with anticipating and avoiding negative impacts. Where avoidance is not possible, minimize the impacts. Where residual impacts remain, compensate/offset for risks and impacts to workers, affected communities, and the environment.

works so that local farms benefited from irrigation. In Lao PDR, the developers of the Theun-Hinboun expansion extended their access road to enhance community transportation. Operations also can be modified to provide community benefits, as with Statkraft's reservoirs in Norway, in which dam water release patterns were altered to reduce flood risk, increase irrigation, and improve transportation access. All such actions can be considered benefit-sharing measures.

In general, the local benefit-sharing concept does not extend across the boundaries between nations—for example, national economic development or supply of electricity to national grid. In some transboundary projects, however, local benefit sharing can play an important role. The ambitious Rusumo Falls hydropower project, with an area of influence spanning three African countries, is one such example. For more on this project and how its developers designed a local benefit-sharing program, please see the companion volume, *Case Studies in Local Benefit Sharing in Hydropower Projects*.

FOUR CATEGORIES OF LOCAL BENEFITS

The types of local benefits provided by projects typically fall within four broad categories, described here:

Revenue sharing and shared ownership: Revenue-sharing mechanisms can include prescribed, negotiated, or voluntary payments and fees, or other specific, consistent, or recurring payments that are received at the local government or community level. Preferential electricity rates and discounts fall under this category as well. Shared ownership implies local community (individuals or representative organizations) ownership in a hydropower project. Depending on the structure of shared ownership arrangements, this can imply sharing in project assets and the dividend stream, as well as a potential role in governance and decision making.

Public services and infrastructure: Mechanisms in this category include facilitating or supporting the provision of essential (or basic) public services. Community amenities such as

local markets; services and infrastructure for community well-being, such as sports, culture, and music; and electrification and provision of other energy services also fall under this category.

Local skills and livelihoods: Mechanisms in this category include providing project-related jobs for local residents and procuring local services and goods, either directly or indirectly through subcontractors. Also included: supporting alternative skills development and income generation and building capacity of community-based organizations or public institutions. Livelihood restoration activities that are part of a resettlement action plan are not included in this category.

Environmental stewardship: This category includes environmental enhancement measures that aim to conserve and protect the environment while also yielding direct benefits, such as employment of local community members in the reforestation program, and indirect benefits, such as more secure local access to forest products. Payment for ecosystem services programs fall into this category if such programs are designed with benefit sharing—not impact mitigation—objectives in mind. Also included are measures to promote low-carbon development and enhance climate resilience of communities, over and above required mitigation measures.

Table 1.1 lays out the range of commonly used local benefit-sharing mechanisms associated with hydropower projects, organized under each of the four categories described above. It also provides examples of the types of actions developers and operators can deploy within the categories. The table reflects the research to date and is by no means a comprehensive listing of all options available.

Note that developers and operators often make use of multiple mechanisms to benefit local communities. Section 3 explores these various mechanisms in greater detail.

TABLE 1.1 Four broad categories of local benefit-sharing mechanisms

Source: IFC.

Opportunities for Benefit Sharing with Local Communities		Examples
REVENUE SHARING AND SHARED OWNERSHIP (RS)	**Recurring payments to local government and/or community**	» Royalties » Regional and local funds
	Shared ownership by local government and/or community	» Distribution of profits/dividends » Asset co-ownership
	Preferential electricity rates and discounts	» Preferential rates » Discounted energy bills » Free electricity
PUBLIC SERVICES AND INFRASTRUCTURE (PS)	**Essential/ basic services**	» Education, health, water, and sanitation infrastructure » Scholarships and grants » Disaster relief » Deliberate enhancements to project design and infrastructure that benefit local population, such as roads and bridges
	Community well-being and amenities	» Culture, music, sport activities » Recreational and tourism infrastructure for cultural benefit » Community and market centers
	Electrification and other energy services	» Electrification (infrastructure, connection costs) » Energy efficiency and conservation
LOCAL SKILLS AND LIVELIHOODS (LS)	**Local employment and procurement**	» Employment-linked training for local residents » Preferential local employment » Preferential local procurement of goods and services
	Alternative skills and livelihoods	» Agriculture and livestock programs » Tourism and fisheries assets for local socio-economic benefit » Micro-credit for SME development » Skills building and higher education opportunities, such as through college scholarships
	Local institutional capacity building	» Capacity building of community-based organizations or public institutions
ENVIRONMENTAL STEWARDSHIP (ES)	**Environmental enhancements with community benefits**	» Payment for ecosystem services: if not a mitigation requirement » Improvements to local environment and wildlife habitats » Environmental education and awareness
	Low-carbon community development and climate resilience	» Measures to improve community climate resilience » Environmentally friendly products and services

Distinctions between environmental and social impact mitigation and benefit sharing

FREQUENTLY ASKED QUESTIONS AND ANSWERS

It is easy to get confused between actions that are considered as mitigation and actions that are considered benefit sharing. The lines often blur, and actions may be on a continuum. Why is it important to understand these distinctions? All parties should share a common understanding of the measures taken. Developer/operator, impacted communities, and host government alike should agree on actions considered required mitigation and those considered benefit sharing, which are generally voluntary and not an entitlement.

The reason? Communicating this common understanding can help manage local stakeholder expectations and provide clarity on what the project is required to deliver. It can also help reduce the risk that local stakeholders view the project as a substitute for government with the accompanying expectations of service provision.

This section offers some general guidance on how to understand these differences.

Q. What is the difference between mitigation and benefit sharing?

A. Mitigation is mandatory for hydropower projects. For purposes of this guide, this includes measures to comply with government statutes calling for avoiding, minimizing, and mitigating environmental and social impacts, as well as unforeseen and unanticipated impacts. Even in situations in which national governments do not have laws mandating mitigation, international financial institutions require mitigation measures as a condition of the project's financing.[8] All measures taken by developers to meet these requirements are considered mitigation and

not benefit sharing. Typically, they are stipulated in environmental and social impact management plans, biodiversity management plans, livelihood restoration plans, resettlement action plans, or concession and license agreements.

Benefit sharing generally covers voluntary measures that go beyond mitigation. These voluntary measures are designed to address local development priorities as identified through consultation with local stakeholders.

There are exceptions to the voluntary aspect, however. These situations occur where country laws and licensing processes or project contractual terms require the provision of benefits to communities above and beyond addressing negative impacts.

Q. What might be considered benefit sharing in some circumstances could fall under the category of impact mitigation in other circumstances. How do you distinguish between the two?

A. Identifying an activity as impact mitigation or benefit sharing requires a clear understanding of project specifics and its mitigation hierarchy. For example, as part of the Churchill River Diversion in Canada, the Nisichawayasihk Cree Nation community opted for the construction of a community sports arena to replace the traditional activities that were disrupted by the flooding of their communities and traditional lands, among other actions.[9] In this situation, company contributions towards the arena would fall into the mitigation category, since they compensate for and offset risks to these communities and their environment—as the hierarchy suggests. On the other hand, in a situation in which project impacts were already fully mitigated, the very same action

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[8] For example, as noted in the introduction, many leading financial institutions have signed on to the Equator Principles. Other frameworks include IFC's Performance Standards and the World Bank Environmental and Social Standards.

[9] Nisichawayasik Cree Nation. 1996. "Northern Flood Implementation Agreement."

"In my opinion, a community development program is something that all hydropower projects should do as normal course over the life of the project."

—Robert Allen Jr., General Manager
Theun-Hinboun Power Company Limited

could qualify as benefit sharing. For another example of how these distinctions are applied on the ground, see box 1.2 on the Reventazón project in Costa Rica.

Adding another layer of complexity: Sometimes, environmental and social management plans include project impact mitigation and social benefits measures, such as job skills training and investment in public services and facilities. To qualify as benefit sharing, the latter should be unrelated to mitigating impacts and designed to help local communities maximize the benefits from the project.

Q. Are there times when it is not possible to tell the difference?

A. Yes. It can be challenging to determine with confidence whether a specific activity falls under mitigation or benefit sharing. Several such situations are highlighted here.

Insufficient mitigation requirements
In jurisdictions that lack comprehensive and enforced environmental and social impact assessment (ESIA) regulations, the mitigation requirements might not be sufficient to deal with the impacts. If such a deficiency is clear and significant, then ensuring that all stakeholders share a common understanding about the actions the developer is taking is critical. This includes understanding what the requirements are; whether the proposed mitigation measures go beyond these requirements and if so, how; and whether additional measures, beyond mitigation, are being put in place to ensure that project benefits are maximized. Gaining

this common understanding will help enable contextual recognition for the developer's efforts, contributing to longer-term project acceptance. In practice, however, drawing these distinctions can be difficult.

Existing projects with legacy impacts
In general, actions to deal with legacy impacts from an earlier time in a project's history are considered as mitigation, given that the project has ongoing responsibility. In certain circumstances, however, this becomes impractical. Examples here include: projects in service for decades, projects with new ownership, or projects in which accurate impact assessment proves too challenging. In such cases, identifying the new efforts to address legacy impacts as benefit sharing could be the better way to go.

Benefit sharing that supplements mitigation to reduce the risk of failure
In theory, projects should ensure the sustainability of mitigation measures such as livelihoods restoration. In practice, however, it can be difficult to determine with absolute certainty that long-term sustainability has been achieved. This is why many developers have started to explore the use of benefit sharing as added assurance that mitigation measures will withstand the test of time.

Q. How are developers dealing with these ambiguities?

A. As previously noted, good practice emphasizes the need to distinguish between impact mitigation and benefit sharing and make this distinction clear to all stakeholders involved.

Among hydropower developers, some emphasize an interwoven approach. The premise is this: The best community results are achieved when various elements of a company's social performance—impact mitigation, community engagement, and benefit sharing—are integrated into an overall approach, with the goal of creating sustainable and prosperous communities. Developers that have adopted this approach use strategies such as engaging with local stakeholders early and identifying the local development priorities to which the developer can contribute, in collaboration with the community.

BOX 1.1 The Reventazón experience: Impact mitigation or benefit sharing?

Instituto Costarricence de Electricidad (ICE) is Costa Rica's national power company. It also is the developer of the 305 MW Reventazón storage hydroelectric project, located along the Reventazón River in the nation's tropical rain forest. Partially funded by international development institutions such as IFC and the Inter-American Development Bank, the project had to meet IFC's Performance Standards on Environmental and Social Sustainability.

With storage a key component of the project, the creation of a large reservoir was essential. But this action resulted in the flooding of a vast surrounding area. The change in topography posed a significant habitat risk as well. If unmitigated, it would critically disrupt the Barbilla-Destierro biological sub-corridor of the Mesoamerican Corridor, a key migratory pathway for jaguars between Nicaragua, Costa Rica, and Panama. The damming of the river also created a barrier that could prevent mullet fish from returning to their upstream fresh water estuary after traveling to their downstream spawning grounds.

Impact mitigation

To comply with IFC Performance Standard 6, the company implemented an extensive environmental program. Focus was on protecting and reforesting the watershed area around the tail of the reservoir to ensure restoration and enhancement of the ecological sub-corridor. To compensate for the loss of connectivity in aquatic habitats for the migratory mullet fish, among other impacts, the company designed and implemented an innovative offset program on the Parismina River—part of the mitigation required by IFC.

Also as part of these efforts, Reventazón worked extensively with the communities surrounding the impacted area of the sub-corridor and the riparian communities along the Parismina River offset. This included payments to forest owners for environmental services, environmental education, and agroforestry technical assistance to improve forest cover and preserve forest resources. ICE is trying to extend the payment-for-environmental-services (PES) beyond the Barbilla-Destierro biological sub-corridor to also cover the Parismina River offset program. To implement the PES program, the company negotiated a formal agreement with Costa Rica's National Forest Fund to channel funds to the participating farmers. The company also contributed more funding so that participants would receive double the initially committed amounts for their services. These actions have given the PES program additional financial stability, making it more attractive to local landowners and helping create a positive company-community relationship.

Mitigation measures result in community benefits

This is a classic case in which implementation of project impact measures could be confused with benefit sharing. It's true that the mitigation measures have benefitted the surrounding communities. And they have helped improve project development outcomes and overall sustainability. However, since such programs were a part of the requirements to mitigate project impacts, they are not technically considered benefit sharing.

Additional voluntary benefit sharing reinforces ICE environmental stewardship

ICE actively promotes environmental stewardship through several voluntary benefit-sharing programs. It has a multi-faceted environmental education programs targeting young students. It also works with farmers to make their farms self-sustainable and reduce the amount of waste. Activities include provision of biodigesters, vermicompost, water networks, and slurry pumps. Biogas produced is used by farmers as a supplemental energy source. ICE also promotes a voluntary tree planting program, involving some of the PES farmer participants plus nearly 100 hundred farm owners, many of them female. To date, following the initial support for 14 nurseries, 6 nurseries remain, mostly women-owned. The income earned from selling trees to ICE and other consumers is used support the women's families and provide education for their children.

The company also conducts an annual survey that measures community perceptions of the project. The survey gives the company insight into the current states of its community relationships. Questions are posed about issues such as perceived changes in living conditions, security, and public health risks.

Source: Field visits, interviews

Reasons to implement local benefit sharing

Why implement benefit-sharing programs at the local level? Compliance with existing laws and regulations is a primary reason. But there are other reasons as well. Our research found that a growing number of public and private developers undertake local benefit sharing as part of an overarching risk management strategy aimed at securing social license and managing project costs and schedule. For example, stronger social license can translate into the reduction in risks related to community opposition and conflict. In turn, this can lead to lower project costs, improved performance, and more stable revenue generation. Stronger social license can enable better community cooperation and engagement on aspects fundamental to the hydropower project, such as watershed management.

Every project will need to define and articulate its own rationale for benefit sharing. Several factors will influence this, as well as the decisions about the level of resources to allocate for such efforts. There are complex issues to consider. For instance, in government-owned projects, decision makers might consider the hydro asset itself a public good that already yields widespread benefit. So, they might prioritize allocating resources to other development projects—particularly in situations where public budgets are tight and there is limited capital available for infrastructure and social investments. Similarly, in private sector projects, owners and senior managers can have a profound impact on the company's values, the visibility of local benefit-sharing goals, and on the degree of commitment.

Other factors can include concerns about the perception of bribery or favoritism towards a particular group as the project focuses on getting a positive reception from communities and citizens. There is also a risk that benefit-sharing decisions could be politicized, particularly for government-owned projects. Given these complexities, good practice emphasizes the importance of making clear to the universe of internal and external stakeholders the project's goals and reasons for undertaking benefit sharing.

Figure 1.1 summarizes the common reasons to implement benefit sharing, along with examples gleaned from the research. Several of these are discussed in further detail below.

FIGURE 1.1 Reasons to implement benefit sharing

In the **Solomon Islands**, where approximately 80 percent of land is under customary tenure, land identification and acquisition issues dominated early discussions about the proposed Tina River Hydropower project. Ultimately, it was determined that a mechanism beyond mitigation was needed to ensure stable relations with the landowners and the communities throughout the operation of the project and beyond. This resulted in a series of benefit-sharing measures targeted at both the landowning tribes and the broader communities within the project area.[a]

Climate Bonds Initiative (CBI), a not-for-profit organization that develops green bond certification standards for investors, now requires a sustainability assessment for all hydropower projects that want to issue green bonds. A hydropower project's approach to benefit sharing is included in the scope of the assessment.[c]

In **South Africa**, to comply with the South African Renewable Energy Independent Power Producer Procurement Program (REIPPP), independent power producer projects must meet several socioeconomic criteria. In one case, these requirements led the developer to allocate 2.5 percent of corporate shares to local shareholders—those living within 50 kilometers of the project—and set aside 1 percent of annual gross revenue for socioeconomic development.[e]

The local benefit-sharing plan associated with **Nepal's UT-1 project** responds to the requirements of the project's development agreement. Among other items, it includes a rural electrification component. It stipulates that all eligible households within a 500-meter radius of the headwork and power station will receive 20 kWh of electrical output free of charge once operations commence. It also obligates the project to building the distribution network that will supply this free local power.[g]

The **Hydropower Sustainability Guidelines** on Good International Industry Practice define expected sustainability performance for the hydropower sector across a range of environmental, social, technical and governance topics. The **Hydropower Sustainability Assessment Protocol** is a voluntary tool that enables the development of a sustainability profile for a hydropower project by assessing its performance against an agreed set of sustainability topics, including aspects of benefit sharing.[b]

In an **Inter-American Development Bank analysis** of 200 infrastructure projects in Latin America and the Caribbean, the authors determined that in 84 percent of cases, lack of community benefits was a trigger of conflict, making it one of the strongest drivers of conflict in the study sample. Energy projects represented 45 percent of the study sample.[d]

The **research** revealed that some developers use local benefit-sharing mechanisms to supplement their mitigation as a way to ensure the long-term sustainability of their mitigation measures. Benefit sharing also can serve as a buffer to protect against unanticipated or intangible impacts that may arise in the course of the project's life—such as greater long-term loss of traditional livelihoods than anticipated or a decline in the effectiveness of livelihood programs over time.[f]

In **Brazil, Itaipu** integrates sustainability into the company's policy and governance structure. Itaipu's vision for 2020 is to be "the generator of clean, renewable energy with the best operating performance and the world's best sustainability practices, promoting sustainable development and regional integration." Within the company's vision and mission, 14 strategic objectives ensure that the vision becomes reality. Aspects of benefit sharing are integrated in these goals.[h]

Reasons to implement benefit sharing

- Access to land and resources
- Alignment with best industry practice
- Social license to operate
- Risk reduction to ensure sustainability of mitigation measures
- Corporate culture and values
- Contractual arrangements
- Compliance with benefit-sharing regulations
- Access to finance

[a] From project staff interviews; communications with research team, 2018–2019; and Johnson. Erik and Frederica Cimato. 2018. "Community Benefit Sharing in the Tina River Hydropower Project." Washington, D.C: World Bank.

[b] International Hydropower Association. "Hydropower Sustainability Guidelines on Good International Industry Practice."

[c] For more, see: Hydropower Sustainability Environmental, Social, and Governance Gap Analysis Tool landing page

[d] Watkins, Graham; Sven-Uwe Mueller; Maria Cecilia Ramirez Bello; Hendrik Meller; and Andreas Georgoulias. 2017. "Lessons from Four Decades of Infrastructure Project Related Conflicts in Latin America and the Caribbean." Inter-American Development Bank.

[e] Interview with South African developer; Eberhard, Anton and Raine Naude. "The South African Renewable Energy Independent Power Producer Procurement Programme: A review and lessons learned." Journal of Energy in Southern Africa. November 2016. Volume 27, Number 4: 1–14.

[f] Based on interviews with staff from projects such as Nam Theun Two, Theun-Hinboun expansion, Khimti and Miel.

[g] Nepal Water and Energy Development Company. "Local Benefit Sharing Plan." Prepared for the Upper Trishuli Hydropower Project, Rasawa District, Nepal. February 15, 2018.

[h] Itaipu Binacional. 2019. "Indicators Guidebook."

The value of social license to operate

A growing body of evidence demonstrates the importance of social license to operate for hydropower projects—and how the lack of social license impacts projects. Gaining the support and approval of the people and communities most affected by a particular project—and thereby securing social license--can help reduce the risk of opposition, delays, and escalating project costs. Such issues can impact operations and threaten project viability.

- In Myanmar, the developers of the **Myitsone Dam** faced local community opposition over the scale of resettlement, negative impacts on communities, and the possibility that the majority of generated power would be exported to China. At the time, the project as proposed would have been among the largest hydropower projects in the world. The government put the project on hold in 2011, after the developers had already invested $1.2 billion. As of January 2020, the project remained on hold.[10]

- In Canada, a $1.3 billion project to expand generation capacity of the **Kemano** hydroelectric project stalled due to community opposition. In 1995, the government cancelled the project, representing a $535 million write-down for the developers—the amount already spent on the project at the time of the cancellation.[11]

- In Mexico, construction commenced in 2010 on a three-year hydroelectric project partially financed by a $60 million investment by the U.S. development bank Overseas Private Investment Corporation (OPIC). Soon thereafter, 37 Indigenous communities raised objections with OPIC, stating that the project, known as the **Cerro de Oro Dam**, was impacting their safety, access to water, and fishing areas. Construction halted in 2011 and has since been suspended indefinitely.[12]

- In Nepal, the **Kali Gandaki "A"** (KGA) hydropower project missed an opportunity to enhance the affected communities' development outcomes, which led to community resistance to the project. Most participants in focus group discussions, particularly women, said the project did not directly address health issues. During the KGA hydro dam construction, few, if any, inclusive community consultations with both men and women were held, and no committees or working groups were formed to work in close collaboration with the project. This communication gap and growing frustration resulted in community resistance and demands for local support programs—such as potable water, electrification, irrigation, and health facilities. The situation led to protest, roadblocks, and strikes, which delayed the project by 51 days and resulted in cost overruns.[13]

Access to land and Free Prior and Informed Consent

Access to land is critical for hydropower projects and issues related to land acquisition are often at the top of the list of community concerns. Many developers see benefit sharing as a tool to help them demonstrate goodwill and start building good community relations.

For projects requiring use of Indigenous communities' customary lands and resources, benefit sharing can be critical in helping developers work through the Free Prior and Informed Consent (FPIC) process (box 1.3).[14] Increasingly, FPIC is becoming integrated into international lending and regulatory requirements. The World Bank Group—including IFC—requires FPIC as part of any project in which it invests if there are impacts on Indigenous Peoples.

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[10] Ramachandran, Sudha. "The Standoff over the Myitsone Dam Project in Myanmar: Advantage China." China Brief Volume 19, Issue 8. April 24, 2019. The Jamestown Foundation

[11] Lazaruk, Susan. 1995. "B.C. Kills Kemano Project." *Windspeaker*. Volume 12, Issue 20

[12] Business & Human Rights Resource Centre. "Mexico: Cerro de Oro Dam impacts indigenous communities near Santo Domingo River."

[13] Orlando, Maria Beatriz et al. 2018. "Getting to Gender Equality in Energy Infrastructure: Lessons from Electricity Generation, Transmission, and Distribution Projects." Energy Sector Management Assistance Program (ESMAP) Technical Report no. 012/18. Washington, D.C.: World Bank.

[14] The United Nations Declaration on the Rights of Indigenous Peoples enshrines the concept of Free Prior Informed Consent (FPIC)—entitling Indigenous communities to make their own decisions on whether to allow use of their lands and resources for a particular project.

Several countries have adopted laws addressing the principles of consultation and consent. For example, Colombian law requires prior consultation (*consulta previa*) with Indigenous communities.

In situations where a project has the potential to impact on the collective rights or title of an Indigenous People, developers should be familiar with both the procedural and substantive requirements of the consultation process.

Corporate values and the tone at the top

Transparency and integration of benefit sharing into a company's organizational structure, policies, systems—beginning at the top—is a strong indicator of good practice. A project's owners and leaders are pivotal in promoting the value of local benefit sharing and encouraging a company-wide embrace of the approach.

For many leading developers, the commitment to local benefit sharing is a reflection of their values and culture, including responsibility for the social and environmental impacts of the business and ambition to improve the lives of the communities in which the companies operates. For example, Statkraft International implemented a local benefit-sharing program as part of its Theun-Hinboun Dam project in Lao PDR. According to a company spokesperson, Statkraft was motivated by the desire to enhance the quality of life for local residents as part of their corporate culture and core values.

In recent years, a growing number of companies have started to strengthen the diversity and inclusion aspects of their corporate culture and values. Benefit-sharing programs designed to address pressing gender gaps in the community, such as enhancing educational and training opportunities for girls and women or improving access to basic services, can complement the company's gender equality goals.

Compliance with government mandates

Benefit-sharing requirements vary from country to country and from one subnational to another. A thorough understanding of national and local laws is key to compliance.

Some governments use revenue-sharing formulas. Others may prescribe dedicated corporate social responsibility allocations. Still others might stipulate benefit-sharing requirements in project development agreements. To understand the effectiveness of the various tools at government disposal, more research is needed. Here are some examples of benefit-sharing requirements currently deployed by governments around the world.

- In **Colombia**, national law mandates that any project drawing benefits from a river must provide 6 percent of its gross electricity sales to upstream and downstream municipalities and resource management agencies, along with 1 percent of its capital expenditure. The funding is intended for basin conservation and protection, sanitation and water supply, reforestation and conservation of water. [15]

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[15] Wang, Chaogang. "A Guide for Local Benefit Sharing in Hydropower Projects." Social Development Papers. Paper no. 128. June 2012. Washington, D. C.: World Bank.

- In **Brazil**, hydropower projects must pay a 6.75 percent royalty out of the monthly total energy produced by each power plant, multiplied by an energy tariff. Brazil's Ministry of the Environment receives 0.75 percent of this royalty to support management of the nation's water resources. Six percent is designated for municipalities affected by the dams and the states where dams are located, with each receiving 45 percent of the total. The remaining 10 percent goes to the federal government.[16]

- In **India**, Clause 135 of India's Companies Act legally obligates all companies with a specified minimum net worth to establish a board-level corporate social responsibility (CSR) committee, which is responsible for oversight of CSR policies, expenditures, monitoring, and reporting.[17]

- In **Nepal**, the emerging practice is for companies to issue up to 10 percent of equity shares earmarked for ownership by local impacted community members as defined by the project's environmental and social impact assessment. Such practice is rooted in the current law, which states that project-affected communities have a constitutional right to invest in a hydropower project development.[18]

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[16] Pineau, Pierre-Olivier, Lucile Tranchecoste, and Yenny Vega-Cárdenas. "Hydropower Royalties: A Comparative Analysis of Major Producing Countries." *Water Economics and Policy.* April 20, 2017; and Faria, Felipe, Alex Davis, Edson Severnini, and Paulina Jaramillo. "The local socio-economic impacts of large hydropower plant development in a developing country." *Energy Economics.* September 2017. Number 67.

[17] Ministry of Corporate Affairs, Government of India. 2018. "Invitation for public comments for high level committee on corporate social responsibility."

[18] Rai, Nirjan; Padmendra Shrestha et al. 2018. "Local Shares: An In-Depth Examination of the Opportunities and Risks for Local Communities Seeking to Invest in Nepal's Hydropower Projects." Washington, D.C.: IFC.

2 DESIGNING AND IMPLEMENTING A LOCAL BENEFIT-SHARING PROGRAM

This section offers concrete guidance for hydropower developers and operators as they plan and implement their own local benefit-sharing programs. In this section:

- Action plan: How to design and implement a local benefit-sharing program
- Checklist: Developer best practices in local benefit sharing

Designing and Implementing a Local Benefit-Sharing Program

Action plan: How to design and implement a local benefit-sharing program

Designing and implementing a local benefit-sharing program for a hydropower project involves overlapping components and actions that may take place concurrently or consecutively, depending on the circumstance. Good practice suggests that the long-term approach to benefit sharing is best, taking into account the entire project cycle. This longer term, lifecycle approach enables flexibility to accommodate changes in local context, the project's risk profile, and financial resources availability throughout the various project phases.

What follows is a discussion of the main actions associated with the process of designing and implementing a benefit-sharing program, accompanied by real-world examples of how project developers deployed these actions on the ground.[19]

Table 2.1 features an overview of this process, mapped to the phases of a typical project lifecycle.

TABLE 2.1 Benefit-sharing design and implementation process, mapped to stages in the project lifecycle

	Options selection	Project planning	Contracting/ bid evaluation	Pre-construction	Construction	Operation and rehabilitation
Project Cycle Description	When led by private developer: » Assessment of various options » Early stakeholder engagements » Site selection	» Technical specifications » ESIAs » Stakeholder engagement » Clearances and approvals	» Pre-qualification » Bidding » Award decisions	» Construction mobilization	» Project construction and supervision » E&S impacts management and monitoring, including resettlement and compensation » Grievance management	» Ongoing implementation of E&S commitments, mitigation obligations, and grievance management » Operations and maintenance
Benefit-sharing Steps	» Establish community relations team » Research national and local context » Begin engagement to identify potential benefit- sharing efforts	» Use ESIAs to understand potential impacts and mitigation measures and plan appropriate benefit sharing » Determine eligibility criteria » Identify benefits for various groups, based on project phase » Engage communities on local priorities and proposed parameters » Draft benefit -sharing strategy	» Engage with with diverse community groups and stakeholders » Review benefit sharing strategy » Engage with EPC contractor on issues such as local community employment and training » Begin pre-construction employment and training » Coordinate benefit-sharing activities with government and nongovernmental partners » Consider implementing additional community projects such as local infrastructure to demonstrate tangible benefits » Build robust benefit-sharing monitoring and reporting system		» Continue community engagement » Implement community projects to demonstrate tangible benefits » Optimize implementation through good governance, flexibility, and strong institutional arrangements » Conduct ongoing monitoring and reporting	» Optimize implementation through good governance, flexibility, and strong institutional arrangements » Continue monitoring and reporting » Review strategy » Use adaptive management to adjust as circumstances change » Plan for managed and responsible exit

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[19] In addition to interviews, field visits, and the author's industry expertise, Sections 2 and 3 draw heavily on: Wang, Chaogang. 2012. "A Guide for Local Benefit Sharing in Hydropower Projects," and IFC. 2010. "Strategic Community Investment."

