

AN ICWC REPORT

Large dams and human rights obligations

The case of the Pancheshwar Multipurpose Project on the border between India and Nepal



United Nations
Educational, Scientific and
Cultural Organization



International
Centre for Water
Cooperation



This report was written by Dr Jenny Grönwall with input from David Michel. It builds on a study conducted for the Sida-funded, Oxfam-led Programme Transboundary Rivers of South Asia (TROSAs) in 2018. At SIWI this Programme was coordinated by David Michel and supported by Alexandra Said.

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SIWI ISBN 978-91-88495-18-1

How to cite: Grönwall, J., 2020. Large dams and human rights obligations: The case of the Pancheshwar Multipurpose Project on the border between India and Nepal. Stockholm: International Centre for Water Cooperation, Stockholm International Water Institute.

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Foreword

The development of clean and renewable energy is indispensable to meet the increasing demand for electricity while limiting the impact of climate change. Much focus is on development of new solar and wind energy, but hydropower has also received renewed attention in recent years as a source of reliable and sustainable power supply that provides relatively cheap electricity. Currently, thousands of new hydropower dams are being planned or built around the world. The development of new hydropower dams, however, does not come without environmental and social costs. In addition to loss of biodiversity and the decline in services provided by ecosystems, the displacement of local people can be among its negative consequences, brought about especially by large-scale projects.

The human rights and environment protection nexus has come to the forefront recently, in particular with the linkages to climate change. It is increasingly recognised that the unsustainable management and use of natural resources can have negative implications, both direct and indirect, for the effective enjoyment of all human rights. This report adds new and unique knowledge by looking into the development of large dams from a perspective of human rights and related international law. In doing so, it zooms in on the specific case of the planned construction of the Pancheshwar Multi-Purpose Project (PMP) on the Mahakali–Sharda River on the border between India and Nepal. Once completed, the dams are predicted to submerge 116 km² and it is estimated that almost 60,000 people will be displaced if the project is realised.

The building of large dams may directly affect the human rights to an adequate standard of living and

to adequate housing, among other substantive rights. Though the human rights framework does not prevent development projects from taking place, it imposes conditions and procedural limits on them. Key aspects lie in the way in which such projects are conceived, developed, and implemented. This report also highlights opportunities for making affected people beneficiaries and enabling them to actively contribute to formulating and enjoying project benefits. Applying a Human Rights-Based Approach in the development of natural resources offers opportunities for a more sustainable and peaceful process by providing a systematic method to strengthen respect for human rights, democracy, and the principles of the rule of law.

This report is produced by the [International Centre for Water Cooperation](#) (ICWC) under the auspices of UNESCO. The ICWC is hosted by the Stockholm International Water Institute (SIWI) and facilitates research, capacity building and policy advice on transboundary water management in connection with peace, conflict and regional development.

Stockholm, June 2020



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Executive summary

Large hydropower dams tend to have a set of negative impacts on people and the environment in the areas where they are being built. Yet, they also bring benefits from clean, renewable energy, irrigation opportunities and reduced risk for devastating floods, all of which are foundations for prosperous development and investments for present and future generations. Trade-offs between benefits and negative impact are treated as something inevitable.

The human rights-based approach was proposed as a tool for planning and assessment of dams already two decades ago by the World Commission on Dams. Normative in its nature, this approach can be used as a step-by-step method to lay bare the rightful claims, freedoms, and entitlements of the concerned and enable those responsible—recognising the State as the primary duty-bearer, if necessary through assistance by the world community—to ensure due participation and transparency in decision-making processes. This value-based, people-centred way of framing and stemming a potential conflict is meant to offer a degree of remedy by empowering people to demand justice as a right.

This report narrates the story of the Mahakali–Sharda, the only large river that is still undammed on its mainstem in the Himalayas. Though each case study has its highly contextual particularities, the human rights reasoning here is applicable to many large infrastructure projects in the making.

All of Nepal’s rivers flow into India and cooperation between the two neighbours is vital, not only to regulate the rivers and prevent flooding but to develop the possibilities they offer as well. The presently abundant water resources of the Hindu Kush Himalayas—often referred to as part of the ‘Third Pole’ for being the area that stores more snow and ice than anywhere in the world except for the North and South Poles—provide irrigation for both countries and contain significant hydropower generation potential.

The Mahakali–Sharda River forms a major sub-basin of the Ganges river system, constituting part of the two countries’ border before it enters India. The 1996 Mahakali Treaty sets the terms for development of the Pancheshwar Multi-Purpose Project (PMP), designed to provide hydropower, irrigation and flood control benefits to both nations. The PMP will consist of two dams including one that would be the world’s second tallest at 315 m and is expected to submerge 11,600 hectares (ha) of land, most of it in India.

Two and a half decades on from the Treaty’s inception, however, construction has yet to begin. Water relations between the two neighbours are heavily politicised.

Authentic divergences of interest have often been aggravated by mutual mistrust. In December 2019, the countries agreed to extend the tenure of the team of experts, once more.

Many of the concerned in the Mahakali–Sharda basin, as well as experts, challenge the effectiveness and legitimacy of the public policy processes being used to assess and validate the PMP. Without adequate safeguards and planning, populations displaced by major infrastructure very often lose not only their homes but also their livelihoods and cultural heritage, with further risks of limited access to water, sanitation, health, and educational services in the places where they are resettled. Indian and Nepali critics alike agree that national decision-making for mega-projects such as the PMP suffers significant flaws. The processes for funding, siting, building, and operating large scale projects can be opaque, subject to biases, open to rent seeking and corruption, and closed to the inputs and interests of local communities, marginalising vulnerable populations. Detrimental social and environmental impacts—which may outweigh the anticipated returns—are often dismissed or discounted, if they are appropriately assessed and incorporated into decision-making at all.

The human rights to participation in decision-making and to adequate housing do not prevent development projects from taking place, but impose conditions and procedural limits on them. It is the way in which such projects are conceived, developed, and implemented that is important.

The State Governments of the two countries are bound by international obligations to refrain from and protect the affected almost 60,000 people against forced eviction. They must guarantee that evictions do not contravene existing human rights standards, providing sufficient and relevant information and participation throughout the process, and fair and just compensation for all losses imposed on those affected so that they do not suffer unduly. The States are also obliged to respect the prohibition against discrimination and the consideration due to marginalised and vulnerable groups.

Objections have arisen explicitly around the public consultations convened to air questions regarding the PMP’s impact assessments and management plans. Many argue that the PMP’s projected costs and benefits are unequally distributed. Its hydropower and irrigation water would largely be exported outside the basin, they say, and the electricity produced could ultimately prove surplus to demand in India, undermining the economic rationale for joint development. Similarly, critics object

that the assessments downplay the project's negative social and environmental consequences, disregarding climate impacts, and failing to evaluate or compare alternative strategies. Many stakeholders and civil society organisations have therefore called for India and Nepal to rethink the PMP and invest instead in smaller-scale energy and infrastructure projects, agricultural extension services, and ecotourism.

Emerging environmental risks alongside local geological sensitivity raise additional questions about the PMP's development and viability. Climate change will significantly impact freshwater across the basin, affecting hydropower, irrigation, and management decisions over