DEVELOP PROJECT BENEFIT-SHARING STRATEGY AND OBJECTIVES

A robust and well-conceived strategy can increase the likelihood of benefit-sharing program success. This strategy should guide selection and implementation of benefit-sharing measures, and the involvement of communities in the process.

In some companies, an overarching benefit-sharing strategy—articulated at the corporate level—guides the development of benefit-sharing objectives, strategies and plans at each hydropower project. Certain situations may require a simultaneous focus on engagement as the strategy is being developed. This includes situations in which:

- Local communities have experienced significant environmental and social impacts and/or there are cumulative impacts from other hydropower projects where significant legacy impacts exist.

- National and local governments lack the resources and capacity to provide support to and ensure provision of public services in the local communities.

- Directly or indirectly affected local communities include Indigenous Peoples, ethnic communities, and the under-served, marginalized, and vulnerable groups—such as youth, women, the elderly, and the uneducated.

- Local communities are characterized by poverty and social differentiation resulting in increased local expectations for development opportunities such as jobs, business support, energy access, and infrastructure development.

Align timing with project cash flows

Project risks and financing costs tend to be higher in the planning and construction stages of a project. And while projects will need budget outlays for mitigation costs in their earlier years, they can design their benefit-sharing programs so that much of the associated costs come in the later years—as income begins to flow and risks are lower. Such actions can reduce the effective cost to the project and its investors.

Decide on approach to community engagement

Benefit-sharing strategies can range from a fully developer-driven approach with a limited degree of community consultation to a fully community-driven approach based on community visioning and planning. The direction taken will also depend on corporate values and project specifics, as highlighted in box 2.1.

In general, a more effective strategy involves collaboration, as stakeholders and local communities take ownership and control of different aspects of the initiative—ultimately assuming full responsibility for a given program.

BOX 2.1 What underpins a benefit-sharing strategy?

The developer's core values, culture, overall corporate mission, and business strategy are the starting points for a benefit-sharing strategy.

It is further shaped by several factors, including project economics or government regulations that can mandate benefit size or specifics on beneficiaries or limit what can be provided. Other project-specific factors include:

- Size of project's footprint
- Business case: drivers for undertaking local benefit sharing
- Outcomes of environmental and social impact assessments (ESIAs), resettlement plans, and other studies
- Stakeholder engagement process
- General stakeholder expectations and capacity to lead and/or contribute to the decision-making processes on selection, implementation, and monitoring of community programs
- Unresolved legacy issues from previous projects
- Potential for future projects affecting the same landscape / communities
- Presence of other existing facilities operated by the developer in the region

Developing a benefit-sharing strategy and objectives is not a one-off undertaking.

Note that developing a benefit- sharing strategy and objectives is not a one-off undertaking. During the early stages, developers will rely on preliminary information about local context and the project's impacts on the communities. As the project moves forward, more detailed information on impacts and context will become available, possibly creating a need to modify strategy and objectives.

CONDUCT CAREFUL DUE DILIGENCE AND RESEARCH ON THE NATIONAL AND LOCAL CONTEXT

When developing a new project (or acquiring an existing facility), familiarity with the local, regional and national contexts is essential—key to good business and risk management practice. In cases where developers have existing operations in the country or region, there might be a degree of knowledge about the area. Still, when devising the new project's benefit-sharing strategy, it makes good sense to undertake additional due diligence to ensure a thorough understanding of the local context. It also makes sense to hire qualified local experts or staff to assist with this, since they possess in-depth knowledge and understanding of the situation. For examples of aspects that may require additional due diligence, see Appendix B.

UNDERSTAND POTENTIAL IMPACTS AND MITIGATION MEASURES ON LOCAL COMMUNITIES

Understanding the negative impacts of a project on the local communities is critical to ensure that project impacts are mitigated and that the benefit-sharing programs are conceived, designed, and implemented to achieve positive developmental outcomes—beyond mitigation.

Tools to assess impacts and develop plans to address these impacts offer important guidance. They can help pinpoint potential community needs and aspirations and highlighting the types of benefit-sharing interventions that can be particularly meaningful for the local population. These include:

• Environmental and social impact assessments (ESIA)

• Environmental and social management plans (ESMP)

• Livelihood restoration plans (LRP)

• Resettlement action plans (RAP)

Existing projects might require an impact audit. Such an audit is valuable in situations where historical impacts were inadequately addressed and significant legacy impacts remain. Other sources of information about prior impacts include government departments, universities, and nongovernment organizations. Materials such as targeted gender impact assessments, cumulative impacts studies, and climate risk assessments also can offer insights.

Aligning the delivery of benefit-sharing measures with the environmental and social impact mitigation measures can help ensure optimal timing and delivery of various initiatives. For example, if a project is already committed to a rural electrification program in the resettled villages as part of the mitigation measures, extending the program to other project affected communities—as a benefit-sharing measure—could prove both efficient and effective.

Another way to optimize timing is to identify the benefit-sharing measures that can be implemented before actual impact mitigation occurs and those measures that would work better during or after mitigation actions.

As noted in Section 1, some developers deploy benefit sharing as a tool to reduce the risk that the positive outcomes of livelihoods restoration achieved from mitigation fall away. Timing benefit-sharing measures with the end of livelihood restoration programs can help sustain already achieved outcomes—and possibly even expand on them, over the longer term.

For existing, older projects, such as Ghana's Akosombo and Nigeria's Kainji hydroelectric plants, which have been in service for more than 35 years, aligning benefit sharing with impact mitigation can be a particular challenge. In these situations, there might not be a baseline against which to measure progress—or it could be outdated. There might not have been any mitigation at the outset. And new, unforeseen impacts could have arisen. All of this contributes to legacy issues.

In general, newer projects should not face such situations. They all have ESIAs in place to identify the negative impacts from the very start, which can help frame the overall benefit-sharing strategy as well as the design of specific benefit-sharing interventions.

Of course, impacts can vary significantly from project to project, even for projects of the same capacity, head, or reservoir size. They are often most apparent in the area around the project reservoir, but they can extend further upstream due to hydrologic backflows or river diversions. Impacts also occur downstream and can extend quite far due to changes in flow, water quality, and migration patterns of river fish populations.

The most prominent impacts tend to be those associated with resettlement or displacement, but others can be highly significant as well, such as health and safety issues and loss of or reduced access to resources.

Table 2.1 provides examples of common negative community impacts associated with hydropower projects, along with ways to enhance positive community impacts. As noted earlier, negative impacts must be addressed through a concrete set of mitigation measures. The table does not highlight such required measures. Beyond mitigation requirements, however, there are opportunities to support local communities' development aspirations through benefit sharing. Examples of these opportunities are the focus of the table.

The positive impacts inherent to the original purpose and design of the project—such as increased national power supply or regional flood control—and infrastructure built for project-specific needs—such as roads or facilities—are not considered as part of local benefit sharing. These, too, are not featured in the table. (See detailed analysis of commonly used benefit-sharing mechanisms in Section 3.)

TABLE 2.2 How hydropower projects can enhance positive community impacts through benefit sharing

	Examples of negative community impact	Examples of ways to enhance positive community impacts through benefit sharing*
WATER	» Reduced or variable flows that could affect safety, irrigation, water uses and livelihoods of downstream communities » Reduced water quality due to sedimentation or altered flows » Dam safety risk	» Increase safety through flood control and regulated flows deliberately added for local community » Improve water, sanitation, and irrigation infrastructure (not related to impact mitigation) in the project impact area » Promote safe water, sanitation and hygiene awareness programs
LAND AND RESOURCES	» Physical displacement, resettlement » Loss of ancestral land, burial sites/ reduction in territory » Increase in land conflicts » Reduced or lost access to resources: water, fish and animal species, fertile land and forested areas, along with associated nutritional issues » Damage or loss of sites of spiritual or cultural heritage value » Resource depletion due to improved access through enhanced transportation: unless sustainability measures are built in	» Protect cultural heritage and spiritual sites unaffected by project » Improve land management and soil conditions through watershed management initiatives beyond impact mitigation » Promote sustainable tourism as a deliberate initiative » Support local land-based livelihoods (beyond mitigation measures) such as production of livestock and staple crops: these may help address land-related legacy issues from the same or other projects » Support adjustments to local crop and livestock production systems to improve community climate resilience and enhance food security » Improve access to resources through transportation enhanced specifically for community—not through mitigation
LIVELIHOODS	» Economic displacement, including displacement of fishers, trappers and collectors » Loss of access to resources	» Ensure access to training (pre-project, construction and operation), including customized, separate education and training programs for women and the marginalized to reduce gaps in skills and access to jobs » Provide employment and business opportunities for local communities, including men and women, throughout project lifecycle » Implement programs targeting vulnerable groups to improve livelihoods and quality of life » Enhance local electricity supply when not part of impact mitigation
HEALTH, SAFETY AND SOCIAL WELFARE	» Loss of cultural values and customs » Social conflicts with other communities or within the community over resources or benefits; loss of community cohesion » Safety issues: conflicts with migrants or workers; safety around the reservoir » Increased vulnerability of certain community groups, such as women and elderly » Risks of increased exposure to outsiders, sexually-transmitted diseases, alcohol, prostitution, drugs » Increased health risks: mercury poisoning from fish, increased exposure to vector-borne diseases	» Increase government capacity for planning and provision of public services » Support public services and infrastructure: housing, schools, health services, roads, electricity » Support capacity building and peace-building activities aimed at community leaders and community-based organizations » Engage directly with women, the elderly, and other vulnerable groups to ensure their priorities are reflected in benefit-sharing measures » Improve health awareness in local communities through education and outreach

Mitigation and compensation are not included in the "positive impacts" column because their intent is to reduce and compensate for negative impacts.

CONSIDER COMMUNITY IMPACTS IN DESIGN OF BENEFIT SHARING

PROJECT | Mount Coffee Hydropower Rehabilitation, Liberia

Addressing legacy deficits through benefit-sharing program design

The Mount Coffee Hydropower plant was originally constructed in 1966—well before impact mitigation for local communities became good practice and a requirement for most governments and international lending institutions. The plant had been badly damaged during Liberia's civil war, severely constricting the nation's access to electricity. As part of a project to rehabilitate the plant, the project supported a diverse mix of voluntary benefit-sharing measures. The developers' main motivations were to tackle unaddressed impacts from the original development and maximize benefits from rehabilitation.

Organized health talks. *Credit: Mount Coffee Hydropower Rehabilitation Project*

Beneficiaries included impacted groups as well as those unaffected by the rehabilitation. In addition to impact mitigation measures such as installation of a prefabricated steel pedestrian bridge, the developers implemented several benefit-sharing programs, such as:

- Financial literacy training: including a train-the-local trainers program to enable the community to sustain the literacy efforts themselves; started as part of compensation activities and later expanded to other groups
- Quality of life improvements, focused on water supply, sanitation and waste management, and health infrastructure:
  - leadership training
  - alternative sources of community water
  - creation of a market organization and construction of a pay-for-use market toilet
  - subsidized materials and technical guidance for construction of private toilets, to support the community-led total sanitation program
  - construction of floating bridges and several culverts for affected and unaffected villages
  - bridge and culvert maintenance training
- Agriculture support and irrigation for communities near the project
- Upgrade and expansion of Harrisburg public health clinic
- HIV and malaria prevention program for communities near the project

In 2018, all four turbines became operational—yielding an 88 MW power capacity—enabling the re-electrification of Monrovia and greater rural access to electricity, and more than doubling the nation's overall power generation capacity. When complete, the plant is expected to provide power to 460,000 people.

Sources: Interviews with project staff; Nash, Jonathan. "Success of Mount Coffee Hydropower Plant Helps Liberia Shine Brighter." Millennium Challenge Corporation blog. July 23, 2018; website of Mt. Coffee Hydropower Plant Rehabilitation

CONSIDER THE GENDER DIMENSION IN DESIGN OF IMPACT MITIGATION AND BENEFIT SHARING INITIATIVES

Women and girls are impacted differently by hydropower projects. To ensure sustainable and equitable benefit sharing with local communities, it is critical to understand these gender-differentiated impacts.

For example, local female community members often have limited formal access to land. This is due to a variety of factors, including gender-based policies, legal requirements, and social norms. As a result, if land taken for a project is not legally registered in women's names, they may not receive compensation. It is a significant inequity, since many women in low-income rural areas work the land to produce food for their families to eat as part of their household responsibilities. Many rely on unregistered, common-property resources for collection of fodder or for small informal businesses. Such was the case in Nepal, when the KGA project acquired land that had been used for communal cattle grazing and community gardens. Even though women were predominantly impacted by this change, land and houses were registered under men's names, meaning that men received the compensation funds.[20] Taking into consideration such issues will help reduce the risk of inequity.

Gender-based violence—and the associated economic and social costs—is another issue to consider. The construction phase of a hydropower project can increase the risk of gender-based violence, with the arrival of a mostly male labor force. So, too, can location decisions on resettlement sites or ancillary infrastructure like access roads. In India, for instance, women who lived in the proximity of the Vishnugad Pipalkoti Hydro Electric project faced several such impacts not experienced by men. Due to relocation, they were further away from the community forest—

Overlooking the potential gender impacts of energy infrastructure projects at any stage in the project cycle runs the risk of undermining project effectiveness, efficiency, and ultimately, sustainability.

their main livelihood source. This also created a heightened concern over safety and security, especially during the construction phase. In some cases, the relocation added two hours to women's route to and from the forest. It also negatively and disproportionately impacted women's quality of life because of the extended time needed to attend to their families' food and fuel needs.[21]

The bottom line here is that overlooking the potential gender impacts of energy infrastructure projects at any stage in the project cycle runs the risk of undermining project effectiveness, efficiency, and ultimately sustainability.

It is also important to note that for development finance institutions like the World Bank and IFC, ensuring gender-equitable and inclusive growth is mission-critical and integrated into all aspects of lending and advisory operations. The World Bank has recently become the first multilateral development bank to disqualify contractors for failing to comply with GBV-related obligations.[22] The Equator Principles, signed by international financial institutions that, combined, hold 70 percent of emerging market international project finance debt, also highlight gender as a key consideration.[23]

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[20] Orlando. 2018. "Getting to Gender Equality in Energy Infrastructure:"

[21] World Bank Inspection Panel. "India Vishnugad Pipalkoti Hydro Electric Project." Investigation Report No. 89109-IN. July 1, 2014. Washington, D.C.: World Bank.

[22] World Bank. "World Bank to Introduce Contractor Disqualification to Strengthen Prevention of Gender-Based Violence." Press release. November 20, 2020.

[23] See: IFC. 2018. "Unlocking Opportunities for Women and Business: A Toolkit of Actions and Strategies for Women and Business; " Equator Principles landing page.

THE GENDER DIMENSION IN IMPACT MITIGATION AND BENEFIT SHARING

PROJECT | Tina River Hydropower, Solomon Islands

Formal gender action plan drives inclusive and equitable approach

In the Solomon Islands, Tina Hydropower Limited is building a $240 million, 15 MW hydropower plant on the Tina River—20 kilometers southeast of the capital, Honiara. Once operational, the project will reduce the country's reliance on expensive, imported diesel by almost 70 percent.

Women of Mbahomea region during the skills-building training. *Credit: Tina River Hydropower Development Project*

From the outset, gender was a key consideration in the design of the project's impact mitigation and benefit-sharing measures. To ensure a comprehensive approach that met the needs of female stakeholders, the developer commissioned a gender action plan, involving extensive consultations with female and male community members. It outlines measures to ensure that women would not be negatively impacted and specifies ways for men and women to share equally in project benefits. Examples of such measures include:

- **Reframing land acquisition language:** In a country with patriarchal societal norms, women often have no acknowledged decision-making role about the land on which they live and work. The Tina River project team reframed the language of the project's land acquisition away from privatized assets ("landownership and royalties") to focus on the language of the community benefit share. The change in wording helped to reduce the influence of the previous group of rent-seeking men who tended to dominate negotiation on behalf of the tribes—and who refused to accommodate female participation. Instead, a more diverse and representative group of stakeholders, including women, became involved in land transaction negotiations.

- **Identifying infrastructure improvements that reduce women's burdens and increase opportunities:** The consultation process for the gender action plan specifically aimed at identifying opportunities to reduce the daily burden of labor faced by women. Female community members highlighted access to clean water as a priority. Other opportunities included small business development, job skills and financial literacy training for youth, and improved access to schooling.

- **Designing compensation arrangements to avoid elite capture and enable equitable funds distribution:** Among the measures taken was to set up individual bank accounts at a local bank for every man, woman, and child in the five core land tribes being compensated. Account holders also received financial literacy training. These Tribal Cooperative accounts will receive compensation payments, royalty payments, and land lease payments.

- **Establishing a community benefit-sharing fund:** This fund will receive a regular stream of funds from revenue generated by the project. It will be used for community investments, based on agreed community priorities, with particular benefit for women and children. Plans for the fund include creating a governance structure with an equal balance of male and female board directors.

One overarching lesson learned in implementing gender-sensitive benefit-sharing approaches is that male community members and leaders also need to be enfranchised. Given the cultural change associated with elevating women's roles, there is a risk of creating tension and resistance. Careful messaging and broad consultation with all community stakeholders can help diffuse tension and address the issue.

Sources: Tina River Hydropower Development Project. Gender Action Plan. January, 2017; Tina River Hydropower Development Project. "Training Empowers Women—Building Skills for Rural Women in the Tina Hydro Project catchment." April 11, 2020; staff interviews

Improving gender outcomes through benefit sharing

Benefit-sharing measures can help reduce these gender inequities.[24] When well designed, such measures can result in positive and enduring outcomes, by improving the quality of women's lives and their socioeconomic status. For example, in situations where women have difficulty accessing safe and affordable transport, mobile medical clinics that come to them—in their own communities—can mean the difference between good and ill health. The Rampur Hydropower project in India took such an approach, sending mobile health vans to communities without good transportation routes to medical facilities located a distance away. Among the 60,000 people who benefited, slightly more than half were women.

In other instances, benefit-sharing programs that build the capacity of women-owned small businesses can enable them to become a part of the project's value chain. Still other examples include health and nutrition education, job training for project-related employment, or training for tourism-related businesses.

Benefit-sharing measures also must be designed in a way that will not further exacerbate gender disparities. Even when community benefit-sharing programs treat women and men equally, they often yield unequal outcomes. Simply stated, benefit-sharing programs must treat women and men differently if they are to be fair.

What does this mean in practical terms? As an example, programs to increase local employment might tend to favor men, given that the energy sector in general is male-dominated. Projects typically employ men, for both skilled and unskilled positions. There are a number of reasons for this imbalance, ranging from lack of skills and gender stereotypes to employer prejudice and gender-insensitive work environments and unsafe conditions. Care should be taken when designing employment-related measures to ensure that women's unique needs can be addressed, such as providing targeted training, offering flexible work hours, and putting in place safety and security protocols to prevent sexual harassment or abuse.[25]

For further reading on bolstering gender equity by addressing workforce constraints, improving consultation processes, and better understanding impacted communities, see Appendix C.

PLAN FOR ENGAGEMENT AT VARIOUS STAGES OF THE PROJECT LIFECYCLE

Community consultation is a critical step in determining whether and how to implement a benefit-sharing program—and to ensure the relevance and effectiveness of the program.

Good practice suggests engaging with all communities impacted by the project, including those directly and indirectly affected at all stages of the project lifecycle.[26]

Most companies have in place a community relationship office to work with local communities. Leveraging these resources in benefit-sharing discussions and using their on-the-ground intelligence regarding influential stakeholders, community dynamics, and vulnerable and overlooked groups can help further the company-community relationship.

This community relations team should be created early on. And it should include a mix of women and men. A recent IFC study on Nepal revealed that only one out of 20 hydropower companies studied employs women in its environmental and social department. There are no female stakeholder engagement officers, either at a head office or project site, in any of these companies. The study also noted that having more women in such roles could foster trust at the community level and further enhance the participation of women throughout impact assessments and benefit-sharing discussions.[27]

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[24] Marcos, Paloma. "Gender and Renewable Energy: Wind, Solar, Geothermal and Hydroelectric Energy." November, 2014. Inter-American Development Bank.

[25] Orlando. 2018. "Getting to Gender Equality in Energy Infrastructure."

[26] Wang. Chaogang. 2012. "A Guide for Local Benefit Sharing in Hydropower Projects." Social Development Paper No. 128. Washington, D.C.: World Bank.

[27] IFC. "Powered by Women: Powered by Women: The Business Case for Gender Diversity and Equality in Nepal's Hydropower Sector." August, 2020.

Developers may need to provide capacity-building support to enable better community participation in consultative processes and better leadership in the community development effort across all project phases. This support can take several forms:

- Sharing information on specific aspects of the project or regulatory requirements

- Training and ongoing coaching

- Providing technical support to existing community organizations

Such efforts can strengthen community participation in areas such as decision making, visioning and planning, proposal writing, project scheduling, and management. When engagement is more complex—for example, negotiating benefit-sharing agreements—consider bringing in third-party experts to advise local stakeholders on specialized topics, such as legal and financial matters.

What follows is a brief discussion on the suggested approach to engagement at various stages of the project cycle.

1. Preconstruction/project preparation

As previously noted, engaging early on benefit sharing enables coordination with mitigation arrangements. It also presents an opportunity to forge positive relationships with the communities by sharing information about the positive aspects of a project. In addition, since communities are increasingly aware of how other projects support local development, it makes sense to bring them in early, so they are aware of the developer's plans to incorporate benefit sharing.

At this stage, some projects create community development funds. Others directly invest in social infrastructure such as roads, schools, clinics, community centers. Or, projects may announce plans for longer- term community development. These early investments can take place in conjunction with government or donor agencies, along with civil society and nongovernmental organizations. The goal of such investments is to reinforce

government efforts to meet key sustainability and development goals and strengthen community resilience.

For example, in Nepal, since projects take so long to come to fruition, some developers set up early community development funds, in collaboration with donors and the government. Such funds enable a flow of benefits to local communities before impacts happen. The developers of the Kabeli-A hydro project took this approach, starting its social responsibility program during the project preparation phase. Activities included establishing a seedling nursery, offering a free dental care, supporting local youth clubs and improving local school facilities. These early efforts generated confidence among communities, and created an entry point for the project, facilitating genuine participation in the planning of ongoing management plans and benefit sharing.[28]

Of course, at this stage it is important to manage expectations, articulating clearly the extent to which the project will benefit communities and differentiating between mitigation and benefit sharing.

During early consultations, project teams can gather input from male and female community members on how local communities might be able to take advantage of project-related infrastructure—roads, water sources, fences, and the like—since there is usually some flexibility in the siting of these investments. For example, it could cost far less to extend a planned road or install water source access or a low-voltage distribution network connecting to the project's own infrastructure than it would to construct stand-alone projects.

Early consultations on impact assessments and management plans also represent an opportunity to incorporate preliminary discussion on benefit-sharing issues. Follow-on consultations might be needed to ensure that proposed designs of community projects will work and to review process requirements, such as how communities can submit their project ideas or proposals.

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[28] World Bank. 2017. "Better Hydro: Compendium of Case Studies."

When possible, involve contractors in the pre-construction engagement—particularly in areas such as employment, training, and procurement (see Section 3 for more detail). This becomes critically important if someone other than the project owner—such as an EPC contractor—carries out the project.

Depending on the context and project specifics, engagement efforts could extend beyond consultation and into negotiation for benefit-sharing agreements. Benefit sharing may well be an important component of the overall negotiation, with the outcome reflected in a formalized agreement. In the past, the practice of negotiating impact benefit agreements was typical only in situations involving impacts on Indigenous Peoples (for more on this, see box 1.3 and the following subsection on engaging with Indigenous Peoples). Today, however, these negotiations take place with non-Indigenous communities as well.

2. Construction stage

Developers around the world report that the most effective community engagement efforts are those that continue throughout the construction and operational phases.

In the construction stage, developers might hesitate to use a portion of their construction budgets for benefit-sharing programs. Instead, they may prefer to delay the start of programs until income begins to flow—meaning once the project is operational.

On the other hand, the construction stage produces the most impacts on local communities. Developers often face intense pressure to deliver jobs, basic services, and infrastructure. During this phase, benefit-sharing programs can play a particularly important role in creating goodwill, demonstrating tangible benefits, and facilitating company-community relationships.

Common benefits deployed during the construction phase include employment quotas favoring local workers, skills training, community development activities, and additional construction of public infrastructure.

The role of the community liaison becomes critical in this phase. This role includes responsibility for benefit-sharing program planning, identifying risks and opportunities, and modifying efforts as needed. A qualified local community member could prove most effective in this role.

3. Operations stage

During the operations phase, projects often focus on long-term benefits and relationship building. If benefit-sharing programs ramped up during construction, efforts in the operations stage typically aim to continue or expand on these initiatives—depending on expressed need and status of the individual measures. Specific measures during the operations stage include livelihood-building, (limited) employment, royalties, long-term multi-stakeholder development funds, rural electrification, and revenue or equity sharing.

Because benefit sharing is an evolutionary process, continued community engagement will be key to ongoing effectiveness. Projects that first initiate their benefit sharing during the operations stage might rely on their earlier environmental and social mitigation efforts and other community interactions to inform program design. However, such information does not offset the need for and importance of ongoing and direct community engagement on benefit-sharing priorities and preferred delivery approaches. The community liaison can play a pivotal role in helping to facilitate this evolutionary process and making sure that community input feeds into program changes.

ENSURE INCLUSIVITY IN ALL ENGAGEMENT EFFORTS

Some developers tend to favor engagement with a narrower group of more influential stakeholders, especially in the early stages. The challenge here is that these stakeholders do not always represent the diversity of perspectives in local communities. Relying solely on consultations with this select group could lead to elite capture—meaning that they could distort issues to access benefits for their own use. In addition, they could be influenced by local politics and power relations. Given these issues, broadening the circle of engagement is critical, even in the early stages.[29]

To ensure thorough community engagement, the project must connect with the range of affected people, unhindered by gender or religious, cultural, or social biases. The project team must take care to avoid elite capture. They should include specific measures to ensure attendance from the full range of community members during consultations. And all participants should be encouraged to speak freely. In the absence of such a scenario, project teams could convene smaller, targeted consultations, taking the necessary steps to ensure that the target audience attends and participates. This could be the optimal approach in cultures where women or other vulnerable groups either do not attend consultations or they would be reluctant to speak out.

Gender-inclusive engagement is key

Ensuring inclusivity in engagement remains an overall challenge in the hydropower sector. For example, the IFC gender study of 20 hydropower projects in Nepal found that only three companies conducted separate consultations with women stakeholders. Of the three, two are projects with foreign direct investments that also undertook gender impact assessments.

Yet, a growing body of evidence has demonstrated that community programs focused on women or designed with women's input tend to have a positive impact on the overall community. Women typically focus on more productive, pro-social income management. And they invest in health, nutrition, education, and safety for their families and community. The experiences of the developer of the Theun-Hinboun project in Lao PDR, highlighted in the Applying the Guidance box that follows, demonstrate effective ways to ensure women's voices are heard.

Involve other stakeholders

In addition, other stakeholders often have important roles in benefit sharing and should be engaged. Among the stakeholders to seek out:

- Governments (national, regional and local authorities, national development bodies)
- Educational institutions
- Community development organizations
- Watershed/basin management entities
- Nongovernmental organizations
- Financial institutions
- Local and international contractors and suppliers

Among the desired outcomes from such consultations: gathering more information about local communities and the development plans, understanding stakeholders' institutional capacities, and finding co-funders, partners, and champions who will advocate for benefit sharing or act as the implementing agent for programs. These efforts also could help inform an overarching benefit-sharing communication strategy focused on the government, civil society, and the private sector. Existing local networks and organizations can become sustainable governance structures for decision making on and delivery of local benefits.

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[29] Several resources are available to provide guidance on engaging with marginalized groups such as Indigenous Peoples. These include: IFC. 2012. "IFC Performance Standards on Environmental and Social Sustainability." See Performance Standard 7; Forest Peoples Programme 2017. "A Community Guide to IFC Performance Standard 7 on Indigenous Peoples;" Brown, Murray and Krista Robertson. "Benefit Sharing Agreements in British Columbia: A Guide for First Nations, Businesses, and Governments." Woodward & Company; ICMM. 2015. "Good Practice Guide: Indigenous Peoples and Mining."

BOX 2.2 12 tips for engaging women in consultations

These tips focus on engaging with women; however, they are applicable for engagement with other groups as well.

1. Collect and analyze sex-disaggregated information about the local community and stakeholders
2. Hire or partner with a gender specialist or local organization to gather information
3. Use gender-sensitive facilitation techniques to better understand obstacles and ways to improve women's access to and participation in benefit-sharing programs
4. Embed gender specialists and female staff within the environmental and social teams, including on site
5. Enable women's participation in meetings by providing childcare, transport and other arrangements as needed
6. Plan meetings at convenient times and in safe places: consider women-only meetings if needed
7. Conduct meetings in local language or provide interpreters
8. Use female facilitators and female interpreters
9. Engage women's groups to encourage women's participation
10. Ensure women's representation from diverse socioeconomic groups
11. Monitor progress on inclusivity with actions such as setting targets for the number of female participants
12. Advocate for women in leadership roles: including as community representatives who engage with the project on benefit sharing

Source: IFC. "Powered by Women."

APPLYING THE GUIDANCE

INCLUSIVE COMMUNITY ENGAGEMENT

PROJECT | Theun-Hinboun Hydropower, Lao PDR

Extensive engagement with women's groups yields strong outcomes

THPC, the company that developed the Theun-Hinboun hydropower plant in Lao PDR, undertook extensive community outreach efforts during the expansion of the plant. The company leveraged a government requirement for "women's unions" in every village to ensure that women's voices would be heard. Since local societal norms meant that women typically do not participate in any significant way during formal village meetings, the presence of the women's groups provided a way to engage with these important community members. Through the women's groups, input on key community development options flowed into villages' decision-making

Demonstration garden plot in Theun Hinbun area village. *Credit: E. Wojczynski*

processes, enabling more effective benefit-sharing programs. These groups have helped to empower local women, giving them a forum to offer input on benefit-sharing initiatives. They have been instrumental in helping THPC focus its community programs on the following areas:

- Promoting better health, hygiene, sanitation and social welfare
- Organizing training
- Supporting income-generating activities such as weaving
- Creating and monitoring a "Village Savings Credit Fund" to encourage savings and enable members to access small loans
- Arranging community festivals to strengthen community bonds and relationships
- Building local governance capacity: women's group members work with local homeowners to make them aware of their rights and responsibilities, such as being present to sign off when a contractor prepares to level their fields as part of the project

Sources: field visits, personal interviews and communications 2018–2019

> "Women are consulted in the family, men have the throne and decide, and women are active in the actual implementation [of community development programs]."
>
> —Lao village elder, on women's roles in community near Theun-Hinboun hydroelectric plant

APPLYING THE GUIDANCE

INCLUSIVE COMMUNITY ENGAGEMENT

PROJECT | Itaipu Dam, Brazil

Leveraging existing multi-stakeholder engagement processes to coordinate and deliver community benefits

The Itaipu Dam is located on the Paraná River between Brazil and Paraguay. One of the world's largest hydroelectric projects, it supplies about 20 percent of Brazil's power. Nearly 20 years ago, the dam's developer, Itaipu Nacional, implemented "Cultivando Água Boa" (Cultivating Good Water—CAB) to manage the risk of reservoir eutrophication due to agricultural runoff. Initially covering 29 municipalities, by 2017 Itaipu had expanded the CAB program to 54 municipalities. Following the phase out of CAB, the company retained its governance structure and principles of inclusive participation and engagement to deliver benefit sharing.

Among the notable aspects of the approach was a decentralized decision-making process. Municipal-level steering committees determine priority activities in their jurisdictions. During CAB's active period, this structure enabled engagement with more than 2,000 partners and further outreach to more than 80,000 people through 400 activities. The approach also enfranchised Indigenous communities, with specific procedures designed to engage with these groups.

This multi-stakeholder coordination platform also proved useful in facilitating proposals from municipalities for community benefit programs. Among such programs supported by Itaipu: a participatory water-quality monitoring initiative. The initiative, which involved engaging local schoolchildren to assist in the monitoring, was designed to improve community water supply, primarily benefitting vulnerable people. Meanwhile, the steering committees gained skills, knowledge, and expertise—an added value that strengthens overall municipality management.

Source: Itaipu.2019. "Indicators Guidebook."

Itaipu dam. Credit: Alexandre Marchetti/Itaipu Binacional

DETERMINE ELIGIBILITY FOR BENEFIT SHARING

In some countries, laws or policies determine the geographical areas that are eligible for benefit-sharing arrangements.[30] If the law requires coverage solely for the district where the project or upstream reservoir is located, developers often extend programming to communities downstream and further upstream, depending on the circumstances and area of influence. Identifying the set of communities directly impacted by the project is a starting point for determining eligibility.[31] Typically, developers base their eligibility decisions on a narrower set of communities by considering the degree of impact.

However, the eligibility criteria also can include communities not directly impacted (see box 2.3).[32]

Beware of underestimating eligibility sensitivities

Eligibility is a serious and delicate consideration for the design and delivery of any benefit-sharing program. Questions and concerns about eligibility among community members can become an ongoing grievance for a hydropower project. They also can be a source of local conflict.

This was the case in India, where community grievances over the Vishugaad Pipalkoti hydropower project included concerns about inequitable distribution of development benefits. Tensions arose between those villages identified as project affected and entitled to benefits and those that were not considered as project affected. A specific sore point involved the expectation that residents of a village that was not considered impacted would share their community water and forest resources with families who had been resettled near their village.[33]

BOX 2.3 Which communities qualify for benefit sharing?

Impact assessments should identify impacted communities and how far upstream or downstream the impacts stretch. While circumstances vary from project to project and from country to country, developers should consider several types of affected local communities in their benefit-sharing plans.

- **Communities affected by flooding, land acquisition, and resettlement:** Benefit- sharing programs typically cover the entire community, as distinct from compensation provided for directly affected individuals, including resettled communities and host communities where resettled groups have relocated.
- **Upstream and downstream communities:** Upstream communities can be impacted by flooding or diversions while downstream communities can experience decreased water quality or altered flows.
- **Communities indirectly affected:** Beneficiaries also might include communities dealing with a massive influx of construction workers.
- **Communities across the entire watershed or river basin:** Including these communities might be in order, especially if project impacts are far reaching or if there are communities receiving no benefits but feel they are being impacted. A challenge here is that this may require coordination with other entities.

Sources: research team interviews

Set explicit eligibility criteria

Typically, setting eligibility criteria does not involve quantitative measures. However, in some circumstances, quantitative and other specific criteria can be helpful, especially as part of community outreach efforts.

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[30] For example in Colombia, national law requires a form of royalties be paid by hydro projects to communities in the reservoir and basin area but not downstream communities.

[31] For example, IFC Performance Standard 1 defines "affected communities" as "any people or communities located in the project's near geographical proximity, particularly those contiguous to the existing or proposed project facilities, who are subject to actual or potential direct project-related risks and/or adverse impacts on their physical environment, health, or livelihoods."

[32] "Indirect impacts" can have different definitions. Sometimes those indirectly impacted are considered as people who experience only a relatively small impact on livelihood income (e.g. less than 10 percent); or people impacted not directly by the project but in a secondary manner (e.g. people living in a community that hosts those being resettled from a different area); or people who live in a different government geographic district than the one in which the dam and reservoir are located.

[33] World Bank Inspection Panel. "India Vishnugad Pipalkoti Hydro Electric Project."

In Lao PDR, for example, THPC used poverty indicators to help identify the villages to include in the developer's benefit-sharing program—an example of how a developer considered community vulnerability. Setting a clear basis for eligibility—can enhance understanding, build trust in the fairness of the process, and serve to manage expectations about the program. This will help reduce the risk of community friction. It also can help reduce strife in situations where some community members receive higher benefit levels while others feel that such differences are not justified.

Equally important is sharing the rationale with all stakeholders. Such communications should provide explanations about who is eligible to benefit, who is not, and the reasons why certain groups are prioritized

for support. Also be sure to include information on resource allocation among eligible groups and the reasons that certain groups have been designated to receive more resources than others.

In Colombia, ISAGEN created a detailed metric to prioritize the villages to be included in their programs. The instrument measured 15 dimensions, including individual and group leadership within communities, the degree to which the community organization complies with respective legislation and regulations, financial, monitoring and evaluation capacity of the community organization, systems for communications and information sharing, and management of conflicts. Indicators were rated on a scale of five, from from deficient through optimal. Please see Appendix E for more on this tool.

APPLYING THE GUIDANCE

DETERMINE ELIGIBILITY LEVELS

PROJECT | Khimti 1, Nepal

Eligibility based on geographic boundaries

In Nepal, the developers of the 60 MW Khimti 1 hydroelectric plant initiated an extensive benefit-sharing program as part of their plans. To determine eligibility, the developers first identified the geographic boundaries within which benefits would be provided—based on criteria provided by local village development committees (now called gaunpalikas—or rural municipalities) with the next focus on those residents directly affected by the project. As part of a strategy to avoid conflict, jealousy, and flare ups of local resentment, the company decided to enable access to benefit sharing programs for everyone residing within the geographic boundaries—not just those directly affected by the project.

The Khimti hydropower plant. *Credit: Statkraft*

Although residents living further from the project site pressured the company for inclusion in the benefit-sharing programs, the pressure died down after the company cited the defined geographic boundaries as the key factor in determining eligibility: if residents lived within the boundaries, they qualified; if they lived outside the boundaries, they did not.

Sources: interviews, communications with company representatives, 2018–2019

DETERMINE ELIGIBILITY LEVELS

PROJECT | Tina River Hydro Development, Solomon Islands

With customary landownership at issue, a two-tiered approach to benefits eligibility

The Tina River Hydropower project is located on a major tributary of the Ngalimbui River—the Tina River, where extensive studies had identified significant hydropower potential. The effort is a public-private development partnership involving the Solomon Islands government along with the World Bank, IFC, the Australian Department of Foreign Affairs and Trade, the Green Climate Fund, the Asian Development Bank, the International Renewable Energy Agency, the Economic Development Cooperation Fund of Korea, Korea Water Corporation, and Hyundai Engineering Company, among others.

As the project's initial stages got underway and efforts to identify an optimal benefit-sharing approach moved forward, the developer faced a challenge. As is common in Melanesia, a significant percentage of the land needed for the project falls under customary ownership—ownership through unwritten common practice, rather than by way of written statute or law. This made direct acquisition of property nearly impossible. Identifying landowners and negotiating leases and benefits was equally difficult.

Tina River Hydropower Project: ESIA Public hearing in Mataruka village. *Credit: Tina River Hydropower Development Project*

To address the challenge, the government created a two-tier benefit sharing approach.

The first group of beneficiaries includes a small group of communities with customary ownership rights to the land acquired for project infrastructure. In exchange for their land this group—representing 5 of the 27 Malango and Bahomea tribes in the area—will receive:

- 50 percent ownership interest in the Tina Core Land Company, which will manage use of the land and earn revenue in the form of lease payments from the plant operator
- An ongoing revenue stream equal to 1.5 percent of the project's Power Purchase Agreement revenue
- Access to the broader benefit sharing program
- The second group of beneficiaries encompasses the broader community—local peoples whose land was not acquired but who have a cultural connection to the project area. Of note, the decision to create a more comprehensive benefit-sharing program, extended to all 27 local tribes, arose as a result of extensive consultation and engagement with a wide range of community stakeholders. This program features two main elements, timed with different project stages:
  - Planning and construction stages: $2.8 million investment in local water supply and electricity infrastructure; efforts to promote local community hiring for project-related jobs
  - Operations stage: $200,000 average annual royalties to flow into a community benefit-sharing fund, to support community priorities such as education, health care, women's resources, and skills training

Source: project staff interviews, communications with research team, 2018–2019 and Johnson and Cimato. 2018. "Community Benefit Sharing in the Tina River Hydropower Project."

IDENTIFY THE LEVEL OF BENEFITS FOR DIFFERENT COMMUNITY GROUPS

In the interests of fairness and equity, some groups may qualify for a higher level of benefits. For example, in Nepal, it is common to divide beneficiaries eligible to purchase an equity stake in the company through the local shares mechanism into three groups—severely affected, affected and less-affected—with benefits apportioned accordingly. Some projects further define the categories. A report by the International Centre for Integrated Mountain Development noted that one project defined as "severely project-affected" a family that lost their house and more than 50 percent of their land and "project-affected" as a family that that lost less than 50 percent of its land.[34]

The question of eligibility also might involve determining who is considered "local" when defining the affected population. For example, the Nepal projects making use of the local shares mechanism would enable affected local citizens to purchase shares at par value, while others—non-affected citizens—would purchase shares at a premium. The reasoning here is that communities experiencing greater project impacts should receive more shares. There is no consensus on what constitutes "local," however. Some of the projects that make use of the local shares mechanism define locals as affected citizens living in rural municipalities—known as the lower administrative division—but other projects define locals as residents of affected districts—the larger administrative division.[35]

For hydropower projects in general, factors affecting the level of benefits provided to different groups might include:

- Degree of impact prior to mitigation, including impacts to home, land, livelihoods, natural capital, access to services and facilities, social networks
- Residual impacts after mitigation
- Availability of other sources of assistance
- Vulnerability of subgroups
- Risk of creating community divisions due to unequal benefit levels

USE A PORTFOLIO APPROACH WITH A MIX OF BENEFIT-SHARING MEASURES

The portfolio approach emphasizes a selection of benefit-sharing programs with a mix of short- and long-term objectives, deployed either concurrently or at different project stages.

The goal of this portfolio approach is to optimize the developer's ability to address project risks and local priorities as they evolve and ensure longer-term sustainability of benefits.

For example, immediate-impact and high-visibility measures like infrastructure upgrades might be rolled out during the project's planning and construction phases to generate good will and gain social license.

As the project shifts to the operations phase, however, the focus of the benefit-sharing program will shift as well. A larger portion of funding might go toward longer-term productive investments that build local capacity over time, such as skills training and livelihood support.

In deciding how to allocate limited funds among various community programs, clear focus is critical. Experience suggests that companies focused on high-quality initiatives in a few, well-defined areas tend to achieve greater impact and recognition than companies that spread resources across many different types of activities.

Of course, there is no template that will yield the single-best benefit-sharing program. This is because selection of specific mechanisms and overall design of benefit-sharing programs depend on the unique community context and project circumstances. For a detailed analysis of specific benefit-sharing mechanisms commonly used in hydropower projects, see Section 3.

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[34] Shrestha, P. et al. 2016. "Benefit Sharing and Sustainable Hydropower: Lessons from Nepal." Kathmandu: International Centre for Integrated Mountain Development

[35] Shrestha, P. et al. 2016. "Benefit Sharing and Sustainable Hydropower: Lessons from Nepal."

DEFINE THE STRUCTURE FOR FUNDING BENEFIT-SHARING AND MANAGING FUNDS DELIVERY

Hydropower projects have several options on how to fund their benefit-sharing activities. They can use a one-time benefit-sharing allocation as part of construction and/or operations phases, as with the ambitious Rusumo Falls hydropower project in East Africa. The developers of this project, straddling the borders of three countries, implemented the $15 million Local Area Development Program (LADP) with a budget based on a one-time allocation built into the project cost. (For more on this project, see the case study volume in this Report Series.)

Or, projects can fund benefit sharing through periodic cash transfers—for example, on a yearly basis. Such payments can be structured in three different ways:

- Fixed payments, such as annual payments per MW: This gives the community certainty of cash flow and total amount.

- Variable payments linked to project production or profitability: This increases alignment between project and community, meaning that if the project does well there is increased potential for higher returns for the community. It also benefits the developer by sharing the risks. However, such variation in community revenues creates uncertainty on total amounts over the lifetime of the project. It also increases the risk of volatility in annual returns, which may involve actual financial losses for equity holders, potentially leading to community frustration if the project is not profitable.

- Hybrid payments: This approach, a combination of fixed and variable payments, enables alignment of interests while reducing community risk.

Identify approach to funds management

A project's own community relations team could manage the funds designated for benefit sharing. Other models

> **BOX 2.4** 10 questions to ask (and answer) in planning a fund structure for delivery of benefits
>
> In determining whether a fund, foundation, or trust is the optimal mechanism to deliver benefit sharing, developers should consider the following early in their planning stages:
>
> 1. What is the objective of a foundation, fund, trust or other community structure?
> 2. How is this structure going to be resourced and for how long?
> 3. Is the structure expected to do fundraising and if so, where?
> 4. What will the governance structure look like: Company driven? Community driven?
> 5. Who are the stakeholders that need to be represented?
> 6. Will it be a grant-funding entity or implementation entity?
> 7. What are its capacity requirements?
> 8. What are the benefit-sharing roles and responsibilities of the company and the new entity?
> 9. How will these roles be communicated?
> 10. Will the entity be associated with the company name?
>
> *Source: IFC. "Establishing Foundations to Deliver Community Investment 2015."*

exist as well. In a 2009 study, the International Institute for Environment and Development identified two main options for managing the financial resources provided by the developer for benefit-sharing purposes:[36]

- Existing governance structures: For example, depositing payments/fees into the development budgets of the villages and municipalities where impacted people live. Under this structure, the presumption is that the municipalities would consult with dam-affected populations to prioritize uses of the benefit-sharing funds. This model also includes subcontracting to third parties for targeted

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[36] Skinner et al. 2009. "Sharing the benefits of large dams in West Africa." *Natural Resource Issues, No.19.* International Institute for Environment and Development.

delivery of benefits, such as community-based organizations representing dam-affected groups, or setting up new representative community-based institutions, such as community development committees, to deliver benefits.

- Use of a long-term, distinct fund or trust: Under this structure, budgets are established for various local development or grant application programs. Governance arrangements reflect existing local stakeholder diversity and are aligned with local development plans. This approach is used in many countries.

Choosing between the two broader approaches depends on many factors. The IIED study noted that the fund approach offers advantages of flexibility, rapid response to development needs, and local ownership. It also enables a consistent approach across communities. In situations where a fund is preferred, good practice is to carefully assess whether and how all of the various stakeholder voices should be represented. Creating a multi-stakeholder steering committee to provide oversight could help to address this issue. This approach also entails identifying the party responsible for day-to-day fund management, administration, and reporting—the developer, the community, or a designated third party.

While this is the preferred approach for many hydropower project developers, an IFC study[37] reveals that this structure is not necessarily sustainable. Although a fund, foundation, or trust can be effective in delivering benefit sharing, the study notes that it must come with a strong rationale and plan—and that it must be designed and resourced carefully. Box 2.4 summarizes the issues raised in the IFC study.

Note that setting up such an entity might require providing an additional upfront endowment, enabling the fund to accumulate interest and grow its financial base.

Box 2.5 highlights two different types of financial arrangements to facilitate delivery of benefits:

Ngonye Falls in Zambia, which uses community trusts, and Niskamoon in Canada, which uses a joint community-developer corporation. The Ngonye Falls project opted to deploy a financially based mechanism, which flowed into the community trust. The developers wanted to avoid community frustration and possible disillusionment in the time lag between pre-construction and construction, when expectations about future benefits were set, and operations, when the communities began to realize benefits. Lessons learned from other projects had indicated that such delays can cause a significant hardening of local community attitudes against hydropower projects, especially among directly affected groups.

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[37] IFC. 2015. "Establishing Foundations to Deliver Community Investment 2015 – A Quick Guide."

BOX 2.5 Two approaches to creating new financial structures for benefit-sharing delivery

In two hydropower projects, one in Zambia and one in Canada, the developers took different approaches in creating financial structures to deliver benefit sharing. They are briefly described here.

Ngonye Falls project, Zambia: Community trusts

The 180 MW run-of-river Ngonye Falls hydroelectric project is in the planning stage of development by Western Power Corporation, an independent power producer. In 2015, the Barotse Royal Establishment signed a community participation agreement with the developer, which calls for communities in the Western Province to receive a 6 percent share in the project.

The agreement stipulates the creation of two community trusts to hold and disburse the proceeds, one for the local project-affected communities and the other for the wider Western Province communities. The trusts will fund community development initiatives such as education, sanitation and healthcare improvements.

In addition to the equity shares, the trusts will receive a one-time payment of $500,000 when construction begins, followed by a fixed annual community payment of $500,000 once operations begin. From the end of the first year of operations, all shareholders—including the community by way of the trusts—will be eligible for a dividend based on revenues from generation. The trusts' annual dividend payments will be proportional to the community's 6 percent shareholding. The maximum payout is anticipated at about $2.5 million in any given year. Future plans include community meetings to determine specifics on trust governance and objectives.[a]

Eastmain-1A/Sarcelle/Rupert project, Quebec, Canada: Joint community/developer corporation

Hydro-Québec is a public utility that manages electricity generation, transmission, and distribution in Quebec province. It also exports power to the northeastern United States. The developer's hydro projects are guided by three principles: They must be profitable, environmentally acceptable, and well-received by the local community. One such project was the Eastmain-1A/Sarcelle/Rupert (ESR) project, located in Northern Quebec, which involved working with six Cree communities, represented regionally by the Cree Nation government (CNG).

To ensure local acceptance of the project, developer representatives undertook consultations with local and regional entities, including Cree land users whose family hunting territories are located in the project area. In a 2002 vote, the communities and CNG formally consented to the project, under certain conditions and the parties signed an impact benefit agreement. The agreement includes a wide range of project-related commitments, ensuring an equitable share of benefits and a meaningful decision-making role for the Cree communities.

To implement the agreement, the parties created the Niskamoon Corporation, which facilitates access to funds and programs for the nine Cree communities, land users, and entities impacted by hydroelectric development. The corporation's goal is to promote and enhance coexistence on the land for current and future generations.

Structured as a joint Cree/Hydro-Québec non-profit, Niskamoon is managed by an eight-member board of directors appointed by CNG, with three additional directors representing Hydro-Quebec. To avoid elite capture or any perceived concerns, elected officials from beneficiary communities are not eligible to sit on the Niskamoon board.

The corporation provides funding for local officers who help with proposal and report preparation, communication, and project monitoring. Recent projects undertaken through Niskamoon include cultural initiatives designed to promote projects that value Cree culture, training and employment programs, and a role in the Coastal Habitat Comprehensive Research Project, among others.

The activities of Niskamoon are set out in a detailed and comprehensive annual report, which is distributed and made available to the members of the Cree Nation through their Band Office. Financial statements are audited annually by an external auditor and are part of the annual report.[b]

[a]Sources: Personal communications, 2018-2019
[b]Sources: Review of project materials; project staff interviews; personal communications 2018-2019; Niskamoon Corporation Annual Report

OPTIMIZE IMPLEMENTATION THROUGH GOOD GOVERNANCE AND TRANSPARENCY

There are several keys to generating community trust and mitigating risks of corruption and elite capture—situations in which community benefits flow unfairly to only a small group of privileged individuals. It starts with giving communities a voice and a role in decision processes on management and allocation of funds. For example, the community should have input on the design of infrastructure, livelihood, or other community development program, which should be consistent with the local development plan.

In ensuring good governance of their benefit-sharing programs, developers have deployed a variety of participatory engagement tools. Community participation can focus on what a successful community development program looks like and on setting objectives, success indicators, and target groups. Community feedback also can be sought on selection of program location and service providers, among others. Community members can help monitor benefit-sharing activities and provide feedback on ways to improve the results.

Plan this participatory engagement with care, however. Also make sure that everyone clearly understands the goals of the participatory engagement, and the roles and responsibilities of all involved.

Transparency is also key. Benefit-sharing program objectives, selection rationale and beneficiary recipients, results of activities should all be made public. Additional lessons learned and considerations in promoting transparency are discussed in the next section on the importance of monitoring and reporting.

Investing in good governance as part of exit planning

Equally important are efforts aimed at building the community's capacity to self-govern. Some projects, such as those of ISAGEN in Colombia and SN Aboitiz Power in the Philippines, have incorporated formal capacity-building efforts into their benefit-sharing programs, with a specific focus on improving village governance skills (for more see case study volume in this Report Series).

In many contexts, relying on the government to take over—or counting on leveraging government funding—can be risky, due to lack of resources and capacity. Still, it is a good idea to seek out ways to coordinate with and build the capacity of government authorities in areas such as managing the local job seekers database, strengthening their IT systems, and supporting local development planning.

As noted earlier, developers also can optimize their efforts by coordinating with partners that are active in the area.

BOX 2.6 Designing effective benefit-sharing agreements

3 ways to build trust in negotiating benefit-sharing agreements

1. Appoint a representative standing committee and trusted moderator, perhaps through community election
2. Enfranchise women and under-represented and marginalized groups
3. Certify the agreement as legally binding

7 tips on designing an effective benefit-sharing agreement

1. Define a way to calculate project contributions to community development that is easy to monitor and verify
2. Incorporate local procurement development targets to encourage increased local contracting
3. Add escalating employment targets to account for increasing local community capacity
4. Emphasize community development projects with wider impact to benefit multiple communities
5. Include an independent grievance mechanism to lodge grievances without fear of retribution
6. Build in gender-aware approaches
7. Specify outreach to under-represented and marginalized groups

Source: Boakye, B. et al.2018. "Implementing the Ahafo Benefit Agreements: Seeking Meaningful Community Participation at Newmont's Ahafo Gold Mine in Ghana." Canadian International Resources and Development Institute (CIRDI) Report. 2018-003

OPTIMIZING IMPLEMENTATION

ISAGEN PROJECTS | San Carlos, Sogamoso, Miel I, Termocentro, Jaguas, Río Amoyá-La Esperanza, and Calderas, Colombia

Tailoring benefit-sharing structure to conflict-affected project context

ISAGEN embeds extensive local benefit-sharing into all of its hydropower projects. The institutional arrangements for management of the programs vary depending on the realities on the ground and community-specific situations, to enhance effectiveness. ISAGEN's projects operate in parts of Colombia recovering from significant upheaval, following years of conflict between government forces, paramilitary groups and the Revolutionary Armed Forces guerrillas—FARC—who had occupied large swathes of the region.

Among the benefit-sharing programs provided in some communities are efforts that support post-conflict healing and reintegration efforts, in partnership with

Sasaima villager near the Miel project. *Credit: E. Wojczynski*

other companies active in the area. "It is not possible to have a viable company in an unviable region," explained one company CEO during an interview with the research team.

In some situations, ISAGEN partners with local NGOs, along with the municipality and community committees, to manage implementation of programs such as rural youth education and peaceful coexistence dialogues. In other situations, such as in the arrangements for the Amoya 80 MW run-of-river project, ISAGEN relies on the citizen-based decision-making structure that had been the norm when the FARC guerillas controlled the area. The communities surrounding the Amoya project have full control over setting up and implementing their own development projects, with direct funding from the various stakeholders that have a presence in the area.

This flexible approach to implementation has helped foster positive working relationships between the company and local communities, while strengthening community bonds and fostering peaceful dispute resolution processes. In the past, said one village leader, "When we had disagreements we would have half the village on one side and the other half with an opposing view." Today, with the skills gained through ISAGEN's benefit-sharing program, "We learned how to use community processes to deal with the issue and bring the village back together again."

In interviews, ISAGEN staff highlighted several keys to their successful benefit sharing—particularly given the variety of institutional arrangements supporting implementation:

- Frequent community meetings
- Permanent communication with municipalities
- Experienced staff who know how to build relationships
- Multimedia information campaigns tailored to communities: brochures, wall displays, radio, website
- Ability to contact company even from remote areas

Sources: field visits, interviews with staff and community members and follow-up communications, 2018–2019

Leveraging program design, implementation, and funding with governments, development agencies and institutions, other companies and nongovernment organizations can increase the reach and impact of the benefit sharing. It can enhance effectiveness by bringing to bear the resources and capabilities of such organizations. And it can increase legitimacy and offer options for program continuation once the developer disengages.

BUILD IN ROBUST MONITORING, INFORMATION AND RESULTS SHARING, AND ADAPTIVE MANAGEMENT

Monitoring impacts of benefit-sharing programs will enable accurate assessment, to ensure that initiatives are meeting their intended objectives. It is a good practice to define targets and key performance indicators at the very start. Include measures such as cash income, literacy, health, and access to water, roads and electricity, among others.

A growing number of developers are deploying standard monitoring measures to assess the positive development impact of their benefit-sharing programs. Several of those interviewed indicated that such efforts help to gage effectiveness, measure progress towards meeting targets, and identify communities most in need of benefit sharing. They also form a strong basis for reporting—and for enhancing credibility.

"The reality is that you will never get everything perfect immediately. There is an ongoing process of learning and working on the problems and improving. We learned from experience the importance of more frequent public reporting. It created greater transparency and enhanced the project's credibility."

—*Project staff, Theun-Hinboun Power Company*

For instance, staff who worked on the development of the Theun-Hinboun project realized the importance of continued reporting and transparency as a result of their experiences with the Nam Theun 2 and Khimti projects. In undertaking Theun-Hinboun, the developers aspired to greater transparency. To date, they have published reports on the two main phases of the project. They also produce an annual monitoring report that includes information on what is going well and where improvements are needed. It highlights issues that have arisen and the steps being taken to address the issues.

Reporting to communities, stakeholders and the public on benefit sharing offers several advantages:

• Increases transparency and accountability

• Encourages participation in the programs

• Strengthens developer-community relationships

• Enhances image of the developer and project

Such reporting can take a variety of forms: community presentations and meetings, brochures or pamphlets, bulletin board posters, radio announcements, corporate websites, media releases and formal reports.

In situations where companies make payments to the district or local governments, sharing information about what the government is receiving can help build institutional accountability. It creates a demonstration effect that will encourage communities themselves to demand greater transparency from their local government.

Modify program if targets are not being met

In the course of project monitoring, it could turn out that objectives are not being achieved. In such circumstances, developers use adaptive management techniques to make course corrections and modify programs as needed.

To facilitate adaptability, company strategies and plans should be flexible and not overly prescriptive. If possible, they should incorporate designated points for a formal review.

Local stakeholders and organizations have roles to play in adaptive management as well. They can support monitoring and progress evaluation, concurring when a course change is needed.

To ensure as comprehensive an approach as possible, be sure to incorporate the perspectives of all stakeholders targeted by the benefit-sharing programs. This includes women, youth, small business owners, vulnerable populations, and others. Doing so also can serve to uncover flaws or gaps. For instance, the original design of a benefit-sharing program might not have taken into consideration women's preferences and concerns. During the monitoring process, gathering feedback from both male and female community members can help determine whether the program has met its intended objectives.

Third parties also can add value in the monitoring process. They can provide expertise and experience otherwise not available to the developer, communities, governments and financial institutions.

Survey and registration in Mataruka village.
Credit: Tina River Hydropower Development Project

APPLYING THE GUIDANCE

MEASURING AND REPORTING PROGRESS

PROJECT | Itaipu Dam, Brazil

Monitoring and public reporting help demonstrate benefit-sharing results

Itaipu Binacional has long understood the importance of monitoring and public reporting on the environmental and social programs associated with the Itaipu Dam—dating back to 2006. Recent reporting enhancements include aligning results with the United Nations Sustainable Development Goals. The reports also cover benefit-sharing programs that have been introduced through the years, such as a major tourism development initiative to capitalize on the draw of the powerful dam and scenic views. On-going monitoring includes indicators that measure progress towards targets set. Examples of results that Itaipu publicly reports include:

- Tourism: In 2019, 657,000 tourists visited the dam. Revenues generated from tourists fund tourism operations, which have created 300 direct and indirect jobs.
- Royalties: Itaipu pays royalties to the governments of Brazil and Paraguayan governments and Itaipu, based on monthly energy production. In 2018, these royalties totaled more than $498 million.
- Supplier development: All contracts signed by Itaipu go through a general bidding process, in which local suppliers—particularly micro and small companies—are prioritized. In 2018, the project paid out $199 million to suppliers; more than 71 percent of this spend corresponded to the hiring of local suppliers.
- Basic services: Itaipu provides extensive supports for basics such as health care and education. Reporting on this support includes the amount spent for the various activities, the types of services provided, and the number of beneficiaries. For example, in the two year period 2016–2018, the company provided $19 million to the Itaiguapy Health Foundation, which manages the local hospital. The Ministro Costa Cavalcanti Hospital treats an average of 12,000 patients each month. According to Itaipu's 2019 report, the company's financial contributions have enabled 46,000 outpatient visits, 2,000 surgeries and care for 1,000 people undergoing cancer treatment, among other procedures.

Source: Itaipu Binacional sustainability reports

APPLYING THE GUIDANCE

ADAPTIVE MANAGEMENT

PROJECT | ISAGEN, Colombia

ISAGEN confronts community dependency challenges

In Colombia, ISAGEN has focused on sustainability of positive outcomes, as part of its benefit-sharing program associated with the Miel project. A complementary goal is to reduce the risk that the community will become too dependent on the company. With a community development program designed to encourage self-management, the effort includes a significant capacity-building component, to increase governance and project management knowledge and skills. Communities also are required to provide cofinancing or in-kind contributions to support the program. Yet, there is heavy local reliance on the company's support. "It's a challenge for us because the community thinks of ISAGEN as a savior, given the lack of other support," said one company representative.

Meanwhile, village leaders have said that they are uncertain about what the future holds. "There is concern over what happens when the 10-year community development program is complete," said one Sasaima villager. "We know the program is voluntary but we are worried about it winding down. We want it to continue." The program has helped the community make progress and the hope is that the progress will continue, she said.

To mitigate these concerns, the company has committed to providing a reduced level of support once the most extensive benefit-sharing phase ends. For their part, village leaders have indicated awareness that the community will need to assume more responsibility for managing their needs going forward.

Source: field visits, interviews, communications, 2018–2019

Meetings with local communities during IFC field visit to Miel project site. *Credit: Amanda Díaz*

ADAPTIVE MANAGEMENT

SN ABOITIZ (SNAP) PROJECTS | Magat (380 MW), Ambukalo (105 MW), Binga (140 MW), and Maris (8.5 MW), the Philippines

Adapting to enhance business value and meet development goals

SN Aboitiz Power (SNAP) is a joint-venture partnership between Norway-based SN Power, a hydropower development company that operates exclusively in emerging markets, and Aboitiz Power Corporation, a subsidiary of Philippines conglomerate Aboitiz Group.

SNAP's benefit sharing includes a corporate social responsibility (CSR) program that allocates a voluntary fund from its annual corporate budget that local communities can access directly. The CSR fund is based on a percentage of the previous year's net income after taxes. These funds totaled 396 million Philippine pesos ($7.6 million) for the 11-year period 2007–2018. The goal of the CSR fund is to provide support in key results areas to address communities' development gaps. These results areas were identified and established at the beginning of SNAP's operations, following extensive community dialogue and consultation.

SNAP and the local government restore abandoned rice terraces through Project PUNLA, a SNAP environmental initiative. *Credit: SN Aboitiz Power*

Projects undertaken with these funds are initiated by the communities themselves. Guided by SNAP's CSR fund utilization policy, they develop project concepts and submit them to SNAP for approval. Company representatives evaluate proposals based on several factors: whether they contribute to community development and fit in with regional development plans, community capacity to manage the project, and community willingness to contribute a portion of the costs, among others.

In 2014, after extensive investigations and consultations, the company realized that the program did not address several critical issues:

- Environmental enhancement and protection
- Community governance: Funding was going offices and equipment but not governance and capacity.
- Scholarship process for community members

One reason for this was that community-initiated projects and processes tended to prioritize shorter-term improvements such as physical assets at the expense of longer-term investments and governance enhancements. To resolve the situation, SNAP revised its original CSR program, adopting an enhanced version called CSR 2.0. Among other changes, the shift to CSR 2.0 involved strengthening the company's role in community development planning.

In preparation for the updated CSR 2.0 program, the company conducted research and consulted with communities on their needs and funding sources. The research included a review of approved and implemented projects over the course of the previous six years. In assessing projects' impact on closing development gaps, the study helped identify initiatives that did not meet company and community expectations.

SNAP also reviewed its CSR fund utilization policy, modifying the criteria used to evaluate and approve proposed projects. Newly introduced processes included consultations, pre-review and regular consultations with local development partners—all put in place to enhance the quality and output of funded projects. Additional changes included a training program for local development partners and governments, to build their strategic development management skills. Participants created a development management strategy map, which will enable evaluation of newly proposed projects based on alignment with the strategy. Under this new broader framework, communities can still develop individual or specific project proposals. However, they must meet the new criteria. Advantages of the revised approach include:

- More assurance that investments have social and economic value and are aligned with local development goals and objectives
- Increased potential for equitable distribution among communities
- Stronger performance-based monitoring through a CSR database and geo-tagging technology
- Improved coordination with and participation from SNAP: beginning with project conceptualization and approval through implementation and monitoring
- Greater emphasis on creating shared value for the business, communities, and society in general through programs that:
  - enhance communities' strategic planning and project management capacity
  - have business value, such as improved hydrology through reduced soil erosion and sedimentation
  - offer socioeconomic and Indigenous cultural value through agroforestry and alternative livelihoods

Source: interviews with staff and follow-up communications, 2018–2019

Prof. Edel Guiza conducts a series of intensive trainings for SNAP's host local government units under SUCCEED. *Credit: SN Aboitiz Power*

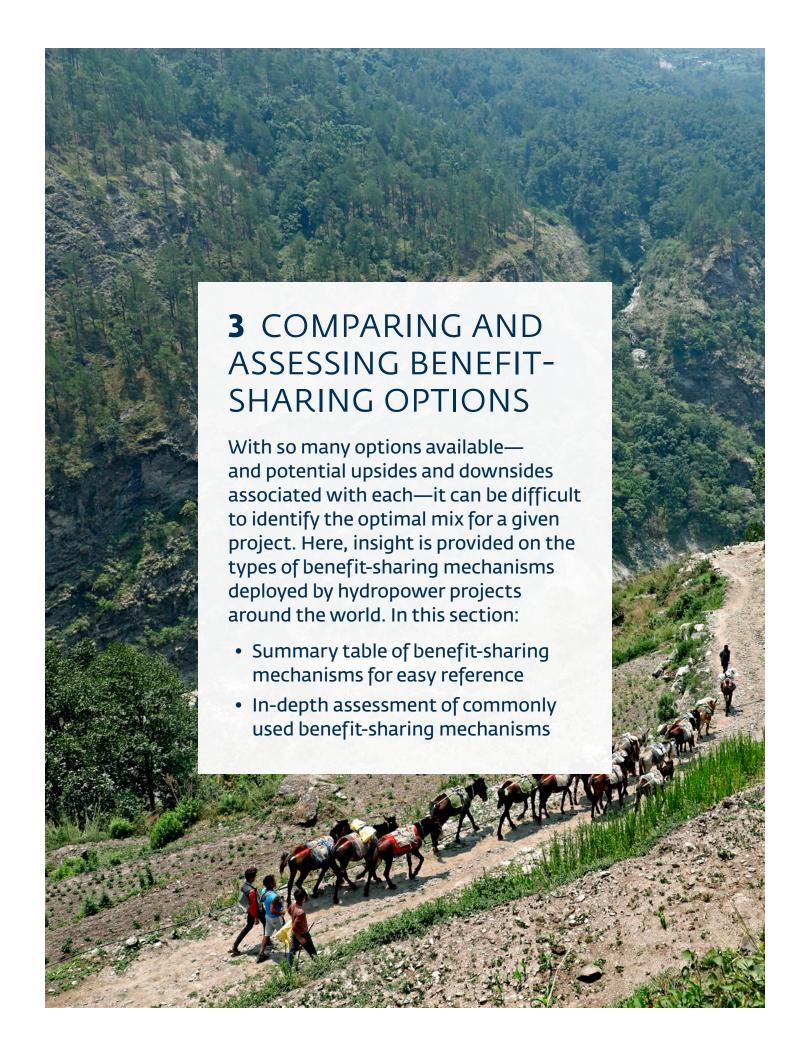# What Success Looks Like: A Benefit Sharing Good Practices Checklist

What are the characteristics of companies with successful local benefit-sharing initiatives? Here is a list of attributes.

- ✓ **Strategic long-term approach:** Gain commitment, buy-in, and support from investors, developer/operator and management team for addressing social and environmental issues and promoting community development.

- ✓ **Early engagement and alignment with communities:** Consult with and obtain input from communities beginning early in a new project, preferably before construction and possibly in conjunction with local government consultations. Managing community expectations from the start of consultations is an important component. Early consultations that ensure the participation of representative groups in the community, including women and the most vulnerable, result in better alignment with community priorities and local development plans. They also enable alignment of benefit sharing with impact mitigation efforts.

- ✓ **Sustained engagement with and empowerment of communities:** Communicate continuously with communities through all project stages and enable participation in collaborative planning and decision making. Such community involvement helps maintain alignment with local needs and preferences, uncover problems, and ensure legitimacy and acceptance. It also encourages communities to be part of planning and to think about their future rather than relying on the developer to devise concepts and manage initiatives.

- ✓ **Capacity building and livelihood enhancement:** Focus on long-term sustainability and prioritize efforts to strengthen local skills, livelihoods, and institutions. Emphasis should be on enhancing the community's ability to manage its own affairs rather than on short-term or temporary solutions such as income supplements.

Examples include encouraging local ownership of community initiatives, utilizing and strengthening local organizations, and supporting private sector growth and development in the target areas. (See Applying the Guidance on Adaptive Management for ISAGEN's efforts to prevent community dependency.)

- ✓ **Sufficiently broad eligibility for and diversity of programs:** Ensure that eligibility criteria and program offerings contribute to community stability and cohesion. This requires a thorough understanding of local power structures and dynamics to reduce the risk of resentment and conflict. It also means dedicating more time and resources to provide diversity in program design and timing, and sufficiently broad eligibility to enable equitable distribution of benefits. This diversity is critical, since communities often come with a range pressing needs and a heterogeneous mix of residents. Even with well-designed mitigation and benefit sharing it is likely that some impoverished local residents will remain poor, and some will always be disadvantaged or vulnerable. Developers might have to confront the question of what degree of responsibility they have towards groups unable to take advantage of opportunities, even when offered.

- ✓ **Governance and delivery:** Deliver programs in a straightforward manner, driven by a clear and inclusive governance structure that includes community input and supports sustainability of benefits over the long term.

- ✓ **Early timing of some benefits:** Design the project so that communities see tangible benefits early in the project life—even before construction starts. This can help build trust and enable fuller engagement with the project. It will take a careful effort and on-going communication to balance short-term wins with longer-term sustainable benefits.

✓ **Partnerships:** Work with a range of partners—governments, social service agencies, civil society and nongovernment organizations, educational institutions, other companies, watershed groups, suppliers, contractors, and others—to enable pooling of funds and collaborative implementation for broader initiatives.

✓ **Transparency:** Maintain open and honest disclosure about developer activities, processes, and results, including transparency about governance structures that guide decision making on benefit sharing. This can be particularly important when issues arise, as they invariably will. Clear and honest communication will enhance trust in these circumstances. Effective disclosure means identifying a variety of target groups for such communications—communities, governments, other stakeholders, and the public. It also means understanding the specific information needs of different groups and sub-groups. Lack of transparency and poor communication are common pitfalls, which can easily undermine the results of a well-designed benefit sharing programs.

✓ **Monitoring and measuring results:** Monitor outcomes and carefully implement a grievance process to enable adaptation and adjustment if benefit-sharing programs are not working or if circumstances change. Measuring results enables comparison against targets and against pre-project conditions. Such information enhances communication while providing transparency, accountability, and credibility.

✓ **Trained and committed staff:** Ensure that staff and consultants have a deep understanding of benefit sharing and its value, along with strong community relationship-building skills.

✓ **Flexibility and adaptive management:** In addition to setting clear objectives and commitments in program and project plans and agreements, be sure to include a degree of flexibility to respond to evolving or emerging issues and emergencies. Embedding such flexibility enables adaptation to meet changing needs. However, it also requires a greater degree of trust and coordination with communities to ensure that project objectives are met.

3 COMPARING AND ASSESSING BENEFIT-SHARING OPTIONS

With so many options available—and potential upsides and downsides associated with each—it can be difficult to identify the optimal mix for a given project. Here, insight is provided on the types of benefit-sharing mechanisms deployed by hydropower projects around the world. In this section:

- Summary table of benefit-sharing mechanisms for easy reference
- In-depth assessment of commonly used benefit-sharing mechanisms

Comparing and Assessing Benefit-Sharing Options

Overview: Common benefit-sharing mechanisms in hydropower projects

Most hydropower projects combine various benefit-sharing mechanisms to deliver benefits to local communities. How relevant this portfolio of community investments is to local priorities and how well it is implemented will in many ways determine the degree of trust and the quality of the relationship between communities and the project company. Challenges in designing and executing community programs should not be underestimated. As this chapter shows, each mechanism has potential advantages, but also concrete risks. It is likely, as with any investment portfolio, that some programs will underperform and some will exceed original expectations.

This section lists considerations that are specific to each mechanism, but it must be noted that these considerations are not intended to be comprehensive. There is more to be learned about success and risk factors. Some factors that are only applicable to a given context and therefore hard to generalize will always be present. An overarching message is that thorough design and active monitoring during implementation will remain among the key tools in ensuring advantages play out and downsides are managed.

Ngonye Falls West Bank Community meeting. *Credit: Western Power-Ngonye Falls*

TABLE 3.1 Summary table of benefit-sharing mechanisms for easy reference

Mechanism	Upside / Advantages	Downside / Risks
REVENUE SHARING AND SHARED OWNERSHIP (RS)		
RS1 Recurring payments to local government	» Straightforward and simple process » Cost certainty and predictability	» Only a small portion of the funds—or none at all—tend to reach communities; prone to risks of elite capture and corruption » Project funds often flow only after project is operational, while impacts may be felt earlier, possibly leading to community dissatisfaction, unless bridging payments/arrangements are made » Companies have little influence on how funds are spent and may not receive recognition
RS2 Recurring payments to local community	» Potential to strengthen community capacity and support community empowerment » Direct community influence over how the funds are spent » Often comes with high visibility and can generate greater community recognition of developer's support » Potential to help align project and community interests	» Project funds often flow only after project is operational, while impacts may be felt earlier, possibly leading to community dissatisfaction, unless bridging payments/arrangements are made » Risks of elite capture of funds, political interference, and poor fund management » If needed, community capacity building to manage funds may take a long time
RS3 Shared ownership	» Increased sense of community ownership along with greater sense of community capability, self-respect, and optimism » Potential to build community management capacity » Potential for high return from ownership » Closer alignment of company-community interests » Can help raise capital for the hydro project	» Can involve difficult, costly and long negotiating process that might not succeed » Difficulty in raising the funds for communities (if they must provide cash equity) » Time lag between investment and dividend flows » Risk that expected community returns do not materialize or the capital is lost » Measures to reduce community risks increase developer risks » Measures to increase community returns reduce developer returns » Governance structure can be complex and cumbersome
RS4 Preferential electricity rates and discounts	» Clear-cut program; ease of targeting intended beneficiaries (households and services) » Popular with communities	» Could require complicated governance and contractual structures since hydro companies typically are not responsible for electricity distribution » Potential to exacerbate inequalities in community » Potential for excessive and inefficient electricity usage by consumers » Potential to trigger migration in cases of free electricity provision
PUBLIC SERVICES AND INFRASTRUCTURE (PS)		
PS1 Essential (or basic) services **PS2** Community well-being and amenities	» Important visible benefit » Ability to address a broad-based, priority expectation » Ease of integration into local development plans » Potential to work in a partnership with a government	» Challenges with infrastructure maintenance and operation once developer exits due to lack of community and government resources » Risk that company could be increasingly viewed as a substitute for the government
PS3 Electrification and other energy services	» Important visible benefit » Ability to address a key community expectation	» Communities may not have means or understand logistics on how to pay for electricity bills » Could require additional payments to distribution and collection companies, which could require subsidies or increased electricity tariff for remote and already vulnerable / poor communities » Implementation can require complicated governance and contractual structures

Mechanism	Upside / Advantages	Downside / Risks
LOCAL SKILLS AND LIVELIHOODS (LS)		
LS1 Local employment and procurement	» Closer alignment between business needs (labor force), community, and government expectations (i.e. jobs, contracts) » Vital contribution to local economic empowerment: helps enhance local skill sets and increase employment options	» Supply of local labor could outpace available employment/procurement opportunities » Benefit may not be sustainable over long term » Procurement and employment may involve elite capture, benefiting wealthier and more educated community members » Community could lack needed skill sets for jobs or business contracts and require significant support and skills development » Negotiations on procurement contracts could take time » Local businesses could bid too high on contracts and require subsidies
LS2 Alternative skills and livelihoods	» Reduced dependency on direct project employment » Ability to capitalize on existing local assets, skills, and ambitions » Contribution to community self-esteem and socioeconomic empowerment	» Can take a long time » Prone to similar challenges faced by livelihood restoration measures » Can be an expensive, administrative burden: designing, implementing, monitoring requires extensive and consistent input over time
LS3 Local institutional capacity building	» Potential to improve long-term living standards and bring about deep systemic change, without superseding the state » Ability to plan for credible project exit » Increased likelihood that local partners, including communities, will be able to drive well designed and more sustainable local projects » Helps ensure durability of community agreements over time, despite political turnover through elections	» Benefits take time to materialize, making it difficult to create an immediate impact or a quick win » Communities might not credit the project developer for resulting improvements » Measures could benefit wealthier and more educated community members, increasing the risk of elite capture. » Some institutions might not be open to outside assistance, creating challenges in gaining buy-in
ENVIRONMENTAL STEWARDSHIP (ES)		
ES1 Environmental enhancements with community benefits including payments for environmental or ecosystem services (PES)	» Often a win-win for the developer and local communities as programs often target watershed protection » Yields multiple benefits for business and communities » Helps address expectations of stakeholder groups advocating for better environmental protection and biodiversity conservation	» Actions taken to protect environmental services could be temporary, resulting in loss of all benefits » In cases of PES, amounts might not be sufficient to keep communities interested in participating » Risk that communities or individuals could ignore or actively work against environmental goals, resulting in loss of benefits » Customary ownership could pose issues » Changes in community awareness or practices may take a long time to materialize; even more challenging if changes run counter to customary beliefs and practices
ES2 Low carbon community development and climate resilience	» Yields long-term value to community » Risk reduction for community and project: especially where climate-related difficulties occur and communities direct their concerns and grievances to the project » If linked with livelihood activities such as sustainable tourism, can offer income generation opportunities	» Communities might prefer programs with more immediate, short-term benefits » Implementation requires changes in community practices; it could be challenging to gain buy-in and ownership or ensure sustainability » Implementation often requires hard-to-find technical expertise

In-depth assessment of commonly used benefit-sharing mechanisms

This section describes 12 of the most commonly used benefit-sharing mechanisms in hydropower projects—based on a review of the literature and extensive interviews with key players in the hydropower sector. Here, mechanisms are reviewed, with a look at the potential upsides and downsides to be considered. This section also offers recommendations for the design and implementation of various benefit-sharing mechanisms from the developer/operator perspective. Accompanying each description are real-world examples of how these various mechanisms were put to use. They are organized under the four broad benefit-sharing categories:

REVENUE SHARING AND SHARED OWNERSHIP (RS)

PUBLIC SERVICES AND INFRASTRUCTURE (PS)

LOCAL SKILLS AND LIVELIHOODS (LS)

ENVIRONMENTAL STEWARDSHIP (ES)

Unless otherwise noted, this section draws on extensive interviews and communications with hydropower project developers and experts undertaken during the research period 2018–2019 to provide real-world examples of how mechanisms are being deployed. It also draws on project document reviews and other desk research to extract key advantages, disadvantages, and implementation recommendations.

REVENUE SHARING AND SHARED OWNERSHIP (RS)

RS1 Recurring payments to local government

» Royalties
» Regional and local funds

RS2 Recurring payments to local community

» Prescribed, negotiated or voluntary payments
» Community development funds

RS3 Shared ownership by community and/or local government

» Distribution of profits/ dividends
» Co-ownership of asset

RS4 Preferential electricity rates and discounts

» Preferential rates
» Discounted energy bills
» Free electricity

RS1 RECURRING PAYMENTS TO LOCAL GOVERNMENTS

Definition	Prescribed, negotiated, or voluntary payments and fees, or other specific and consistent or recurring payments that are received at the local government level. This can include payments/fees for permits (water, road access), and royalties paid or transferred to local government. Funds are used for the benefit of the local communities.
Value/Upside	• Straightforward and simple process with no negotiations required with communities • Cost certainty and predictability
Risks/Downside	• Project funds typically flow after the project is in service, while many of the impacts to the community and potential for project objections occur earlier. • Frequently, none or only a portion of the funds reach the communities directly; sometimes they are not even aware such funds have been collected. The funds are often used by government for general purposes; if used to provide benefits to communities often the funding is diluted across a wider range of communities than those in the project affected area. • Companies have no or little influence on how the funds are spent and receive no or little recognition from the local communities. • Funds prone to the risks of elite capture and corruption. Transparency on the use of funds is typically lacking.
RS1 Implementation recommendations	» Thoroughly investigate local and national laws: Such payments are typically required, meaning that developers might not have a choice on whether to incorporate this mechanism into their programs. » Depending on the context, consider partnering with a capable local organization and exploring capacity-building opportunities targeting the local government. This can ensure that funds are spent according to their original purpose and respond better to the local population's needs. Examples include support for developing or updating existing local development plans, training for local government staff on financial planning, procurement, monitoring, and reporting. In addition to these skills, participatory engagement techniques can be an important area of focus of such capacity building programs. One such technique is participatory budgeting, in which community members decide on how to spend part of a public budget. » To ensure that local communities are aware of potentially significant benefit-sharing streams, include additional information dissemination and capacity-building measures. Communications should be designed in the appropriate form, content, style, and language to ensure universal access—including those with low literacy. This may require an initial survey to determine how people access information, local languages spoken, and the issues of interest for different groups. » Consider providing specialized communications training for those considered local information sources, such as local male and female leaders, youth leaders, and radio hosts. This will enhance buy-in and ensure that accurate information is shared widely.

How it works

Nepal's 2015 constitution vests local governments with greater authority. The constitution's enactment triggered changes in the way natural resources companies—including hydropower companies—were to provide government royalties. As of 2017, each of the three tiers of government receive a share of funds, with the federal level allotted 50 percent and state and local governments each receiving 25 percent.[38] To determine which local governments receive a portion of the local government allotment, the hydropower royalty-sharing mechanism calls for 50 percent apportionment based on project location, 25 percent based on affected areas and 25 percent based on affected population.[39]

In **Colombia**, ISAGEN understood that local authorities needed to be better prepared to manage royalties. Municipalities typically used the royalties for various environmental projects and public infrastructure. For ISAGEN, it was important to ensure that funds were invested transparently and in priority activities to drive community development. The company implemented a capacity-building program to maximize the use of royalties generated by the operating plant. Each municipality was notified of all the royalties paid, with the amounts published in monthly bulletins. The project has maintained records of amounts paid, dating back to the start of operations. ISAGEN also published a brochure explaining the royalty system and how communities can get involved.[40]

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[38] Jalsrot Vikas Sanstha (JVS)/GWP Nepal. "State of Conflict on Water Resources and Benefit Sharing in Marsyangdi River Basin." January, 2019.

[39] Rijal, Prahlad. "Province 3 to receive lion's share of energy royalties." Kathmandu Post. June 16, 2019.

[40] World Bank. 2017. "Better Hydro."

RS2 RECURRING PAYMENTS TO LOCAL COMMUNITIES

Definition	Prescribed, negotiated, or voluntary payments at the community level—into a community development fund or bank account controlled by community members, for instance. In some countries, including Ghana, Lesotho, Thailand—and, in some circumstances, as for Canada—community funds are required by law. These payments can be used to pay for local development projects or activities that benefit the community. Payments for land are not included in this category because they are considered a compensation mechanism.
Value/Upside	• Helps promote community-driven development and empowerment through community decision making on allocation of funds • Helps manage community expectations on project benefits: It has high visibility and can generate greater community recognition of developer's support • Helps align project and community interests: Depending on how payments are set up, it also can contribute to risk sharing. Examples include payments linked with project profitability. Such alignment can help strengthen community-developer relationships.
Risks/Downside	• Project funds typically flow after the project is in service, while many of the impacts to the community and potential for project objections occur earlier. To address this, projects can start payments earlier or designate an additional, dedicated budget for community projects to start prior to and during construction. • Elite capture of funds is a risk, since the community's elite might have more ability to take control over the fund allocation process. • Political interference and poor funds management pose risks. • For companies, the potential for disputes and delays could increase, given length of time it takes to negotiate agreements.

RS2 Implementation recommendations[41]	» Ensure that decision-making processes on funds allocation are efficient, transparent, and accountable, with public reporting and/or external verification to enable oversight.
	
	» Ensure that decision-making processes are inclusive of various community perspectives. For example, women's needs and concerns frequently differ from those of men. These needs and concerns are often overlooked when community projects are being developed.
	
	» If a community fund is created:
	
	  • Conduct a careful stakeholder analysis and, if needed, a political economy analysis, to understand the best way to structure and promote representation. In creating new institutions, there is a risk of unintentionally replicating power imbalances or existing power structures.
	
	  • Ensure that the organizational infrastructure includes strong management and clear disbursement rules to handle revenues. Several of those interviewed indicated that this is the preferred approach because they viewed it as an optimal way to ensure that community development goals are supported.

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[41] Note that this analysis presumes that monies transferred to a fund are controlled by the local community or a set of communities. Some projects have made use of cash transfers to individuals. The upside with individual transfers is that there is no dilution with other communities and no elite capture. The major downside is that funds tend to be accessed for immediate uses with little investment in community development.

RS2 Implementation recommendations continued	• Identify the optimal approach for establishing the fund manager: It can be a newly created community entity, government department, or a third party. Note that establishing a new legal entity can take time and come with a significant administrative burden. Capacity building also might be needed. • Build transparent community engagement for input into decision making on fund objectives, selection of community projects, and conditions for project disbursements. • Consider involving an "honest broker"—a neutral party that can help facilitate initial engagement processes, rebalance power and informational asymmetries, and ensure broader community input into the design/functioning of the community fund.

How it works

In **India**, the northern state of Himachal Pradesh enacted policies that influence hydropower developers' approach to benefit sharing—including the developers of the Rampur Hydropower project. The policy requires earmarking 1.5 percent of the final cost of the hydropower project (above 5MW) for a local area development fund (LADF). This fund finances infrastructure development as selected by local communities in the project area.[42] After commissioning, projects also must donate 1 percent of the power generated to government's energy directorate, which sells the power and transfers the revenues to the LADF. This revenue is used to fund community development initiatives. The fund is administered by a local area development committee. The composition of this committee varies depending on the size of the project, but it typically includes representatives of the developer, local government, and affected communities.[43]

In **South Africa**, the developers of the 4.5 MW Stortemelk Hydropower project—located on the Ash River, near Clarence in the Free State Province—put in place a mechanism to share revenues with the local community. Instead of setting up a new entity, funds flow to an established local non-profit that was already working with local communities in the area.

Nachtigal stakeholders. *Credit: Stephanie Sines*

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[42] Orlando. 2018. "Getting to Gender Equality in Energy Infrastructure."
[43] Government of Himachal Pradesh. Revised LADF Guidelines. October 5,2011.

RS3 SHARED OWNERSHIP[44]

Definition

Community or government ownership of a commercial developer's renewable energy project. Depending on ownership structure, this can imply sharing in project assets and the dividend stream, as well as a potential role in governance and decision making. Ownership might require capital investment. In other circumstances, an investment might not be needed, such as when a value is ascribed to the land, to the right to use the land and water, or where a value is ascribed to support by the community for the project. Depending upon the arrangement, shares are owned either by individuals, by the community as a whole or by a third party entity such as a local government. The community can control this shareholding entity, or it can be set up as a separate independent entity solely for the purpose of the shareholding. The selling of shares is considered benefit sharing if the shares are offered at a discount and/or there are other purchaser protections built in.

Typically, the commitment to co-invest would occur during the pre-construction or the construction stage. Dividends and/or capital appreciation happen during the operation stage. In some cases, however, the actual flow of investment funds from the community might not occur until the project comes into service.

Value/Upside

- Enhances community ownership, capability, self-respect, and optimism
- Builds community management capacity, which can help with community governance and in pursuing other business opportunities
- Offers potential for high returns, particularly when there are significant upsides, including growth in asset value
- Can boost self-confidence and self-reliance of individuals who purchase individual shares
- Can assist in raising capital for the hydro project investment
- Helps build strong alignment of interests between project and community
- Contributes to managing community expectations on project benefits

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BOX 3.1 A comparison of individual and community shared-ownership options

Potential advantages of individual ownership

- Reduces risk of elite capture (if shares are provided to all members, not just those with sufficient capital) and dilution of funds to purposes not directly connected to community
- Empowers individuals and builds personal financial skills and capacity
- Paves the way for individuals with large numbers of shares to receive developer board or management appointments[46]

Potential advantages of community ownership

- Increases likelihood of expertise in investment decision making and management
- Increases likelihood of using returns for long-term community development and meeting community development goals
- Reduces risk that revenues will benefit only well-off individuals
- Reduces risk of negative impacts on individual wealth if value of shares declines
- Reduces risk that individuals will go into excessive debt to purchase shares
- Offers greater potential for more inclusive benefits that flow to disadvantaged, vulnerable, and marginalized community members

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[44] For more on shared ownership, see this first-ever analysis of the local shares mechanism and its use in hydropower projects: Rai, Nirjan; Padmendra Shrestha et al. 2018. "Local Shares: An In-Depth Examination of the Opportunities and Risks for Local Communities Seeking to Invest in Nepal's Hydropower Projects." Washington, D.C.: IFC. Also see: Podlasly, Mark and Suzanne von der Porten. "Infrastructure." July 10, 2019. First Nations Major Projects Coalition; and First Nations Major Projects Coalition. "Indigenous Ownership of Electricity Infrastructure: A Case Study." May 24, 2020.

[45] This is a recent trend in South Africa. As part of the "Black Industrialist" approach, local individual investors can purchase shares using concessionary lending rates, allowing them to accrue a larger stake in the company.

Risks/Downside

- Distrust between the communities and the developer can lead to a difficult and complex negotiating process. Lengthy negotiation processes can delay construction, increase costs, and create public controversy. Inclusion of neutral parties or international non-governmental organizations can help ease the tensions.

- In situations where the community or individuals are expected to provide investment capital, it could be difficult to raise funds.

- Funds invested by the community would not be available for other purposes such as community development until project dividends flow.

- In cases where capital is borrowed, the time lag between investment and flow of dividends can be significant. Use of the mechanism could exacerbate inequalities, including community and household gender inequalities.

- Expected returns might not materialize, or the capital could be lost. In many investment situations, provisions in the agreement will reduce financial risks to the community, but they typically do not involve a full guarantee. For example, the developer or some other entity could guarantee against loss of the capital but not the returns.

- If measures are taken in the investment arrangement to reduce the financial risks to the community or increase the return to the community, the developer's risks increase and returns are diminished.

- During construction and operation there may be disputes with the community in its role as co-owner—despite the fact that the community had been supportive during the development process. In addition, some community members will remain opposed and may create controversy, regardless of whether the majority of the community favors the project.

- If the return on shares diminishes significantly from what was expected, the community could pressure the developer to renegotiate the terms of the arrangement.

- The governance structure can be complex and cumbersome.

RS3
Implementation recommendations[41]

» If shares are individually owned, consider setting up a financial education program—both before and during ownership—to promote informed choices. Specifically targeting local women leaders and representatives of other vulnerable and underserved groups for such financial literacy programs can help address inequities while enabling expanded reach, as these leaders can be encouraged to share their knowledge with others in their sphere of influence.[46]

» Pay careful attention to the gender dimension in equity ownership. It will be important to understand women's land-based livelihoods, household and community-level registration of assets, and spousal co-ownership rights and titles, among other elements. When dividends flow into a household, there may be an assumption that the funds will be shared equally. But frequently, this is not the case. To address this, provide assistance for male and female community members alike in setting up their own bank accounts. Also consider providing individual amounts directly to each community member, or allow the wife to distribute the amount within her own household.

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[46] IFC. 2018. "Local Shares Summary Report. An In-Depth Examination of the Opportunities and Risks for Local Communities Seeking to Invest in Nepal's Hydropower Projects."

RS3 Implementation recommendations continued	» In situations involving a community investment and/or ownership, consider setting up a special share arrangement—in which the returns are partially or wholly fixed for a minimum guaranteed return—which can reduce the risk of poor returns. Note that this arrangement likely requires the developer and other shareholders to assume the additional financial risk.
	» Consider ways to reduce risks to community members, such as by delaying the timing of the investments until construction starts or when commercial service begins, although this approach increases risk to other shareholders.
	» In situations where communities and individuals have limited ability to raise investment capital, consider providing favorable financial arrangements to help. This could take the form of leveraged loans, risk reduction arrangements, and loan guarantees. Depending on circumstances, several sources of funds may be available: personal or community funds, developer loans, loans from national banks or government entities with developer assistance, and government or philanthropic organization grants.

How it works

In **Nepal**, the national constitution gives project-affected communities a right to invest in natural resource developments.[47] The emerging practice is for hydropower companies to provide local communities with a preferential opportunity for an up-to-10 percent equity investment in their project through a mechanism known as "local shares." Through local shares, individuals in the project area can purchase shares in the company that owns and develops the project. These arrangements have proven popular with local residents who live near hydropower projects. However, the economics of hydropower projects in Nepal have deteriorated. Some shares have dropped below the original purchase price. Such price volatility and economic risk could affect the future popularity of such approach. (For more, see case study volume in this Report Series.)[48]

In **Canada**, many hydropower projects are structured as equity partnerships. Typically, the equity partners are local Indigenous communities that own shares, either directly or indirectly such as through a holding developer. The approach has gained widespread acceptance in Canada, the United States, and elsewhere. A recent estimate suggests that more than 60 power generation, transmission, and distribution projects globally include Indigenous and local community ownership.[49] For example, in 2019, electricity transmission and distribution service provider Hydro One completed a major transmission project, the 76-kilometer Niagara Reinforcement Line. The project is owned in partnership with two First Nations, Mississaugas of the Credit First Nation and Six Nations of the Grand River First Nation, through the Six Nations of the Grand River Development Corporation. A6N, an Indigenous-owned contractor, constructed the line.[50]

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[47] Article 59(5) provides that while using the natural resources by the federal, provincial or local government, the local community shall be given priority to make investment in such percentage as specified by the law on the basis of nature and size of investment.

[48] IFC. 2018."Local Shares Summary Report."

[49] Podlasly and von der Porten. "The Role of Indigenous People in Major Project Development."

[50] Hydro One. 2019. "For the Possibilities of Tomorrow." Sustainability Report 2019.

RS4 PREFERENTIAL ELECTRICITY RATES AND DISCOUNTS

Definition	Reduced rates for already existing electricity services—negotiated for eligible groups, such as communities or local businesses. This mechanism could be a logical choice for vertically integrated developers and developer/retailer partnerships.
Value/Upside	• Addresses a frequent expectation—for improved access to electricity and reduced energy costs—and yields important and visible community benefits • Enables a quick win: Given relative simplicity in identifying household-level beneficiaries at the household level and in providing priority community services such as clinics and schools, it is easier to communicate the value.
Risks/Downside	• Equality gaps could widen further. Households without electrical connection do not benefit, so poor households receive less benefit than wealthy households. • Heavily subsidized or free electricity could increase risk of excessive and inefficient power usage. • Free electricity could trigger migration into the area, which the community might not want, and which could increase costs to the developer. • Hydropower companies typically are not responsible for electricity distribution, so implementation often requires complicated governance and contractual structures.
RS4 Implementation recommendations	» Deploy during the operation stage or earlier. » Consider engaging with the government to combine subsidies with a more comprehensive electrification program for even greater benefit.
How it works	In **Norway**, the Glomma and Lagen basins contain 2,165 MW of hydropower, developed more than 50 years ago. At that time, compensation and benefit-sharing programs did not exist. Current Norwegian legislation allows for preferential electricity rates, along with other types of benefit sharing. As a result, the communities in the Glomma and Lagen basins were able to negotiate subsidized electricity rates for their residents.[51]

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[51] Lillehammer, Leif, et al. 2011. "Benefit Sharing and Hydropower." SWECO Report. World Bank.

⚏ PUBLIC SERVICES AND INFRASTRUCTURE (PS)

PS1 Essential/ basic services

» Education, health, water, and sanitation infrastructure

» Scholarships and grants

» Disaster relief

» Deliberate enhancements to project design and infrastructure that benefit local population, such as roads and bridges

PS2 Community well-being and amenities

» Culture, music—such as choirs and festivals—and sport activities

» Recreational and tourism infrastructure for cultural benefit

» Community and market centers

PS3 Electrification and other energy services

» Electrification (infrastructure, connection costs)

» Energy efficiency and conservation

PS1 ESSENTIAL/BASIC SERVICES

Definition	Facilitating or supporting the provision of essential (or basic) public services: roads, water, sanitation, solid waste disposal, health, education. Activities can include construction of infrastructure, such as schools, medical facilities, and water supplies or long-term assistance to maintain and operate such facilities. Efforts under this umbrella include modifying or extending project infrastructure and amenities to benefit local communities and the region. Other efforts might involve deliberately adjusting project design and reservoir operation plans to enhance community uses such as irrigation, water supply, flood control, fishing, and aquatic transport.[52]
	A review of the literature and interviews with company spokespersons revealed that such public service and infrastructure improvements are among the most frequently deployed benefit-sharing mechanisms around the world.
Value/Upside	• Addresses a frequent, priority expectation—for access to basic services—and yields important and visible community benefits
	• Offers opportunity for effective integration of benefit-sharing assistance with existing local development plans
	• Offers potential to partner with local government as the provider of public services
	• Can advance community gender equality goals, if public service provision is designed to address pressing gender gaps, such as educational outcomes, water, and energy supply
Risks/Downside	• After the developer exits, proper maintenance and operation of public infrastructure maintenance and operation could pose challenges, due to lack of community and government resources.
	• The developer could face increased pressure for additional support as infrastructure and services degrade.
	• The community could lose control and access if developer restricts access to facilities-related equipment or infrastructure, such as with a developer-controlled water supply plant.
	• Unclear eligibility and unequal access to public services can trigger inter and intra-community tensions.
	• Decision making on public service infrastructure—such as what to build and where to build it—can be difficult and prone to elite capture.

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[52] Note that local infrastructure improvements for the project's own needs and to meet various planning or environmental requirements—such as access roads, substation construction/upgrades, road tarring/widening, fences, diking—are not considered benefit sharing unless additional efforts and investment were made to benefit the community.

PS1 Implementation recommendations	» To enable the design modifications necessary to provide benefits, start planning in the project preparation stage: If considered early in the planning, modifications to enhance infrastructure for communities—such as addition of boat ramps, access to reservoir roads, and adjusted road alignment—might not add much to project costs. In addition, reservoir operation rules and constraints that could benefit communities are best incorporated during the regulatory phase, such as prescribed flow releases or reservoir level fluctuations. This is particularly true if the project involves modifications to multi-project multi-reservoir schemes. Implement during the operations stage or earlier during the construction stage. » Enable equal and open access to infrastructure and programs. » Convene consultations with various community groups, including youth and women, to ensure inclusive decision making on basic infrastructure services—what to provide, how to design and where to locate. » Set clear eligibility rules: Since access to public services is a common demand and yields clear benefits, setting these ground rules will be critical to avoid tensions and conflicts over public services access and sharing. » Align infrastructure plans with local and regional development plans. » Lend developer expertise—such as engineering resources—to help communities and local government as they move forward with implementation of their broader development plans. » Spell out roles and responsibilities and establish exit/sustainability plan: Reach agreement with communities and local governments on construction and operation of infrastructure and provision of services, particularly after the developer disengages.

How it works

In **India**, the Teesta-V project undertakes local community projects in health, education, water supply and sanitation, and other needs, such as training for women. These projects fulfill a government requirement that large companies must invest 2 percent of their average net profits in corporate social responsibility programs in the local area. Although the project's annual CSR budget was 13.5 million Indian rupees ($194,000) in 2018-2019, NHPC, the project owner and operator, tends to invest more than officially required. These efforts—above and beyond the mandate—have earned the project a positive assessment by the Hydropower Sustainability Council.[53]

In **Lao PDR**, the developers of the Nam Theun 2 project modified the design of their downstream channel and regulatory pond to create a series of channels that would provide irrigation for local farms. This demonstrates the value of considering benefit enhancement to communities early in the project design and construction stages, when it can be the most cost-efficient.

In **Norway**, Statkraft modified the operation of its multipurpose reservoirs to include storage, enabling a more reliable irrigation and municipal water supply, along with flood protection. The developer adjusted reservoir operations to address increasingly frequent rain and flood events and to reduce flooding risks for downstream communities compared to communities on unregulated rivers. To enable this, operators draw down reservoirs in anticipation of short-term floods based on updated forecasting techniques. Such storage drawdowns can detract from economically optimal operations. The company takes these actions as needed even though they could experience a financial loss.[54]

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[53] Hydropower Sustainability Council. 2019. Teesta-V Assessment.

[54] Statkraft. 2019. "Hydropower: Flood control as civil protection." *Explained by Statkraft*; Hydropower Sustainability Assessment Council. 2012. Jostedal Assessment; World Bank. 2017. "Better Hydro: Compendium of Case Studies." Case study 7: Economic Viability: Hvammur: Iceland; Hydropower Sustainability Council. 2013. Hvammur Assessment.

PS2 COMMUNITY WELL-BEING AND AMENITIES

Definition	Facilitating or supporting community welfare through sports, culture, music, recreation, and the arts. Among the benefit-sharing activities under this umbrella: construction and operation of community amenities such as community centers, market places, internet connectivity, and sport fields and other recreational infrastructure. Other supported activities can include development programs, and donations and sponsorships for community choirs, bands, and festivals.
Value/Upside and Risks/Downside	The value/upside and risks/downside are similar to those associated with PS1, the provision of essential/basic services.
PS2 Implementation recommendations	The implementation recommendations are similar to those associated with PS1, the provision of essential/basic services.
How it works	In **Iceland**, the state-owned Landsvirkjun, which generates 75 percent of Iceland's electricity, is the developer of the 82 MW Hvammur hydropower project, involving damming the Þjórsá River. As part of its benefit-sharing program, the project provided cable connections to every farm within the municipality Skeiða og Gnúpverjahreppur, enabling access to the internet for the first time.[55] In the **Philippines**, SN Aboitiz Power (SNAP) has put in place an extensive set of community benefit programs. Programs provide a variety of basic services and community well-being activities such as support for Indigenous ecotourism, traditional culture documentation, and social infrastructure. SNAP, like many companies, deploys several benefit-sharing mechanisms simultaneously as a way to optimize their contributions to local communities.

SNAP consults with Ayangan Indigenous People about the proposed new hydroelectric facility. *Credit: SN Aboitiz Power*

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[55] World Bank. 2017. "Better Hydro: Compendium of Case Studies." Case study 7: Economic Viability: Hvammur: Iceland; Hydropower Sustainability Council. 2013. Hvammur Assessment.

PS3 ELECTRIFICATION AND OTHER ENERGY SERVICES

Definition

Electrification of communities, including extending distribution lines to communities, substations, homes, and other buildings. This also includes connection to a grid or setting up dedicated local generation such as micro-hydro, solar, or wind. Among the other services in this category: facilitating household- or community-level energy conservation, efficiency, and services, with activities such as installation of energy-efficient appliances and insulation.

Recent trends suggest that it is now common practice among hydropower developers to help electrify local communities when the area lacks a reliable power supply. Typically, this mechanism is deployed during operation stage although it can be initiated earlier, during the construction stage or even at the preconstruction stage.

The upsides, downsides, and implementation recommendations are similar to those associated with PS1, the provision of essential/basic services. Some additional considerations are provided below.

Value/Upside

- Represents an important community benefit: A lack of access to a reliable, affordable energy source limits opportunities, ranging from job creation and business development to improved health and better education.

- Can contribute significantly to gender equality and women's empowerment. By reducing the time spent on household tasks—and with outdoor electric lighting enhancing safety and security—women can focus on income-generating activities. In addition, electrification can mean the difference between a girl staying home to help her mother and being able to attend school.

Risks/Downside

- Communities might not understand the logistics of how to pay their electricity bills. Or they might not be able to pay their bills at all, creating an additional financial burden for newly served communities and people.

- It also could require an additional investment to pay for distribution and collection companies—an expense that the company might need to subsidize. The alternative—an increase in the electricity tariff—could add to the burden for remote and already vulnerable / poor communities.

- Implementation can require complex governance and contractual arrangements.

PS3 Implementation recommendations

» Engage with governments, local utilities, and other local partners to plan and implement electrification efforts.

» Consider the affordability of energy services, especially for vulnerable and under-served groups. Assess possible income differences between households and likely barriers to uptake of electricity, along with other affordability constraints. Supplementing electrification efforts with preferential electricity rates, as needed, could be an option.

» When planning electrification efforts, ensure inclusive engagement with representatives of various community demographics. Integrating women's perspectives can be extremely helpful in planning for implementation: Women are typically responsible for managing household tasks and feeding the family, meaning that they will know what is needed at the household level. Given security and safety concerns, women also might provide a different perspective on critical locations for community electrification, such as in dark pockets of the village.

PS3 Implementation recommendations continued	» Consider establishing a baseline with sex-disaggregated data to measure household connections for male and female-headed households.
	» Set targets for male- and female-headed household connections, based on percentage representative of the community near the hydropower site.
	» Consider establishing a local cooperative or other entity to purchase bulk electricity, manage power distribution, and collect tariffs. This entity can help manage the process and reduce the risk of theft and non-payment.
	» If it is not practical to connect communities to the central grid, consider providing small generation capacity, through micro- or mini-hydro, solar, or wind, operated through a local cooperative. Another option is household-level solar installations. Both alternatives also might include battery storage to ensure a steady and reliable power source.
	» Raise public awareness through outreach and communications campaigns, enfranchising leaders from different groups, including women and the vulnerable, to amplify the messaging.

How it works

In **Nepal**, Himal Power Limited (HPL), developer of the Khimti Hydropower Plant, worked on a multiphase rural electrification program that started in 1996 and concluded in 2012 with new electricity connections for 9,000 households. The developer began by installing a mini-hydro plant initially intended for use during Khimti's construction. Power was extended to the surrounding communities as part of HPL's CSR program. The second phase of the rural electrification program involved refurbishment of the mini-hydro plant and extension of power to an additional 7,500 households. At the completion of the refurbishment project in 2006, however, electrification had reached just 4,300 families. But the mini-hydro plant was at its capacity. It could not cover all the identified households. Added to this, the unconnected communities wanted electrification. And a rural electric cooperative that had been established did not have the management expertise to take responsibility for the overall rural electrification effort. To resolve the situation, HPL spearheaded the creation of a public-private initiative that would complete the rural electrification project. Partners in the initiative, known as the Khimti Neighborhood Development Project, included the government of Nepal, the United Nations Development Programme, and the Alternative Energy Promotion Centre (AEPC). AEPC led project implementation. HPL provided technical guidance and financial and in-kind contributions. The rural electric cooperative focused on institutionalizing rural electrification at the local level. Among the project activities: construction of a new, 400 kW mini-hydro plant and extension of electricity to the remaining 3,100 households in the area. It also included capacity building for the rural electric cooperative, community mobilization, and community development in areas such infrastructure, micro-enterprise, and gender.[56]

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[56] UNDP. Nepal KiND project document. July 5, 2007.

LOCAL SKILLS AND LIVELIHOODS (LS)

LS1 Local employment and procurement

» Employment-linked training for local residents
» Preferential local employment
» Preferential local procurement of goods and services

LS2 Alternative skills and livelihoods

» Agriculture and livestock programs
» Tourism and fisheries assets for local socio-economic benefit
» Micro-credit for SME development
» Skills building and higher education opportunities, such as through college scholarships

LS3 Local institutional capacity building

» Capacity building of community-based organizations or public institutions

LS1 LOCAL EMPLOYMENT AND PROCUREMENT

Definition	Providing project-related jobs—directly or through subcontractors—for local residents, along with skills development and training. This category also includes project-related procurement of goods and services—such as food, accommodations, transport, logistics, fuel—from local sources throughout the project lifecycle. Typically, such efforts get underway during construction and operation stages but can involve the preconstruction stage to enhance effectiveness, such as providing pre-project training.
Value/Upside	• Given more direct link with project activities, offers the potential for closer alignment between developer needs (labor force) and community interests (jobs). • Addresses a common and key community expectation. In locations with high unemployment and limited livelihood options, job creation offers critical empowerment and economic benefit. • Can help mitigate against certain project risks, such as influx of labor, and associated public health and security risks, including risks of gender-based violence. • Enhances local skill sets and increases employment options: As local community members gain work experience and build their skills, their ability to pursue future jobs increases.
Risks/Downside	• Construction employment is generally short term, although operations jobs are of longer duration. Loss of jobs following a construction boom could increase local dissatisfaction with hydropower developers and operators. • Procurement and employment could involve elite capture, possibly excluding vulnerable and underserved groups. • Women and young people may have additional challenges in accessing jobs, including social and cultural barriers. If hired, they could face an increased risk of workplace harassment, abuse, or violence. • Community members may lack skill sets needed. In particular, they may not qualify for operations jobs. If hired, they might require additional supervision, training, and skills building. • Local businesses might not have the capacity to undertake the work. They might not meet quality standards or provide goods and services as efficiently or effectively as others could. • Negotiations on procurement contracts could take time and come with controversy. • Local businesses could come in too high on contract bids and may require subsidies.

**LS1
Implementation
recommendations**

General implementation recommendations

» Prioritize hiring and procurement for communities that are most impacted to help ensure fair access to opportunities.

» To enhance effectiveness, start training for local hiring and preparation for procurement processes in the preconstruction stage.

» Identify needed project skills and evaluate the capabilities of the local workforce. Conduct a local labor assessment or skills audit to highlight skills in need of improvement. Make a point to identify the specific training needs of women, youth, and other underserved or vulnerable groups so they can access employment opportunities.

» Explore opportunities to link pre-project training with on-the-job training.

» Determine skills/services that can be bid out to local contractors. Smaller contract sizes can help ensure that local businesses can compete. For example, separating out the purchase of coveralls from a larger bundled contract could offer opportunities for local tailors and seamstresses.

» Consider support for local suppliers. This can include general business guidance, the mechanics of the bid process, and assistance with accessing capital by connecting local suppliers with financial institutions. Also consider providing specialized assistance for youth and women-owned enterprises, since they may have more limited skill sets than other local suppliers.

» Set binding agreements on local hiring and procurement with local contractors.

» Set targets for local procurement and employment. Integrate these targets and the strategy into community agreement. Monitor direct hiring and procurement performance, along with project contractor performance, based on agreed-upon targets.

» Define who is considered a local hire or a local contractor. Since it can be challenging to ensure that local communities benefit from procurement and employment efforts—versus people coming from the broader area and from other neighboring territories—a clear definition is a critical step.

» Raise public awareness about how the project defines "local" and the positive impact of local hiring and procurement policies. This will help avoid resentment and backlash.

Recommendations for inclusive and gender-sensitive local hiring and procurement

» As concerns about discrimination, harassment, and gender-based violence often prevent women from pursuing careers in the hydropower sector, consider establishing a formal policy promoting a positive and inclusive vision for local employment and procurement that emphasizes gender equality. Reference the policy frequently, share progress, and monitor for results.

» Provide training for all staff, including contractors, on the importance of diverse, inclusive, and equitable workplaces. This is of particular importance in male-dominated cultures.

» Make it clear through strong messaging and formal policies that the project has no tolerance for sexual harassment or gender-based violence. Encourage supervisors to remain on the alert for any incidents.

» Ensure separate, safe, and culturally sensitive quarters for women, designed with women's input. This represents an opportunity to demonstrate a true commitment to creating a safe and inclusive work environment for men and women.

| *LS1 Implementation recommendations continued* | » Take into consideration cultural differences between local hires or businesses and managers and developer staff from other places. Pay particular attention to gender-based norms and biases. |
| | » Design an effective communications strategy to get the word out on employment and procurement opportunities. Use multiple media platforms, local languages, and inclusive job ad wording to maximize accessibility and ensure the broadest reach possible. Signal interest in diverse hires and bid tenders by stating on job ads that the project welcomes applications from diverse local candidates and companies. |

How it works

In **Canada**, the CA$1.3 billion Wuskwatim project provided nearly CA$150 million in procurement contracts to local Indigenous communities—primarily with the Nisichawayasihk Cree Nation (NCN), an equity partner in the project. Embedded in the effort was a preferential procurement strategy. This strategy enabled local businesses to undertake contracts that either matched their existing capacity or presented an opportunity for long-term capacity building. For example, in many instances, NCN companies formed joint ventures with firms with contract-specific expertise that complemented their own internal expertise and experience. By doing so, NCN was able to win contracts for the construction of a 48-kilometer access road, catering services, site preparation, site security, cultural awareness training and counselling, sewer and water provision for the main camp, and transmission line clearing. In addition, a wholly-owned NCN company manages an Indigenous Traditional Knowledge monitoring program associated with both the construction and operations phases. (For more, see case study volume in this Report Series.)[57]

In **Liberia**, the Mount Coffee rehabilitation project staff took a proactive approach to local hiring efforts. They personally visited local villages, soliciting names of suitable workers. These lists were provided to contractors, who identified workers based on the information provided. The project management team oversaw the entire effort, monitoring contractors to ensure that they were actively recruiting from the lists. The result: Over the project period, more than 1,000 local residents were employed, including many women, whose small enterprises provided food for workers.

In **Colombia**, ISAGEN created a program to prioritize local and regional construction employment. The program, which was embedded into the environmental and social management plan, obligated project contractors to offer opportunities to local suppliers where possible. If they were unable to source goods locally, they had to indicate that this was the case, and submit alternatives for the company's approval. To manage applications for unskilled positions with the contractors, ISAGEN set up an employment committee, composed of representatives from the project's area of influence. This committee also communicated regularly with the employers. In tandem, the company put in place a supplier capacity development program so that more local suppliers could win project contracts.[58]

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[57] For more information on NCN involvement see: www.ncncree.com/business-and-economy/wuskwatim-project/

[58] World Bank. "Better Hydro."

LS2 ALTERNATIVE SKILLS AND LIVELIHOODS

Definition	Support for alternative skills development and income generation, such as training, microloans to small businesses, and agricultural support. Livelihood restoration activities that are part of a resettlement action plan are not included in this category. Typically, efforts to build alternative skills and livelihoods get under way during construction and operation stages.

Value/Upside

- Contributes to long-term livelihood enhancement and community self-esteem through skills acquisition
- Reduces dependency on direct project employment
- Can capitalize on existing local assets, skills, and interests
- Improves skills and builds local businesses, further enhancing employment potential of local residents

Risks/Downside

- Programs can take a long time and face many challenges. Among the issues: creating dependencies, securing appropriate support to ensure sustained use of newly acquired practices and skills, continued community engagement, and working effectively with other local partners.
- Setting up the programs could require complex and lengthy negotiations.
- Designing, implementing, and monitoring programs requires extensive and consistent input, adding to cost and possibly creating an administrative burden.

LS2 Implementation recommendations

» Partner with communities and other stakeholders to identify specific training and support needed to build alternative livelihoods.

» Ensure that the beneficiary stakeholder group has a clear interest in and commitment to participation in the project.

» Consider conducting an assessment of existing economic sectors for their growth potential, looking at local, regional, national, and international possibilities.

» Determine longer-term viability of new livelihoods. This could include a review of the entire value chain to pinpoint the most promising alternative livelihood opportunities. Such a review might involve stakeholder and relationship mapping, along with an analysis of market potential, distribution channels, barriers to market, and customer access. It also should highlight enabling policies and regulations, and alignment with other government plans and programs.

» Assess constraints to women's participation in programs, such as lack of access to child care or transportation, or distant training locations.

» Ensure sufficient budget allotment for training and capacity building.

» Plan for multiple adjustments along the way. Consider a sequential approach that allows phased support, ensuring that monitoring of progress and learning are done systematically.

How it works

In **Canada**, the developer of the Wuskwatim project helped set up a training center. At the center, local community members learned skilled trades such as carpentry, electrical wiring and plumbing. With these newly acquired skills, community members found employment opportunities before, during, and after project construction. They are now contributing to longer-term community economic development.

In **Brazil**, Itaipu Binacional has long supported alternative livelihoods through a sustainable rural development program that extends to all municipalities in its Western Paraná sphere of influence. Focus is on reduced use of water contaminants in farming and conversion to organic production techniques. Among the activities: initiating agricultural research, encouraging and strengthening family farmers' associations, educating families on consuming healthy food, and integrating farmers into the organic products value chain. Other program components involve raising public awareness about the benefits of organic production and creating commercial linkages between rural producers and urban customers. Currently, the program has an active presence in 36 municipalities. In 2018, alone the program provided more than 3500 consultations and conducted 169 training events that reached 2,666 farmers. In addition, 135 family agribusinesses and 7 farm cooperatives benefited from advice that helped commercialize and add value to their products.[59]

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[59] Itaipu Binacional. 2019. "Case Study: Itaipu and SDG 8."

LS3 LOCAL INSTITUTIONAL CAPACITY BUILDING

Definition

Efforts to build the skills and capabilities of community-based organizations or public institutions, such as village committees, women's associations, elderly and youth groups, and government and nongovernmental agencies. This mechanism is typically deployed when the lack of capacity in such organizations poses a major obstacle to community development, generally during the construction and operations stages. Examples include: strengthening of productive community units such as local cooperatives, governance enhancement, participation in working groups/committees to share knowledge and expertise, and supporting local/regional planning activities.

Value/Upside

- Can improve long-term living standards and bring about deep systemic change, without superseding the state
- Offers credible exit strategy for developers once goals of capacity-building efforts have been achieved
- Provides a way to work collaboratively with local stakeholders
- Increases likelihood that local partners, including communities, will be able to drive well designed and more sustainable local projects
- Helps ensure durability of community agreements over time, despite political turnover through elections

Risks/Downside

- Measures could benefit wealthier and more educated community members, increasing the risk of elite capture.
- Achieving early positive impact or quick wins can be difficult. Although capacity-building efforts offer great potential to bring about long-term change, achieving results can take time.
- Communities might not see the connection between the developer's efforts and improvements in institutional capacity or living standards. So, they might not acknowledge these contributions.
- Some institutions might not be open to outside assistance, creating challenges in gaining buy-in.

LS3 Implementation recommendations

» To enhance effectiveness, consider incorporating efforts into the preconstruction stage.
» Tailor efforts to needs: For example, during preconstruction, efforts might focus on building skills to enable more effective participation in negotiating community agreements.
» Partner with government agencies to assess needs and ensure alignment with the community's development plans.
» Understand that institutional capacity building is a multi-year, multi-pronged effort, possibly requiring classroom training followed by hands-on learning and coaching.
» Partner with governments, universities, nongovernment organizations, and aid agencies to deliver programs.
» Attend to the political landscape, taking care to demonstrate impartiality to reduce the risk that the developer is perceived as favoring a particular party in power.

How it works

In **Colombia**, ISAGEN operates development programs for communities where it operates. The programs involve formal education for members of community action boards—the region's local governing bodies. Modules feature lessons in planning, decision making, project implementation, and accounting. Funding is provided so that participants gain practical experience while receiving coaching. In interviews, community members expressed enthusiasm for these programs. (For an in-depth look at ISAGEN's community development programs, see the case study volume in this Report Series.)

🌿 ENVIRONMENTAL STEWARDSHIP (ES)

ES1 Environmental enhancements with community benefits

» Payment for ecosystem services: if not a mitigation requirement

» Improvements to local environment and wildlife habitats

» Environmental education and awareness

ES2 Low-carbon community development and climate resilience

» Measures to improve community climate resilience

» Environmentally friendly products and services

ES1 ENVIRONMENTAL ENHANCEMENTS WITH COMMUNITY BENEFITS, INCLUDING PAYMENTS FOR ENVIRONMENTAL OR ECOSYSTEM SERVICES[60]

Definition

Measures to promote environmental conservation and management (beyond mitigation) that also bring community benefit—including measures that reduce risk and create value for the developer's facilities and operations. Examples of efforts under this component include: supporting wildlife habitats and improving the local or project site environment, and providing environmental education, conservation programs, and sponsorships.

Another important component is known as payments for environmental or ecosystem services (PES), in which local communities or individuals receive payment in exchange for conducting the service activities. These measures can be implemented over and above mitigation, with a goal of conserving, protecting, or enhancing the environment.

In the hydropower context, environmental services are most frequently associated with watershed protection, including upstream forest management practices—such as payments to prevent the conversion of forests into agricultural land. Other services include adjusting community water use—by modifying irrigation and farming practices, for instance—to protect generation hydrology. Payments can take the form of direct awards to recipients. They also can cover the costs associated with the services. Benefits to communities and individuals flow from the direct payments and any associated employment opportunities, or from the resulting improvements in farming, fishing, water quality, and the like. Typically, developers deploy this mechanism during construction and operations, but it can be used earlier as well.

Environmental activities that are undertaken as impact mitigation by the project are not considered benefit sharing even though they may yield benefits for the community.

Value/Upside

- Helps address expectations of stakeholder groups that are advocating for better environmental protection and biodiversity conservation
- Serves as valuable transfer mechanism to generate funding for conservation finance and sustainable development
- Often creates shared value as multiple benefits can be generated both for the developer and local communities:
  - Potential developer benefits: watershed protection, potential reduction in extreme flood risk; potential for less drought and more dependable energy; reduced spill during floods, resulting in more average energy and increased ability to shift energy to more valuable times; reduced sedimentation in the forebays for more up time and lower maintenance costs
  - Potential community benefits: improved farming, fishing, gardening, and water quality; reduced community land erosion; potential for cash payments; jobs

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[60] The content provided in this section draws extensively on: International Union for Conservation of Nature and Natural Resources. 2013. "Payment for Ecosystem Services in Nepal." Kathmandu: IUCN Nepal.

Risks/Downside	• Improvements might not be permanent. For example, after several years of forest regeneration, community leadership could change. The new leaders could decide to renege on the agreement and resume harvesting.
	• If changes in community practices are required to protect the environment, mainstreaming such changes could take a long time–in fact, they could compete with customary practices.
	• Payment for services might not be sufficient to keep communities interested in participating.
	• Some communities or individuals could ignore or actively work against or the goals. For example, a farmer could be paid to refrain from cutting down trees in forest A—where the tree felling is desired—and instead cut down trees in forest B, where it is not desired.
	• Customary ownership could pose issues. Landowners might not have documentation, making it difficult to arrange a fair system to pay landholding farmers for altering crop choices or halting planting on slopes, or rezoning grazing areas. Depending on land rights and uses, this could create disproportionately negative impacts for women.
	• Payments to individuals could exacerbate community divisions and create resentments. On the other hand, payments to the community could reduce incentives for individuals to implement the environmental measures.
ES1 Implementation recommendations	» Design education and awareness programs to suit the needs and capacity of the community.
	» Explore opportunities to link environmental conservation and protection efforts with local livelihoods. See implementation recommendations for Alternative Skills and Livelihoods for more guidance.
	» Arrange for monitoring and reporting to ensure sustainability of environmental enhancements and to distinguish efforts from required mitigation or compensation.
	» For new projects, benchmark results against data provided in environmental impact assessment and management plans.
	» Invest in finding the right partnerships or creating the appropriate organizational structure to implement environmental enhancements. Monitor performance to ensure that qualified individuals or institutions take on required roles.
	» Communicate frequently and report publicly on how funding is managed to instill confidence in the program.
	» To ensure local uptake and sustainability of PES program:
	• Formalize arrangements through a contract that clearly defines roles and responsibilities—including community institutions responsible for protection, monitoring, and controlling land use—and ecosystem services to be provided.
	• Provide interim assistance for farmers who are altering their crop mix: It could take time before the new crops produce yields.[61]
	• If possible, avoid paying individuals or institutions for work they might do on a voluntary basis, unless this causes unfair treatment or the perception of unfair treatment.
	• Consider a rollout that starts with a pilot project, which can validate effectiveness and help secure community buy-in.

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[61] For example, in Thailand, farmers living near the Sirikit project were paid to switch from growing corn on hillsides to growing rubber trees as part of an environmental services program. This included five years of alternate income as they waited for the newly planted rubber trees to reach maturity. This is another example of bridging payments to cover gaps in early years of project or programs.

ES1 Implementation recommendations continued	• Demonstrate commitment over the long term and encourage communities to do the same. • Promote the benefits of wise land use to gain community support (beyond the incentive of cash payments if they are being made). • Understand how proposed cash payments compete with other livelihood and household activities. • Where possible, include communities in land use planning and zoning.

How it works

In **Brazil**, Itaipu Binacional invests in a range of environmental improvements throughout the watershed, working with local farmers and ranchers to reduce impacts on the reservoir caused by sediments, nutrients, and use of chemical pesticides. In promoting environmental diversity, Itaipu takes a strong eco-pedagogical approach. For example, Itaipu is supporting the cultivation and expansion of medicinal plant gardens on the Brazilian and Paraguayan sides of project's area of influence. These efforts help preserve traditional knowledge of medicinal plants, while integrating farmers into the organic products value chain. Learning about the plants used by local communities, collecting and botanically identifying the species, educating public, and working a wide variety of partners are important aspects of this effort.[62]

Itaipu also promotes ecotourism as a way to advance its environmental and social development goals. This highly successful initiative, which drew more than 650,000 visitors in 2019, was triggered by a company-commissioned 2003 study that identified strong local economic and development opportunities through expanding environmentally-sensitive tourism in the region. On the Brazilian side, a not-for-profit foundation was created to oversee tourism-related services, which include a visitors' center, tours, a biological reserve, zoo, and eco-museum. The foundation recovers the costs of investments and operations through visitor entrance fees and commissions from on-site tourism business operators. The complex generated more than $51 million in the years 2007–2016, with a significant portion of these revenues used to finance local development projects. Of note, tourist attractions on the Paraguayan side operate in a slightly different manner, tailored to the Paraguayan business environment.[63]

In **Costa Rica**, the 6MW La Esperanza hydropower project initiated a PES program in which the watershed landowner—the non-profit Monteverde Conservation League (MCL)—receives payment in exchange for services that preserve forest land cover. The arrangement also yields benefits for the project, including stable stream flow during the dry season, reduced peak flows when the project cannot use the additional water because of its small storage capacity, and lower overall sediment. The agreement extends out 99 years—the length of the overall agreement. After the first five years, in which the payment schedule was fixed, a variable payment schedule took effect, with amounts linked to power production and inflation.

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62 Itaipu Binacional. Watershed Management landing page.

63 World Bank. "Better Hydro;" United Nations. Itaipu's 17 Case Studies Responding to 17 Sustainable Development Goals. Landing page. Sustainable Water and Energy Solutions Network.

*How it works
continued*

The direct contract with the landowner differs from the typical PES model used by hydropower projects in Costa Rica. These projects use FONAFIFO, a government-funded institution, as an intermediary. FONAFIFO enters into five-year contracts with multiple private landholders for bundled ecosystem services, including carbon sequestration, biodiversity protection, water regulation, and landscape beautification. The landowners perform a variety of forest protection, reforestation, sustainable forest management, and agroforestry tasks, receiving payment by way of direct cash transfers from the intermediary.[64]

In **Zambia**, the Renewable Energy Holdings Group is in the planning stage for five projects with a total capacity of 70 MW. According to developer representatives, plans include a catchment management program that will support more efficient household and agricultural water usage and sustainable land use management. The developer will see benefit as well, through protection of the project hydrology.

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[64] Rojas, Manrique and Bruce Aylward. 2003. "What are we learning from experiences with markets for environmental services in Costa Rica?" International Institute for Environment and Development; Porras, Ina and Adriana Chacon-Cascante. 2018; Costa Rica's Payments for Ecosystem Services programme Case study Module 2 in "Ecosystems, poverty alleviation and conditional transfers: Guidance for practitioners." London: International Institute for Environment and Development; FONAFIFO. Payment of Environmental Services landing page.

ES2 LOW-CARBON COMMUNITY DEVELOPMENT AND CLIMATE RESILIENCE

Definition

Measures beyond required impact mitigation that are specifically designed to promote low-emission and/or climate-resilient community development. These measures can target improvements in:

- Community infrastructure, such as adoption of resilient housing techniques and building materials
- Land-use, such as introduction of climate-resilient crop varieties and pasture land management
- Water and waste management, such as water conservation, water reuse, composting and recycling
- Energy access and utilization, such as solar lanterns, solar water heaters
- Cooking techniques, such as use of eco-stoves

Other examples include supporting the development of local community adaptation plans and promoting a more integrated, multi-stakeholder approach to climate resilience planning. This can include innovative partnerships with humanitarian and local development organizations. Such partnerships can mobilize support for emergency efforts and longer-term rehabilitation measures in the event of climate disturbances, with a particular focus on the most vulnerable.

While other benefit-sharing categories, such as provision of basic services, contribute to low-carbon development and community climate resiliency, the focus here is on measures that purposefully target communities' climate-related vulnerabilities. This is important because communities near hydro projects can be highly susceptible to the negative impacts associated with extreme weather events and climate change, given their reliance on river systems for food and livelihoods.

Of note, this topic—benefit-sharing measures that address communities' climate-related challenges—is quite new. In fact, few good practice examples exist on how hydro operators are supporting communities in their efforts to anticipate, prepare for, and respond to climate risks and disturbances through benefit sharing.

But just because there are few examples as yet does not mean that the issue should be overlooked. In fact, there are multiple links between hydropower projects and community climate resilience.

On the one hand, hydropower technology can serve as an adaptive protection. For example, regulated basins can support community resilience to the water resource fluctuations caused by climate change. Ensuring that the hydropower assets are themselves more resilient to climate-related disruptions also helps mitigate community risks. To safeguard their assets in the face of climate change, operators have a variety of engineering and non-engineering measures at their disposal. These include building stronger dams for heavier floods and extreme events, modifying spillway capacities, incorporating improved hydrological forecasting techniques, and applying adaptive management operating rules.[65]

On the other hand, these same hydro facilities could heighten the climate vulnerabilities local communities inherently face. For example, communities can face more competition for water during droughts or greater potential for blackouts or brownouts.

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[65] International Hydropower Association. "Hydropower Sector Climate Resilience Guide." May 15, 2019.

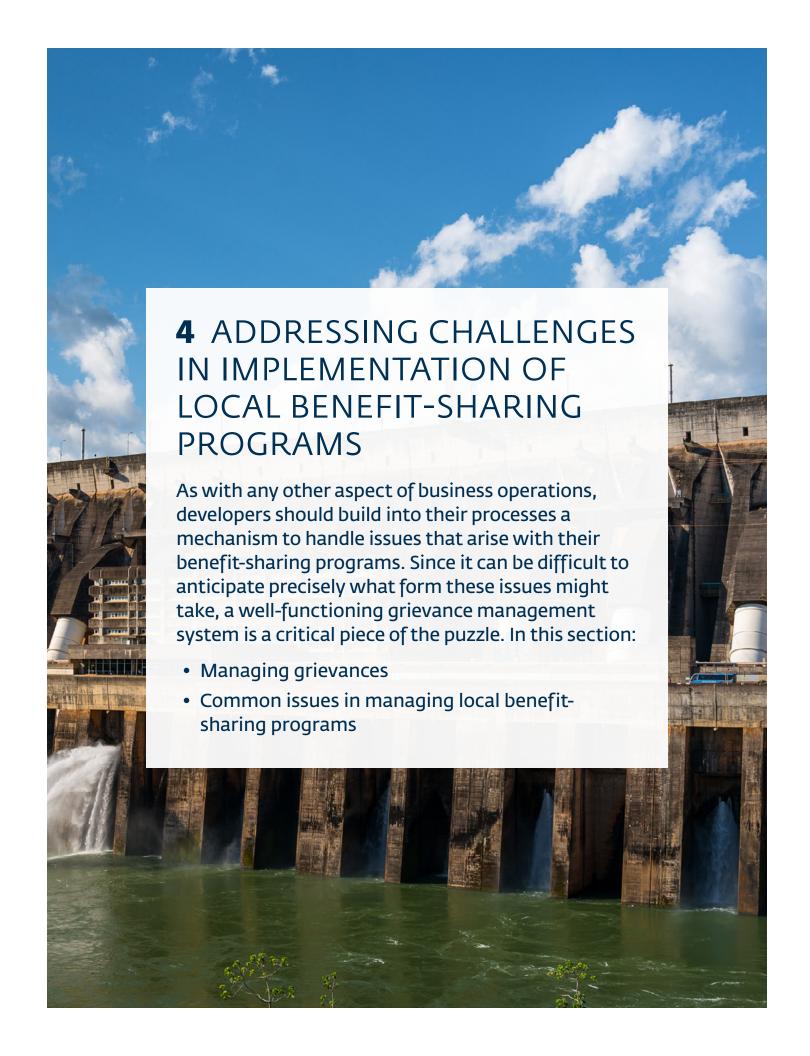|	
Definition continued	For operators, demonstrating a strong commitment to identifying solutions that help communities adapt could be critical to retaining social license. The reason: Exposure to climate risks and subsequent competition for diminishing resources such as water can trigger local conflict and hostility.
	Given the hydro sector's limited experience, the following sections on the upsides, downsides, and recommendations associated with implementing climate resilience benefit-sharing measures draw on examples from other natural resource sectors in addition to hydro project examples. Appendix D showcases good practice examples from the mining sector.
Value/Upside	• Yields long-term value to community given multiple links between building community climate resilience and poverty reduction
	• Reduces risk that the project is blamed for climate- related impacts and/or reduces risks of local conflict and hostility due to climate change
	• Helps shrink community's carbon footprint
	• If linked with livelihood activities, such as distribution, installation, and maintenance of eco-stoves, can create opportunities for income generation
Risks/Downside	• Communities might prefer programs with more immediate, shorter-term benefits.
	• Community could misinterpret project role, placing responsibility for community land-use and resource planning on the company instead of the government.
ES2 Implementation recommendations	» Consider conducting a vulnerability assessment to understand local community capacity for anticipating and responding to climate change.
	» Ensure that programs are consistent with community needs, circumstances, and preferences. Use participatory methodologies and tools to optimize this process, and help drive community awareness and ownership.[66]
	» Some adaptation programs may come with a cost—such as more resilient building materials—so consider the affordability of services/inputs. To ensure that local stakeholders understand the long-term value of such efforts, consider incorporating an awareness-raising component in the program.
	» Find suitable local partners to implement the activities.
How it works	In **Colombia**, ISAGEN includes environmental enhancements and community development as an important component in the benefit sharing associated with its Miel project. Many of these enhancements are linked to the social benefits provided by the developer. This includes an eco-stoves program, which has encouraged villagers to move away from cooking over unhealthy, pollution-causing open fires. ISAGEN purchases the easy-to-assemble, environmentally friendly cook stoves and distributes them among local villagers. In addition to improving families' health and environment, the efficient stoves have eased the burden of collecting firewood—which fell mostly on women and girls—and helped reduce deforestation and carbon emissions. In the eight-year period 2010–2018, ISAGEN distributed more than 1,000 stoves to families living within the project area. Other environmental enhancements include funding for basin conservation and protection, reforestation, and water conservation, along with community initiatives such as tourism training, environmental education, and composting.

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[66] For more on participatory tools, see: CARE's Climate Vulnerability and Capacity Analysis Handbook; and the Community-Based Risk Screening Tool, developed by the International Institute for Sustainable Development and it partners.

4 ADDRESSING CHALLENGES IN IMPLEMENTATION OF LOCAL BENEFIT-SHARING PROGRAMS

As with any other aspect of business operations, developers should build into their processes a mechanism to handle issues that arise with their benefit-sharing programs. Since it can be difficult to anticipate precisely what form these issues might take, a well-functioning grievance management system is a critical piece of the puzzle. In this section:

- Managing grievances
- Common issues in managing local benefit-sharing programs

Addressing Challenges in Implementation of Local Benefit-Sharing Programs

Managing grievances

Most hydropower companies already have in place some type of grievance management process to handle complaints from the local community and other stakeholders. Rather than starting all over and setting up a separate process to deal with benefit-sharing issues, it makes more sense to integrate benefit-sharing grievance management into the existing framework.[67]

Some companies have reported that the most effective approach is to charge front-line staff—those who are implementing benefit-sharing programs—with the authority to resolve grievances, within the appropriate scope. Because they have established relationships with the community, they represent the most logical point of contact in a grievance process. Developer representatives interviewed for this publication also noted the importance of creating a central database to record all grievances. In addition, providing access to a separate, confidential communications channel enables reporting of concerns in situations where there is a lack of trust of front-line staff.

Companies should commit to responding rapidly to all grievances—even if it is to disagree with the claim.

An independently audited grievance procedure can be helpful, especially in large complex projects and/or in situations in which there is dispute with the communities.[68]

RESOLVING DISPUTES

What if the grievance redress process doesn't resolve the issue? What happens if there is a more fundamental disagreement over program implementation? There could be deeply rooted causes for the dispute. The process to resolve it should take into account the developer's perspective—who is involved, what happened, when, and where—as well as customary community practices to address problems. Third parties, such as government representatives or professional mediators, could be brought in to manage the case.

SNAP's grievance process

The example of SN Aboitiz Power (SNAP) in the Philippines is useful here. The developer deploys a layered approach to resolving disputes related to benefit-sharing program implementation, depending on the type of issue at the heart of the dispute.

- Operational-level dispute resolution: For situations involving issues associated with the benefit-sharing program and the company's local community commitments, the community relations officer (CRO)—who manages the benefit-sharing program—is tasked with implementing SNAP's grievance mechanism. The CRO ensures the documentation, validation, and investigation of the grievance. This officer also manages the dispute at the operational level and can represent the company in dispute processes undertaken by local councils and in the customary dispute resolution processes

> **BOX 4.1** A well-functioning grievance process enhances project operations
> - Provides a mechanism for community members to raise concerns and resolve problems
> - Improves community relations through open communication and problem resolution
> - Uncovers potential issues and risks before they become unmanageable or harmful to the project
> - Enables adaptive management—adjusting design and implementation to the realities on the ground

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[67] For additional guidance on developing effective grievance management systems, see the following IFC resources: "The Grievance Mechanism Toolkit," "Addressing Grievances from Project-Affected Communities," and "A Guide to Designing and Implementing Grievance Mechanisms for Development Projects."

[68] For additional guidance, see: IFC. 2009. "Addressing Grievances from Project-Affected People."

of Indigenous Peoples. By empowering the CROs to manage and resolve disputes at the operational level, the issues are addressed immediately and full-blown disputes are avoided.

- Corporate-level dispute resolution: Sometimes, issues cannot be resolved without changing company policy, infusing additional resources, or increasing attributable risks or liability. In such situations, the dispute is elevated to SNAP's senior corporate executive responsible for handling resolution. The senior executive and the CRO work together in managing the dispute and in better understanding how the company should respond. This includes engaging in dialogue and going through stakeholders' dispute resolution processes. For disputes involving complex issues, it also involves independent third-party dispute resolution processes. Upon agreeing to the resolution, SNAP makes the corresponding changes in company policy or undertakes the desired corporate actions, which are then reported back to the community and stakeholders.

SNAP executive dialogues with Indigenous communities about their environmental concerns. *Credit: SN Aboitiz Power*

SNAP also undertook a comprehensive dispute resolution process to help resolve some of the legacy issues involving communities that were impacted by the original construction of the Ambuklao and Binga dams.[69]

THPC's grievance process

In Lao PDR, THPC's grievance process is well-established and well-accepted by local communities for use in both mitigation and benefit-sharing issues.[70]

Upstream communities regularly convene monthly meetings where grievances can be raised; downstream communities convene quarterly meetings; any community can request a special meeting to air a grievance. Complaints can range from poor rice production and impassable roads to home burglaries and non-functioning stoves. When a complaint is received, the parties proceed with the following steps:

1. Village informs the company of grievance via email, letter or direct verbal communication with company liaison.

2. Grievance is registered in electronic database.

3. Company liaison can resolve many issues.

4. If the issue can't be resolved, then:
   - THPC identifies responsible party within the company.
   - THPC investigates the grievance.
   - If there is a company obligation to address the issue, company acts immediately.
   - If there is no obligation, the company deliberates further to determine if a response makes sense.

5. In either case, the company maintains open lines of communication with those who filed grievance and shares outcomes.

Keys to success of the process include strong community relationships and open lines of communication, as well as rapid response to every grievance, whether or not action is ultimately taken to address it.

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[69] For more, see this short documentary produced by Harvard University in 2013: "Making Monkey Business: Building Community Dialogue in the Philippines."

[70] The material in this example is based on information gathered in field visits and interviews with developer staff, 2018–2019.

Common issues in managing local benefit-sharing programs

Over the course of the research period, the research team heard from many stakeholders—including developer representatives, benefit-sharing experts, and community leaders/members—about the issues that can arise over benefit sharing. Added to this new information is the direct experience of the author, along with material gleaned from published sources. Table 4.1 provides a compilation of the typical issues that can arise, based on this material, as well as suggested approaches to manage the issues. Note that this is by no means the universe of problems—merely a representation of some commonly encountered issues.

TABLE 4.1 Commonly faced benefit-sharing challenges and ways to manage the challenges

Frequency cited in interviews	Challenges to benefit-sharing design and implementation	Ways to manage or mitigate challenges
HIGHEST **Community dependency**	» Sense of entitlement » Reluctance of community and local governments to maintain and support programs and infrastructure in the long term, after project reduces involvement and disengages » Community reliance on developer to initiate/implement programs » Expectation that developer will operate as replacement for local or regional government » Under-resourced governments, especially at the local level: they may struggle with instituting appropriate governance and systems and addressing growing needs of the local population	» Emphasize developer's role in helping local stakeholders help themselves—to teach and encourage community self-management: use initiatives such as capacity building for accounting and bookkeeping as key aspects of benefit sharing » Support and integrate benefit sharing into local government community development plans » Early in process, communicate the extent and limit of benefits; differentiate clearly between benefit sharing and mitigation measures » Plan company's exit early. Consider including gradual reduction of support and/or handover arrangements, to prepare for discontinuing involvement » Partner with and support government, NGOs, and community-based organizations: clearly specify partners' roles and responsibilities and take into account from the outset the fact that the project may need to maintain support or have an alternative exit if partners cannot assume or follow through on their responsibilities » Seek partners to cofinance community development initiatives and reduce reliance on project benefit sharing, especially in the long term » Focus on enhancing skills and alternative livelihoods rather than income supplements (for example, helping villagers learn how to grow cash crops and develop markets for their goods) » Consider capacity building for communities to initiate and lead community development » Require communities to provide cofinancing or contribution-in-kind as part of community development projects to encourage self-reliance » Consider developing explicit criteria for community programs that a developer will support: such as requiring as a condition for community project funding the ability to sustain outcomes over the long term without continued funding from the developer » Invest in capacity building to help communities develop skills so they can lead their own development, but be patient—expect a slow transition to self-reliance

Frequency cited in interviews	Challenges to benefit-sharing design and implementation	Ways to manage or mitigate challenges
HIGHEST **Funding and high community expectations**	» Difficulty in determining how much funding to provide for benefit sharing » Difficulty in obtaining sufficient funding without risking project viability » Unreasonable community expectations on benefits levels: could be too costly for project viability (a particular problem for small projects with expectation of benefits as high as large projects); often starts at project outset » Unreasonable expectations from outlying communities: provision of a certain level of benefits in impacted communities can cause other communities to expect similar benefits	» Deploy interventions similar to those for community dependency » Communicate project benefit-sharing objectives and limits early, often, and clearly as part of a meaningful engagement process to help manage community expectations so they are reasonable and focused on priorities » Establish eligibility criteria and communicate this information clearly and frequently, particularly in situations where eligibility criteria differ for various categories of affected communities—based on degree of impact, for example » Identify justifiable and practical limits of project benefit sharing and how much support is financially viable for the project to provide: can be challenging since communities often have vast needs » Remember that funding for benefit sharing—especially direct revenue sharing such as voluntary royalties—tends to be more available later in project life as it becomes more profitable
HIGHEST **Elite capture**	» Elite capture in deciding programs and receiving jobs, training or fund » Frequent corruption in fund management, disbursements, procurement, and allocation of benefits	» Ensure transparency and accountability in funding and benefit sharing processes: specify types of projects funded, eligibility criteria, maximum benefit levels, ineligible activities » Understand community dynamics and put in place mechanisms to ensure full community representation in consultations and planning of community priorities » if possible, use existing local community committees and processes that are accepted and transparent for decision making and implementation » Monitor programs/projects: be sure to involve local stakeholders » Share activity results widely: communicate in accessible ways and easily understandable language
HIGHEST **Eligibility**	» Resentment from non-recipients of benefits, those receiving lower-level or different benefits, or those who did not receive funding for their projects » Disputes over land and resource rights: can interfere with determining who was impacted by project and benefit-sharing eligibility » Difficulty in determining who decides eligibility » Difficulty in maintaining reasonable eligibility boundaries for benefit sharing » Disruption of community dynamics and altered relationships: differences between the haves and the have-nots; those experiencing greater impacts and greater benefit and those who do not » Immigration and disputes with existing residents; questions about immigrants' eligibility for benefits » Lack of data to determine eligibility » Issues in ensuring equitable distribution of benefits between different peoples: impacted vs. non-impacted; local vs. district-wide, especially when national/district governments serve as vehicle for distributing benefits	» Use transparent processes for decisions on eligibility, grounded in solid rationale and information » Use community processes and entities trusted by community to help determine eligibility and implement programs » Clearly communicate the decision-making processes on eligibility to local stakeholders » Diversify and customize programs and implementation to address different stakeholder needs, taking into account project phases and geographic boundaries » Consider providing benefits not just to directly impacted people but to those in same and surrounding communities, while retaining ability to differentiate benefits levels by degree of impact: for example, providing benefits to host communities in addition to the benefits for people who were resettled or relocated there » As early as possible—before benefit- sharing programs start attracting immigrants—establish a registry of residents living in the affected area and a cut-off date after which new residents would not qualify for benefits: this will create a rationale for differentiation between beneficiaries later on » Use ongoing monitoring to judge the distribution of benefits among different groups: consider providing specifically targeted benefit-sharing activities for women, youth, vulnerable groups, and ethnic communities

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Frequency cited in interviews	Challenges to benefit-sharing design and implementation	Ways to manage or mitigate challenges
HIGH **Community desire and capacity**	» Lack of community capacity to consult, negotiate, plan, and implement programs and projects and to manage their own community development and affairs » Unwillingness of communities to get involved in what they consider as externally-imposed decision-making or participative structures » Unwillingness of some community members to play active, decision-making roles » High turnover of village community leaders, which can disrupt projects, cause changes in plans and priorities and result in lost knowledge and capacity: particularly problematic if new leaders campaigned on opposition to former leaders' collaboration with developer » Issues with accepting setbacks and learning from mistakes: communities may have a hard time understanding that development programs often involve a degree of trial and error as part of the process	» Rely on existing engagement processes to understand the capacity and skills constraints that may preclude participation, such as literacy, technical expertise, constraints of daily schedules » Provide formal training and hands-on learning experiences along with coaching to build community capacity for planning, project initiation and implementation, decision making » In evaluating community capacity to consult, plan and implement community programs, consider existing incentives and assume that motivations will differ among various community members » Try to identify and strengthen already existing community institutional structures that work well
HIGH **Government capacity**	» Lack of local, district and national government financial and organizational expertise to support and partner on benefit sharing » Expectation that developer will operate as replacement for local or regional government	» Conduct analysis of government capacity and rely on government's organizational expertise to the extent possible: supplement by helping to build government's capacity » As another option, manage the work critical to the success of the program internally and arrange for government to take over at a later stage. If taking this approach, be sure to formalize roles and responsibilities as part of an agreement so all parties are clear on process » Consider opportunities for strengthening local government skills, such as planning, investment decision making, and monitoring » Make public information on payments to government to encourage government transparency on funds use
MEDIUM **Benefit sharing viewed as bribery**	» Tendency for communities and others to interpret benefit sharing as favoritism or bribery	» Stipulate clear goals for benefit sharing that are connected to sustainable community development and community needs » Use transparent processes with accountability for use of funds » Involve communities from the start of benefit-sharing discussions
MEDIUM **Integration with community**	» Lack of consistency with community priorities » Issues with integrating community decision making on benefit sharing with existing community processes » Risk that communities may lose interest and confidence in developer and benefit sharing in absence of early tangible benefits » Difficulty reconciling conflicting viewpoints and reaching consensus on development issues and programs » Inability to critique and influence local development plans	» Help communities take control of their own development » Consult with and involve the communities and government early on in establishing benefit- sharing objectives and planning benefit sharing. This will build confidence in long-term programs and assist in implementation » Integrate initiatives into local development plans and agenda » Use a diverse set of programs, timed to different project stages: this will enable early and tangible benefits while still placing primary focus on programs that will bring about long-term, sustainable change » Communicate, consult, and interact with communities on a continuous basis: this will help maintain a strong relationship and build trust in the developer and the benefit-sharing program, in turn facilitating decision making and integration

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Frequency cited in interviews	Challenges to benefit-sharing design and implementation	Ways to manage or mitigate challenges
MEDIUM **Integration with community** *(continued)*	» Diverging views on priorities: communities might not prioritize or value key program goals and objectives such as sustainability and capacity building	» Conduct interim evaluations of community development programs: build evaluations into program design and involve beneficiaries in the evaluation process; such evaluations can be a valuable tool for assessing effectiveness » Use culturally appropriate participatory processes as much as possible, but be prepared that these can result in surprising outcomes that are different from, and even contrary to, anticipated local expectations » In addition to community-driven initiatives, consider including developer-initiated projects and programs, particularly those with a long-term community development focus, with the community offering input on design and implementation
MEDIUM **Staff**	» Issues with finding staff with expertise and experience in community development to lead and implement programs and who also can relate well with communities	» Recruit widely for a few topic experts and recruit locally for staff who can speak the local language and can relate to local residents on a personal level. Avoid hiring people from eligible communities because this could be perceived as showing favoritism » Ensure that community relations team/staff are well integrated into the rest of the project's organizational structure and decision-making processes » Explore opportunities to enhance skills of existing community relations staff
MEDIUM **Underserved and vulnerable**	» Concern that benefits might not go to neediest; instead a tendency to focus on those ready and able to participate » Concern that women, Indigenous Peoples and ethnic communities often do not benefit » Potential for community backlash if programs are viewed as only benefiting the elite » Possibility for exacerbating lack of inclusion due to biases of locally recruited project staff » Risk that program design could increase potential for exclusion of the poorest if programs require beneficiary copayments or contributions to promote ownership and accountability	» Recruit specialists such as gender experts, and social and cultural anthropologists » Conduct in-depth stakeholder analysis to identify vulnerable groups and allow for targeting these groups as part of benefit-sharing program strategy » Design special programs focused on and in consultation with vulnerable people as part of a diverse program portfolio, such as alternative livelihood programs that empower women and ensure that they receive a fair share of benefits » Communicate eligibility criteria for these special programs to all stakeholders » Use culturally sensitive approaches for all beneficiaries: this will ensure integration of such approaches for ethnic communities » Consider initiating special programs for the most needy or vulnerable later in the benefit-sharing timeline. Depending on context, it could be important to start with programs aimed at those most ready and willing to participate; phasing the roll out of various initiatives could help » Make use of special groups and consultations » Provide childcare and other arrangements so women can participate in programs » Provide cultural awareness workshops and training for project and contractor staff

Frequency cited in interviews	Challenges to benefit-sharing design and implementation	Ways to manage or mitigate challenges
MEDIUM **Legacy issues**	» Lack of trust in developer due to legacy issues from earlier stage of project or other projects: this could give rise to concerns that might not seem relevant, such as problems associated with expansion or rehabilitation of an earlier project	» Acknowledge the existence of such legacy issues, or, at minimum, the community's perception that legacy issues exist » Determine the legitimacy of the legacy issue claims and decide whether there is a rationale for taking steps to address the issues. If such legacy impacts exist and are significant, it is highly likely that the project will face on-going community relations difficulties. In some cases, a conflict resolution process mediated by an independent expert will be needed » If community claims are not valid, provide the evidence and rationale for this conclusion. Benefit sharing to address the claims could still be provided to enhance community development and build a more positive relationship » If community claims prove valid, consider including measures to help address legacy impacts. If mitigation and compensation for impacts of a new project are being planned, consider extending the benefits
LOW **Negative campaigns / publicity**	» Potential for negative publicity about the project and the hydro sector in general: NGOs or other stakeholders could use discussions on benefit sharing for existing projects or those under construction as a vehicle to campaign against dams in general rather than focussing on how to maximize the sustainability of the project	» Ensure transparency and availability of corporate/asset-level policies on sustainability/community benefits; if questions arise, external stakeholders can be directed to this information » Try engaging with these stakeholders in a meaningful manner » If engagement fails, focus on countering the negative publicity with concrete results and stories about work with credible local partners the project is working with. Maintain ongoing engagement with communities, governments and other stakeholders with a more positive and collaborative outlook » Remember that such negative campaigns will gain little traction if community support has been won
LOW **Community awareness**	» Lack of general knowledge about benefits provided: this is a greater challenge for financial mechanisms such as royalty payments to national or regional governments	» Encourage government communication about the benefit: this includes crediting the project and developer as the source of the benefits; alternatively (or in addition) the company itself can share this information » Invest in efforts to ensure regular communication of results: use established and trusted local networks and individuals and provide information that is relevant to local communities » Consider conducting an assessment of information needs to ensure relevance

References

Arsenova, Maria and Holle Linnea Wlokas. 2019. "Local Benefit Sharing in Large-Scale Wind and Solar Projects." Washington, D. C.: IFC. https://www.commdev.org/wp-content/uploads/2019/06/IFC-LargeScaleWindSolar_Web.pdf

Boakye, Benjamin, Maggie Cascadden, Jordan Kuschminder, Sam Szoke-Burke, and Eric Werker. 2018. "Implementing the Ahafo Benefit Agreements: Seeking Meaningful Community Participation at Newmont's Ahafo Gold Mine in Ghana." Canadian International Resources and Development Institute (CIRDI) Report. 2018-003 https://cirdi.ca/?research=implementing-the-ahafo-benefit-agreements-seeking-meaningful-community-participation-at-newmonts-ahafo-gold-mine-in-ghana

Business & Human Rights Resource Centre. "Mexico: Cerro d Oro Dam impacts indigenous communities near Santo Domingo River." Webpage. https://www.business-humanrights.org/en/mexico-cerro-de-oro-dam-impacts-indigenous-communities-near-santo-domingo-river

Brown, Murray and Krista Robertson. "Benefit Sharing Agreements in British Columbia: A Guide for First Nations, Businesses, and Governments." http://www.woodwardanddeveloper.com/wp-content/uploads/pdfs/4487_benefit_sharing_final_report_-_updated.pdf

CARE. Climate Vulnerability and Capacity Analysis Handbook. Second Edition. July 2019. https://careclimatechange.org/cvca/

Cameron, Edward. 2019. "Business Adaptation to Climate Change and Global Supply Chains." Global Commission on Adaptation. https://cdn.gca.org/assets/2019-08/BP%20Supply%20chains_ecameron_Final%2031%20July.pdf

Climate Bonds Initiative. Hydropower Sustainability Environmental, Social and Governance Gap Analysis Tool landing page. https://www.climatebonds.net/hydropower?utm_source=e-shot&utm_medium=email&utm_campaign=CBIgreenbondsconsultation_final

Compliance Advisor Ombudsman.2008. "A Guide to Designing and Implementing Grievance Mechanisms for Development Projects." Washington, D.C.: CAO. http://www.cao-ombudsman.org/howwework/advisor/documents/implemgrieveng.pdf

Compliance Advisor Ombudsman. "The Grievance Mechanism Toolkit." Website. https://www.cao-grm.org/purpose-design-and-implementation

Dhillion, Shivcharn. 2020. "Benefit sharing: enablers, framing mitigation, conflict resolution and development goals." Accepted for publication in *International Journal on Hydropower & Dams*, for ASIA2022 symposium, slated for March, 2022, Kuala Lumpur, Malaysia.

Dhillion, Shivcharn. 2019. "Benefit sharing for project risk-conflict reduction and fostering sustainable development: Current understanding and mechanisms." In *Natural Resource Conflicts and Sustainable Development*. London: Earthscan.

Everard, Mark. 2013. "The Hydropolitics of Dams: Engineering or ecosystems?" Zed Books

Eberhard, Anton and Raine Naude. "The South African Renewable Energy Independent Power Producer Procurement Programme: A review and lessons learned." *Journal of Energy in Southern Africa*. November, 2016. Volume 27, Number 4: 1–14. http://www.scielo.org.za/pdf/jesa/v27n4/01.pdf

Faria, Felipe, Alex Davis, Edson Severnini, and Paulina Jaramillo. "The local socio-economic impacts of large hydropower plant development in a developing country." *Energy Economics*. September 2017. Number 67. https://www.researchgate.net/publication/319598943_The_local_socio-economic_impacts_of_large_hydropower_plant_development_in_a_developing_country

First Nations Major Projects Coalition. "Indigenous Ownership of Electricity Infrastructure: A Case Study." May 24, 2020. https://static1.squarespace.com/static/5849b10dbe659445e02e6e55/t/5ecd383a063db750f2c9685f/1590507583689/FNMPC+Indigenous+Electricity+Infrastructure+Paper+May+2020.pdf

FONAFIFO. Payment of Environmental Services landing page. http://www.fonafifo.go.cr/en/servicios/pago-de-servicios-ambientales/;

Forest Peoples Programme. 2017. "A Community Guide to IFC Performance Standard 7 on Indigenous Peoples." https://www.forestpeoples.org/sites/default/files/documents/ifi-ps7-english-web_0.pdf

Gibson, Ginger and Ciaran O'Faircheallaigh. 2010. "IBA Community Toolkit." Walter & Duncan Gordon Foundation. https://namati.org/wp-content/uploads/2015/05/IBA_toolkit_March_2010_low_resolution.pdf

Gulden, Greg and Phurpa Tamang. "FPIC as Project Bonus: The UT-1 Experience." Presentation at focus session on projects affecting indigenous communities. World Hydropower Congress. May, 2019. http://crossculturalconsult.com/wp-content/uploads/2019/06/FPIC-as-Project-Bonus-IHA-Guldin-Tamang-15-May-2019.pptx).

Hydro One. 2019. "For the Possibilities of Tomorrow." Sustainability Report 2019. https://www.hydroone.com/Sustainability/Documents/CSR_2019/HydroOne_CSR_2019.pdf

Hydropower Sustainability Council. 2013. Hvammur Assessment. https://www.hydrosustainability.org/published-assessments/hvammur

Hydropower Sustainability Council. "Hydropower Sustainability Guidelines on Good International Industry Practice." https://www.hydropower.org/publications/hydropower-sustainability-guidelines

Hydropower Sustainability Council. 2012. Jirau Assessment. https://www.hydrosustainability.org/published-assessments/jirau

Hydropower Sustainability Assessment Council. 2012. Jostedal Assessment https://www.hydrosustainability.org/published-assessments/jostedal

Hydropower Sustainability Council. 2019. Teesta-V Assessment. https://www.hydrosustainability.org/published-assessments/teesta-v

International Council on Mining and Metals. 2019. "Adapting to a Changing Climate." https://www.icmm.com/website/publications/pdfs/climate-change/191121_publication_climate_adaptation.pdf

International Council on Mining and Metals. 2015. "Good Practice Guide: Indigenous Peoples and Mining." https://www.icmm.com/website/publications/pdfs/social-and-economic-development/9520.pdf

International Institute for Sustainable Development, International Union for Conservation of Nature, Helvetas Swiss Intercooperation and Stockholm Environment Institute. 2007. Community-Based Risk Screening Tool. https://www.iisd.org/cristaltool/

IFC. "Addressing Grievances from Project-Affected People." Good Practice Note Number 7. September 2009. Washington, D.C.: IFC. https://www.ifc.org/wps/wcm/connect/topics_ext_content/ifc_external_corporate_site/sustainability-at-ifc/publications/publications_gpn_grievances

IFC. 2015. "The Art and Science of Benefit Sharing in the Natural Resource Sector." Discussion paper. Washington, D.C.: IFC. http://commdev.org/pdf/publications/IFC-Art-and-Science-of-Benefits-Sharing-Final.pdf

IFC. 2015. "Establishing Foundations to Deliver Community Investment 2015-A Quick Guide." Washington, D.C.: IFC. https://www.ifc.org/wps/wcm/connect/topics_ext_content/ifc_external_corporate_site/sustainability-at-ifc/publications/publications_handbook_communityinvestment__wci__1319576907570

IFC. Undated. "Grievance Management." https://www.ifc.org/wps/wcm/connect/963ec017-2b1f-4487-b533-14fda473b1a5/PartOne_GrievanceManagement.pdf?MOD=AJPERES&CVID=jqewwBr

IFC. 2012. "IFC Performance Standards on Environmental and Social Sustainability." www.ifc.org/wps/wcm/connect/Topics_Ext_Content/IFC_External_Corporate_Site/Sustainability-At-IFC/Policies-Standards/Performance-Standards

IFC. (undated.) "Lessons Learned: Pangue Hydroelectric." Summary. IFC Environmental & Social Development Department. http://documents.worldbank.org/curated/en/601861468236080935/pdf/365360ENGLISH0Pangue0lessons01PUBLIC1.pdf

IFC. 2018. "Local Shares Summary Report. An In-Depth Examination of the Opportunities and Risks for Local Communities Seeking to Invest in Nepal's Hydropower Projects." Washington, D.C.: IFC. https://www.ifc.org/wps/wcm/connect/bdad79d5-a5b8-4d46-9529-678c15798f0d/Local+Shares+Summary+Report_EN+-+final.pdf?MOD=AJPERES&CVID=mnC8zSw

IFC. "Powered by Women: The Business Case for Gender Diversity and Equality in Nepal's Hydropower Sector." August, 2020. Washington, D.C. IFC. https://www.ifc.org/wps/wcm/connect/db31edf0-7dbf-4547-9b58-7dc9a86db6e3/Report+on+Business+case_Gender_Nepal+2020.pdf?MOD=AJPERES&CVID=niOExmq

IFC. 2007. "Stakeholder Engagement: A Good Practice Handbook for Companies Doing Business in Emerging Markets." Washington, D.C.: IFC. https://www.ifc.org/wps/wcm/connect/topics_ext_content/ifc_external_corporate_site/sustainability-at-ifc/publications/publications_handbook_stakeholderengagement__wci__1319577185063

IFC. 2010. "Strategic Community Investment." Washington, D.C.: IFC. https://www.ifc.org/wps/wcm/connect/95c6b4b5-2097-4f47-9518-7a21b8516c1a/12014complete-web.pdf?MOD=AJPERES&CACHEID=ROOTWORKSPACE-95c6b4b5-2097-4f47-9518-7a21b8516c1a-jkD15-5

IFC. 2018. "Unlocking Opportunities for Women and Business: A Toolkit of Actions and Strategies for Women and Business." Washington, D.C.: IFC. https://www.ifc.org/wps/wcm/connect/topics_ext_content/ifc_external_corporate_site/gender+at+ifc/resources/unlocking-opportunities-for-women-and-business

References

International Hydropower Association. "Better Hydro: protecting biodiversity at Reventazón, Costa Rica." September 29, 2017. https://www.hydropower.org/blog/better-hydro-protecting-biodiversity-at-reventaz%C3%B3n-costa-rica

International Hydropower Association. 2017. "Brazil-Jirau case study." Sediment management. file:///C:/Users/Ann/Downloads/Case%20study_Jirau_Oct17.pdf

International Hydropower Association. 2018. ESG Gap Analysis Tool. https://www.hydropower.org/esg-tool

International Hydropower Association. "Hydropower Sector Climate Resilience Guide." May 15, 2019. https://www.hydropower.org/publications/hydropower-sector-climate-resilience-guide

International Hydropower Association. 2010. Hydropower Sustainability Assessment Protocol. https://www.hydropower.org/topics/featured/hydropower-sustainability-assessment-protocol

International Hydropower Association. 2018. Hydropower Sustainability Guidelines. https://www.hydropower.org/publications/hydropower-sustainability-guidelines

International Union for Conservation of Nature and Natural Resources. 2013. "Payment for Ecosystem Services in Nepal." Kathmandu: IUCN Nepal http://cmsdata.iucn.org/downloads/payment_for_ecosystem_services_in_nepal__prospect__practice_and_process.pdf

Itaipu Binacional. 2019. "Case Study: Itaipu and SDG 8." https://www.un.org/sites/un2.un.org/files/itaipu_case_study_8.pdf

Itaipu Binacional. 2019. "Indicators Guidebook." https://www.itaipu.gov.br/en/social-responsibility/indicators-guidebook

Itaipu Binacional. Watershed Management landing page. http://www.itaipu.gov.br/en/the-environment/watershed-management

Jalsrot Vikas Sanstha (JVS)/GWP Nepal. "State of Conflict on Water Resources and Benefit Sharing in Marsyangdi River Basin." January, 2019. https://jvs-nwp.org.np/wp-content/uploads/2019/02/Marsyangdi-report_2019.pdf

Johnson, Erik and Frederica Cimato. 2018. "Community Benefit Sharing in the Tina River Hydropower Project." Washington, D.C: World Bank. http://pubdocs.worldbank.org/en/178141523120729839/Tina-River-Hydropower-Community-Benefit-Sharing-Paper-Hydropower-Asia-2018

Khagram, Sanjeev. 2004. "Dams and Development: Transnational struggles for water and power." Cornell University Press.

Lazaruk, Susan. 1995. "B.C. Kills Kemano Project." Windspeaker. Volume 12, Issue 20. https://ammsa.com/publications/windspeaker/bc-kills-kemano-project

Lillehammer, Leif, et al. 2011. "Benefit Sharing and Hydropower." A SWECO Report for the World Bank. https://www.academia.edu/7467005/Lillehammer_et_al._2011_._Benefit_Sharing_and_Hydropower_Development

Marcos, Paloma. "Gender and Renewable Energy: Wind, Solar, Geothermal and Hydroelectric Energy." November, 2014. Inter-American Development Bank. https://www.climateinvestmentfunds.org/sites/cif_enc/files/knowledge-documents/idb_englishgetdocument.pdf

McCulley, Patrick. 2001. *Silenced Rivers: the ecology and politics of large dams.* Second edition. Zed Books

Ministry of Corporate Affairs, Government of India. 2018. "Invitation for public comments for high level committee on corporate social responsibility." https://www.mca.gov.in/Ministry/pdf/InvitationOfPublicCommentsHLC_18012019.pdf.

Nash, Jonathan. "Success of Mount Coffee Hydropower Plant Helps Liberia Shine Brighter." Millennium Challenge Corporation blog. July 23, 2018. https://www.mcc.gov/blog/entry/blog-072318-success-of-mount-coffee-hydropower-plant-helps-liberia

Nepal Water and Energy Development Company. Local Benefit Sharing Plan. Prepared for the Upper Trishuli Hydropower Project, Rasawa District, Nepal. February 15, 2018. https://www.adb.org/sites/default/files/project-documents/49086/49086-001-eia-en_4.pdf

Nisichawayasihk Cree Nation. 1996. Northern Flood Implementation Agreement. https://www.ncncree.com/about-ncn/our-history/northern-flood-agreement/

Niskamoon Corporation. Annual Report 2017-2018. http://www.niskamoon.org/wp-content/uploads/2018/08/NiskamoonCorporation17-18AnnualReport.pdf

Orlando, Maria Beatriz; Janik, Vanessa Lopes; Vaidya, Pranav; Angelou, Nicolina; Zumbyte, Ieva; Adams, Norma. 2018. "Getting to Gender Equality in Energy Infrastructure: Lessons from Electricity Generation, Transmission, and Distribution Projects." Energy Sector Management Assistance Program (ESMAP) Technical Report no. 012/18. Washington D.C: World Bank. https://openknowledge.worldbank.org/handle/10986/29259#:~:text=Getting%20to%20Gender%20Equality%20in%20Electricity%20Infrastructure%3A%20Lessons%20from%20Electricity,on%20which%20further%20research%20and

Palmer, Caitriona. "Sustainable Hydropower Creates Opportunities in Nepal." *IFC Creating Markets*. November, 2019. https://www.ifc.org/wps/wcm/connect/news_ext_content/ifc_external_corporate_site/news+and+events/news/cm-stories/nepal-sustainable-hydropower

Pineau, Pierre-Olivier, Lucile Tranchecoste, and Yenny Vega-Cárdenas. "Hydropower Royalties: A Comparative Analysis of Major Producing Countries." *Water Economics and Policy*. April 20, 2017.   https://www.mdpi.com/2073-4441/9/4/287/htm

Podlasly, Mark and Suzanne von der Porten. "The Role of Indigenous People in Major Project Development: Paths for Indigenous Participation in Electricity Infrastructure." First Nations Major Project Coalition. July 10, 2019. https://static1.squarespace.com/static/5849b10dbe659445e02e6e55/t/5d279f23bfceb4000114c6ff/1562877756904/MPC+-+Final+v.11.pdf

Porras, Ina and Adriana Chacon-Cascante. 2018. "Costa Rica's Payments for Ecosystem Services Programme." Case study, module 2 in "Ecosystems, poverty alleviation and conditional transfers: Guidance for practitioners." London: International Institute for Environment and Development. https://pubs.iied.org/pdfs/16639IIED.pdf

Rai, Nirjan; Padmendra Shrestha et al. 2018. "Local Shares: An In-Depth Examination of the Opportunities and Risks for Local Communities Seeking to Invest in Nepal's Hydropower Projects." Washington, D.C.: IFC. http://documents.worldbank.org/curated/en/557631540818936608/pdf/WP-NP-v2-Local-Shares-Main-Report-PUBLIC.pdf

Ramachandran, Sudha. "The Standoff over the Myitsone Dam Project in Myanmar: Advantage China." China Brief Volume 19, Issue 8. April 24, 2019. The Jamestown Foundation. https://jamestown.org/program/the-standoff-over-the-myitsone-dam-project-in-myanmar-advantage-china/

Rojas, Manrique and Bruce Aylward. 2003. "What are we learning from experiences with markets for environmental services in Costa Rica?" International Institute for Environment and Development. https://pubs.iied.org/pdfs/9247IIED.pdf

Shrestha, Padmendra et al. 2016. "Benefit Sharing and Sustainable Hydropower: Lessons from Nepal." Kathmandu: International Centre for Integrated Mountain Development. http://lib.icimod.org/record/32026/files/icimodResearchReport2016_2.pdf

Skinner, Jamie. Niasse, Madiodio, and Haas, Lawrence (eds.) 2009. "Sharing the benefits of large dams in West Africa." *Natural Resource Issues No.19*. London: International Institute for Environment and Development. https://pubs.iied.org/pdfs/12555IIED.pdf

Statkraft. 2019. "Hydropower: Flood control as civil protection." *Explained by Statkraft*. https://explained.statkraft.com/articles/2019/hydropower-flood-control-as-civil-protection/

Tagliarino, Nicholas, Celine Salcedo-La Viña and Sam Szoke-Burke. "Strengthening Indigenous Land Rights: 3 Challenges to Free, Prior and Informed Consent." World Resources Institute. May 9, 2016.

https://www.wri.org/blog/2016/05/strengthening-indigenous-land-rights-3-challenges-free-prior-and-informed-consent

Tina River Hydropower Development Project. Gender Action Plan. January, 2017. https://www.miga.org/sites/default/files/2019-07/Final-Tina-River-GAP-31Jan2017_clean.pdf

Tina River Hydropower Development Project. "Training Empowers Women—Building Skills for Rural Women in the Tina Hyrdo Project catchment." April 11, 2020. https://www.tina-hydro.com/9822/training-empowers-women-building-skills-for-rural-women-in-the-tina-hydro-project-catchment/

United Nations. Itaipu's 17 Case Studies Responding to 17 Sustainable Development Goals. Landing page. Sustainable Water and Energy Solutions Network. https://www.un.org/en/water-energy-network/page/itaipu%E2%80%99s-17-case-studies-responding-17-sustainable-development-goals

United Nations Development Programme. 2007. "Dams and Development: Relevant Practices for Improved Decision Making." UNDP Dams and Development Project. https://wedocs.unep.org/bitstream/handle/20.500.11822/7613/-Dams%20and%20Development-%20Relevant%20Practices%20for%20Improved%20Decision%20Making-2007770.pdf?sequence=3&isAllowed=y

United Nations Development Programme. Nepal KiND. Project document. July 5, 2007. https://info.undp.org/docs/pdc/Documents/NPL/00047492_KiND_Project_ProDoc_-FINAL-_Main_body-Signed_5_July_2007.pdf

United Nations Global Compact. "Indigenous Peoples' Rights and the Role of Free Prior and Informed Consent." Good practice note. February 20, 2014. https://d306pr3pise04h.cloudfront.net/docs/issues_doc%2Fhuman_rights%2FHuman_Rights_Working_Group%2FFPIC_Indigenous_Peoples_GPN.pdf

VRA Resettlement Trust Fund. "…Providing water in 52 communities." Website. History landing page. http://www.vratrustfund.com/history.php

References

Wang, Chaogang. 2012. "A guide for local benefit sharing in hydropower projects." Social development papers no. 128. Washington, D.C.: World Bank. http://documents.worldbank.org/curated/en/171511468331214139/A-guide-for-local-benefit-sharing-in-hydropower-projects

Watkins, Graham; Sven-Uwe Mueller; Maria Cecilia Ramirez Bello; Hendrik Meller; and Andreas Georgoulias. 2017. "Lessons from Four Decades of Infrastructure Project Related Conflicts in Latin America and the Caribbean." Washington, D.C.: Inter-American Development Bank. https://publications.iadb.org/en/lessons-four-decades-infrastructure-project-related-conflicts-latin-america-and-caribbean

World Bank. 2017. "Case study 7: Economic Viability: Hvammur: Iceland." In "Better hydro: Compendium of case studies." http://documents.worldbank.org/curated/en/247261519658051630/pdf/Better-Hydro-Compendium-of-Case-Studies-2017.pdf

World Bank. 2018. Environmental and Social Framework. https://www.worldbank.org/en/projects-operations/environmental-and-social-framework

World Bank. "Proposed Environmental and Social Standard 7: Indigenous Peoples." Fachtsheet. https://consultations.worldbank.org/sites/default/files/data/hub/files/consultation-template/review-and-update-world-bank-safeguard-policies/en/materials/revised_factsheet_ess7_july_9_aki.pdf

World Bank. "Vishnugad Pipalkoti Hydro Electric Project." Feature story. June 30, 2011. https://www.worldbank.org/en/news/feature/2011/06/30/vishnugad-pipalkoti-hydro-electric-project

World Commission on Dams. 2000. "Dams and Development: A New Framework for Decision-Making." https://pubs.iied.org/pdfs/9126IIED.pdf

FOR FURTHER READING ON BENEFIT SHARING

Bhattacharyya, Som. 2007. "Chamera Hydro-Electric Power Project (Chep-1), Khairi: Looking beyond the Horizon of Hydroelectricity and Profit, Giving New Meaning to Life." *Vision: The Journal of Business Perspective Vol. 11*, pp 79–93. https://www.researchgate.net/publication/258199765_Chamera_Hydro-Electric_Power_Project_Chep-1_Khairi_Looking_beyond_the_Horizon_of_Hydroelectricity_and_Profit_Giving_New_Meaning_to_Life

Brooke Wilmsen, Michael Webber and Duan Yuefang. 2011. "Development for Whom? Rural to Urban Resettlement at the Three Gorges Dam, China." *Asian Studies Review*. 35:1, 21-42. https://www.tandfonline.com/doi/abs/10.1080/10357823.2011.552707

Brooke Wilmsen. 2016. "After the Deluge: A longitudinal study of resettlement at the Three Gorges Dam, China." *World Development*. Vol. 84, pp 41–54. https://www.sciencedirect.com/science/article/abs/pii/S0305750X16303539

Business & Human Rights Resource Centre, Sonen Capital, and Transform Finance. "Renewable Energy Impacts on Communities." Investor Briefing. April 26, 2017. https://www.business-humanrights.org/en/renewable-energy-investor-briefing-managing-risks-responsibilities-for-impacts-on-local-communities

Cernea, Michael. "Compensation and benefit sharing: Why resettlement policies and practices must be reformed." *Water Science and Engineering*. March 2008. Vol. 1, No. 1, pp 89–120. https://www.sciencedirect.com/science/article/pii/S1674237015300211

Cernea, Michael. 2007. "Financing for Development: Benefit-Sharing Mechanisms in Population Resettlement." *Economic and Political Weekly*. Vol. 42, No. 12, pp 1033-1046. https://www.jstor.org/stable/4419387?seq=1

Égré, Dominique. "Revised Final Report: Benefit Sharing Issue." United Nations Environmental Programme Dams and Development Project Compendium on Relevant Practices—2nd Stage. February 10, 2007.

Haas, Lawrence and Dang Vu Tung. 2007 "Benefit Sharing Mechanisms for People Adversely Affected by Power Generation Projects in Viet Nam: Final Report Volume 1." Asian Development Bank TA-4689(VIE) https://www.adb.org/sites/default/files/project-document/65430/39379-vie-dpta.pdf

IFC. 2000. "Investing in People: Sustaining Communities through Improved Business Practice: A Community Development Resource Guide for Companies." Washington, D.C.: IFC. https://www.ifc.org/wps/wcm/connect/topics_ext_content/ifc_external_corporate_site/sustainability-at-ifc/publications/publications_handbook_investinginpeople__wci__1319578798743

International Hydropower Association. 2019. "How-to Guide: Hydropower Benefit Sharing." https://www.hydropower.org/publications/hydropower-benefit-sharing-how-to-guide

Lebel, Louis, Phimphakan Lebel, Chanagun Chitmanat and Patcharawalai Sriyasak. "Benefit sharing from hydropower watersheds: Rationales, practices, and potential." Water Resources and Rural Development. October 2014. Vol. 4, pp 12–28. https://www.sciencedirect.com/science/article/abs/pii/S2212608214000266

Mekong River Commission Secretariat. 2014. "National-to-Local Benefit Sharing Options for Hydropower on Mekong Tributaries." Regional Synthesis Paper. http://www.mrcmekong.org/assets/Publications/Reports/Regional-Synthesis-Draft-Paper-FINAL.pdf

Sequeira, Debra and Sunrita Sarkar. "Global Experiences in Benefit Sharing." PowerPoint presentation for IFC Local Shares in Hydropower Workshop. Kathmandu, Nepal. January 23, 2017. https://www.ifc.org/wps/wcm/connect/c02c2976-bab0-4c03-8b96-c93bbf98e677/3++IFC+Global+Examples+of+Benefit+Sharing.pdf?MOD=AJPERES&CVID=lEtpTbJ

Skinner, Jamie, Judith Krauss, and Peter Newborne. "Redistribution of revenues from hydropower dams: Review of benefit-sharing mechanisms and local control." March, 2014. London: International Institute for Environment and Development. https://pubs.iied.org/pdfs/G03770.pdf

Slariya, Mohinder. 2011. "Hydroelectric Power Development: A Study of NHPC Owned Power Projects." https://www.researchgate.net/publication/235981977_Hydroelectric_Power_Development_A_Study_of_NHPC_Owned_Power_Projects

Wang, Quinxiang and Tonghe Tang. 2011. "Sustainable hydropower development: International perspective and challenges for China." 2011 International Conference on Multimedia Technology. Hangzhou. https://ieeexplore.ieee.org/document/6001696

Wojczynski, Ed, et al. 2010. "Mission: Partnerships: A Socially Responsible Approach for New Hydro-Electric Developments." World Energy Congress. https://www.osti.gov/etdeweb/servlets/purl/21403722

Woodward & Company. n.d. "Benefit Sharing Agreements in British Columbia: A Guide for First Nations, Businesses, and Governments." Ecosystem-Based Management Working Group. http://www.woodwardandcompany.com/wp-content/uploads/pdfs/4487_benefit_sharing_final_report_-_updated.pdf

World Bank. 2009. "Enhancing development benefits to local communities from hydropower projects: a literature review." Washington, D.C.: World Bank.

http://documents.worldbank.org/curated/en/406951468326991910/Enhancing-development-benefits-to-local-communities-from-hydropower-projects-a-literature-review

World Bank. 2012. "Mining Community Development Agreements Source Book." http://siteresources.worldbank.org/INTOGMC/Resources/mining_community.pdf

World Bank Inspection Panel. "India Vishnugad Pipalkoti Hydro Electric Project." Investigation Report No. 89109-IN. July 1, 2014. Washington, D.C.: World Bank.

Appendix A

Project Representatives and Other Stakeholders Interviewed, 2018–2019

MIEL, COLOMBIA

- Community leaders and members in La Habana, Moscovita, San Jose, Norcasia, Sasaima, Victoria

- Staff of SOCYA, developer assisting ISAGEN in community programs

- APOYAR Foundation (Swiss NGO) staff: Viviana Ramirez, Viviana Vasquez

- PPMC (Peace) Program-non-profit organization staff: Viviano Franco, Javier Moncayo

- ISAGEN staff: Diego Leon Gonzalez Ochoa, Manager, Energy Production; Claudia Tobon, Director of Environment; David Mauricio Sanchez, Environment Coordinator; Beatriz Asunto, PDC Community Development Program staff; Luisa Fernanda Ramirez Alzate, PDC Community Development Program staff

REVENTAZÓN, COSTA RICA

- ICE (Instituto Costarricense de Energía) staff: Miguel Víquez, Environmental Planning Director, Electricity Planning and Development; Carlos Roberto Rodríguez, Social and Environmental Coordinator, Generation Business Unit; José Rogelio Araya, Environmental Planning Process, Electricity Planning and Development; Gustavo Calvo Domingo, ICE

- FONAFIFO staff: Gilmar Navarrete

- COMCURE staff: Luis Alfonso Pérez Gómez

- Beneficiaries of ICE programs: Evelio Romero Aguilar, Miguel Ángel Pérez Arias, Misael B. Ramírez; Adrian Rossi Soto

- ICE worker, economically displaced by the Reventazón HPP project: Alex Gerardo González Araya

THEUN-HINBOUN EXPANSION, LAO PDR

- Community leaders and members in Phonphong, Phousaat, Sopphouan, Nong Hang

- THPC staff: Robert Allen Jr., General Manager, Vongchanh Indavong, Senior Manager Compliance and Government Affairs, Sustainability Division, Jeff Milgate, Sustainability Manager

OTHER PROJECTS

- Mount Coffee, Liberia: Britta Lammers, environmental specialist; Kristin Stroup, environmental specialist

- Nachtigal, Cameroon: Florence Ardorino, Directrice Environnement et Social, Nachtigal-HPC

- Nam Theun 2, Lao PDR: Olivier Didry, President, Nam Theun 2; Pierre Guedant, Head Environmental and Social, Nam Theun 2; Olivier Salignat, Coordinator of Social and Environmental – Hydro, EDF

- Ngonye Falls, Zambia: Oliver Johnson, Environmental and Social Manager; Angela Chisembele, Communication and Stakeholder Engagement Officer; Doug Smith, external Environmental and Social Advisor

- Rusumo Falls, Burundi, Rwanda and Tanzania: Ekaterina Romanova, Senior Social Development Specialist; Theogene Habakubahoh, Environmental and Social Lead Consultant ; Callie Phillips, Senior, Social Development Specialist; Yadviga Semikolenova, Senior Energy Economist

- SNAP (SN Aboitiz Power), Philippines: Annabelle Vitti Valenzuela, Senior Manager for CSR and Sustainability

- Stortmelk Hydro, South Africa (plus five projects in planning stage in Zambia): Anton-Louis Olivier, CEO of Renewable Energy Holdings

- Tina River project, Solomon Islands: Erik Caldwell, Senior Social Development Specialist, World Bank

- Wuskwatim, Canada: Marcel Moody, Chief of Nisichawayasihk Cree Nation, Indigenous partner in project; Vicky Cole, Director Community Relations North Division, Manitoba Hydro

HYDROPOWER AND BENEFIT-SHARING EXPERTS

- Real Courcelles, Hydro Quebec

- William Greene, Multiconsult

- SHI Guoqing, Director National Research Center for Resettlement

- Shailendra Guragain, President, Independent Power Producers Association of Nepal

- Vincent Roquet, Senior Social Development Specialist, World Bank

- Abishek Singh, Principal Social Safeguard Specialist, Asian Development Bank

- Jamie Skinner, iied

- Stephen Sparkes, Head of Environment and Social Governance, Statkraft International Projects

- Chaogang Wang, Senior Social Development Specialist, World Bank

REVIEWERS

Many internal and external reviewers were consulted in the preparation of this material. Their names are listed in the acknowledgements section, found inside the front cover.

Appendix B

Issues to Explore When Conducting Local Due Diligence

- **Government legal, regulatory and policy frameworks:** Governments and river basin authorities may have laws, regulations, policies and programs related to local community benefit sharing. This can help define the objectives and inform the development of a benefit-sharing program.

- **Government capacity and resources:** Lack of government resources could represent an opportunity, such as increased support for a benefit-sharing program, and risks, such as greater community expectations that the hydropower project will take on government responsibilities.

- **Community governance and institutional capacity:** Understanding the social and political structures that are woven into the community—as well as the community's capacity to work with the developer—is critical. Knowledge of overlapping land and other community interests will ensure appropriate engagement, program design, and eligibility. In situations where local communities' governance and institutional capacity are underdeveloped, the benefit-sharing design should consider capacity-building activities. For programs to be effective, a community capacity-building component should be included in the benefit-sharing design.

- **Presence of Indigenous groups and ethnic communities:** Such groups have historically experienced the brunt of the impacts associated with resource development. Increasingly, there is an expectation that resource development will proceed only with the consent of impacted Indigenous Peoples. Take particular care to consider the rights and interests of Indigenous groups, especially in the context of traditional land use, ownership, and livelihoods. In the case of ethnic communities, culturally appropriate measures may need to be incorporated into program design. Some countries require Free Prior and Informed Consent (FPIC) from affected Indigenous communities, as do financial institutions like IFC and the World Bank.[71] Often, gaining consent requires the inclusion of mutually agreed-on benefit-sharing program. For more on FPIC see box 1.3.

- **Gender issues:** Treatment unfavorable to women can be found in many cultures, yet women's role in livelihood restoration for the whole community is key—they represent 50 percent of the potential workforce. Global experience also shows that women invest a larger portion of their income directly into their families and communities than men do. Giving financial opportunities to women brings greater returns at the community level. Understanding the legal, social, and cultural status of women in the local community will facilitate the design of programs that enfranchise all community members and ensure that women are directly and unequivocally benefited as well. To start what could be a difficult conversation, engaging with the community on ways to create more inclusive benefit sharing might help, beginning with defining and agreeing on women-focused opportunities (if any). Women-only organizations might be needed to accomplish this.

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[71] For more see: World Bank. "Proposed Environmental and Social Standard 7: Indigenous Peoples." Factsheet.

Trung Son hydropower project construction site in Vietnam. *Credit: Mai Ky/WBG*

- **Presence of armed organizations and armed conflict:** Such situations can create unique access challenges for engagement with local communities. When undertaking projects in a conflict or post-conflict zone, sensitivity to remaining social tensions and damage resulting from the conflict will be needed. Consider designing benefit-sharing programs to help address some of these impacts and traumas. For example, ISAGEN in Colombia implemented benefit-sharing activities to support peacebuilding and promote social cohesion. (For more, see the case study volume in this Report Series.)

- **Availability of partners to implement programs:** Partners can include national or regional governments, universities, nongovernment organizations and other companies. Partnerships can involve cofinancing to reduce the developer's funding responsibilities or broaden reach, providing training or technical advice otherwise not available to the developer, assisting with community engagement and administering benefit-sharing projects. Partners, especially government partners, can play an important role in ensuring longer-term sustainability of community support efforts such as maintenance of physical and social infrastructure. There are risks associated with being the sole project implementer, often under pressure to complete the build on time. It can be challenging to disengage post-construction if other institutions' roles and legitimacy are not built in parallel.

- **Regional benefit-sharing trends and precedents:** Prior practices in a country or region often set precedent and expectations about benefit sharing from communities, regulators, and governments.[72] Look to previous successful projects as models for a potential benefit-sharing approach and learn from mistakes from previous unsuccessful cases. Similarly, staying on top of continually evolving political, economic and social situations will help determine whether previously used models need modification, such as in Nepal, where the provision of hydropower project shares to individuals is an evolving practice.[73]

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[72] Interview with Abishek Singh, Asian Development Bank
[73] IFC. 2018. "Local Shares Summary Report. An In-Depth Examination of the Opportunities and Risks for Local Communities Seeking to Invest in Nepal's Hydropower Projects."

Appendix C

Additional Resources on Gender in Hydropower and Renewable Energy

The resources here provide more information on integrating the gender dimension in hydropower and renewable energy.

- African Development Bank Group. "Gender mainstreaming in climate change projects. The case of NOOR Ouarzazate in Morocco." October 25, 2019. https://www.afdb.org/en/documents/gender-mainstreaming-climate-change-projects-case-noor-ouarzazate-morocco

- Durbin, Joanna; Danielle King; Natasha Calderwood; Zachary Wells; and Fabiano Godoy. 2019. "Benefit Sharing at Scale: Good Practices for Results-Based Land Use Programs." Washington, D.C.: World Bank Group. http://documents1.worldbank.org/curated/en/824641572985831195/pdf/Benefit-Sharing-at-Scale-Good-Practices-for-Results-Based-Land-Use-Programs.pdf

- International Bank for Reconstruction and Development/World Bank. 2020. "Stepping Up: Women's STEM Careers in Infrastructure." http://documents1.worldbank.org/curated/en/192291594659003586/pdf/An-Overview-of-Promising-Approaches.pdf

- International Institute for Environment and Development. "Gender considerations in the restoration of livelihoods: resettlement from hydropower." Briefing. July 2018. https://pubs.iied.org/pdfs/17471IIED.pdf

- IRENA. 2019. "Renewable energy: A gender perspective." https://www.irena.org/publications/2019/Jan/Renewable-Energy-A-Gender-Perspective

- Shining, Nang. "Gender and Hydropower: Women's Rights in the Development Discourse." September, 2017. Center for Social Development Studies. https://static1.squarespace.com/static/575fb39762cd94c2d69dc556/t/59fa7c0a0846654cd8e1c64b/1509588000676/MK31_Nang+Shining_Policy+Brief-+electronic.pdf

- Simon, Michael. "Balancing the Scales: Using Gender Impact Assessment in Hydropower Development." Oxfam Australia. October, 2013. https://cgspace.cgiar.org/bitstream/handle/10568/34805/Balancing%20the%20Scales%20Using%20gender%20impact%20assessment%20in%20hydropower%20developmentL.pdf?sequence=1&isAllowed=y

- World Bank. "Results of Collaboration for Social Inclusion in the Trung Son Hydro Power Project, Vietnam." EAP Gender report. May 25, 2017. http://documents1.worldbank.org/curated/en/997951496156020605/pdf/115343-BRI-PUBLIC-TSHP-Social-Inclusion-Results-LJ-Final-rev02517e.pdf

- World Bank Group. 2019. "Gender Equality, Infrastructure and PPPs." https://library.pppknowledgelab.org/documents/5720/download

Appendix D

Mining Sector Good Practices in Climate Resilience Benefit Sharing

The hydro sector is new to benefit sharing. It is even newer to implementing climate resilience benefit-sharing measures, meaning that there are few examples of good practices specific to hydropower projects. This appendix offers three good practice examples from the mining sector, which has longer experience in addressing the issues associated with climate resilience.

- **Vale**, a Brazil-based metal and mining company, ranks as one of the largest producers of iron ore and nickel in the world. The company invested more than $18.6 million to implement a short-term forecasting program at a weather monitoring center. The program issues weather warnings so that its port facility can prepare for extreme weather events. The data gathered from this early warning is used for forecasting and nowcasting—forecasts for the next 30 minutes to 3 hours—enabling Vale to closely monitor weather conditions. The information is also shared with the local authorities so that municipalities are better prepared for extreme weather.

- In the **Limpopo River Basin**, South Africa, water stress that was worsened by a drought led to community protests at Anglo American's Mogalakwena mine. Anglo American engaged with the municipality to find a permanent solution to the community's water shortage issues. They developed a bulk-water strategy and infrastructure plan that aims to ensure long-term water security for the company's operations and for surrounding communities.

- In Peru, **Rio Tinto Minera** implemented a community adaptation project at La Granja, its copper exploration site. In this area, 43 communities face climate-related temperature rises and associated impacts. Using the CRiSTAL tool and CARE International's Climate Vulnerability and Capacity Analysis (CVCA) framework, the project helped these communities to identify risks to their livelihoods and enhance their ability to adapt. The six-step process uncovered significant climate hazards including drought, cold snaps, heavy rains, floods, and landslides. Among the associated impacts: loss of household income, food insecurity, respiratory illnesses, water contamination from dust, reduced hydropower generation due to lower river flows, and damage to water supply pipes. The effort has improved knowledge and understanding of the causes and impacts of climate change. It helped identify new coping strategies and led local communities to incorporate climate resilience in their planning. The company came away with actionable recommendations on how to support community climate resilience. The process developed in this project shows the importance of taking an inclusive and participatory approach to support effective community consultation and ownership of the project's results.

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[74] Cameron, Edward. 2019. "Business Adaptation to Climate Change and Global Supply Chains." Global Commission on Adaptation.

[75] International Council on Mining &Minerals. 2019. "Adapting to a Changing Climate."

[76] For more on these tools, see: International Institute for Sustainable Development. 2007. "Community-based Risk Screening Tool" and CARE. "Climate Vulnerability and Capacity Analysis." July 1, 2019

[77] ICCM.2019. "Adapting to a Changing Climate."

BOX D.1 6 steps to identifying community climate risks and improving resilience

Rio Tinto developed this process as part of a community climate adaptation project at La Granja, its copper exploration site in Peru.

1. Research and discuss climate change with the community.
2. Map livelihood resources—including natural, social, and financial—and hazards, such as drought and flooding
3. Create a calendar and historical timeline of noteworthy seasonal events.
4. Conduct a vulnerability assessment on livelihood resources.
5. Input data into the CRiSTAL tool to generate adaptation measures and validate results with the community.
6. Based on results, build adaptation measures into benefit-sharing activities and validate recommendations with company staff and management.

Source: ICCM.2019. "Adapting to a Changing Climate."

Appendix E

ISAGEN's Organizational Capacity Index Tool

Developed by ISAGEN, the organizational capacity index is a diagnostic assessment tool for measuring the level of self-management attained by local community organizations that are participating in a community development program. It offers a way to understand and visualize the degree of progress made by local groups in achieving their goals.

The tool is designed around 15 subject areas, grouped under 6 variables. Each subject area has 5 indicators which, taken together, yield the rating for that topic. Each variable is classified as either an internal or an external management variable and scored accordingly.

To see the full tool and methodology please visit www.commdev.org.

MANAGEMENT AREA	VARIABLE	SUBJECT AREA	ORGANIZATIONAL ASPECTS THAT INFLUENCE SCORE
INTERNAL MANAGEMENT	I. ORGANIZATIONAL STRUCTURE	1. Individual and group leadership	Legal representative or president (Individual)
			Board of directors (Group)
			Committees or commissions (Group)
		Individual and group leadership: score	
		2. Assignment and fulfillment of roles and responsibilities	Functions
			Job profiles and descriptions
			By-laws
		Assignment and fulfillment of roles and responsibilities: score	
		3. Compliance with applicable laws and regulations	Administrative and tax laws
		Compliance with applicable laws and regulations: score	
	Organizational structure: score		
	II. PLANNING AND CONTROL	4. Diagnostic assessment and organizational identity	Organizational identity
			Diagnostic assessment
		Assessment and organizational identity: score	
		5. Work plan	Work plan
		Work plan: score	
		6. Monitoring and evaluation	Reports
			Oversight (supervisory body)
		Monitoring and evaluation: score	
	Planning and oversight: score		

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MANAGEMENT AREA	VARIABLE	SUBJECT AREA	ORGANIZATIONAL ASPECTS THAT INFLUENCE SCORE
INTERNAL MANAGEMENT	III. COMMUNICATION AND COMMUNITY PARTICIPATION	7. Convening power and community participation	Convening power and participation
		Convening power and community participation: score	
		8. Communication and information systems	Communication and information
			Documentation
		Communication and information systems: score	
		9. Conflict management	Maintenance of good relations and reconciliation
		Conflict management and resolution: score	
	Communication and community participation: score		
	IV. TRAINING, KNOWLEDGE, AND EXPERIENCE	10. Training	Strategies
		Training: score	
	V. ECONOMIC, FINANCIAL, AND BUSINESS MANAGEMENT	11. Sources of financing and production of goods and services	Sources of financing
			Resource management
			Productive activities
		Sources of financing and production of goods and services: score	
		12. Financial statements and accounting records	Accounting records
		Financial statements and accounting records: score	
		13. Budget	Budget of receipts and expenditures
		Compliance with applicable laws and regulations: score	
	Economic, financial, and business management: score		
EXTERNAL MANAGEMENT	VI. KNOWLEDGE AND RELATIONSHIP WITH THE INSTITUTIONAL ENVIRONMENT AND SURROUNDING COMMUNITY	14. Knowledge and utilization of development plans	Development plans
		Knowledge of development plans: score	
		15. Influence and engagement in local and municipal affairs	Civic participation
		Influence and engagement in local and municipal affairs	
	Knowledge and relationship with the institutional environment and surrounding community: score		
Internal management: score			
External management: score			
Total score			

IFC
2121 Pennsylvania Avenue, N.W.
Washington, D.C. 20433 U.S.A.

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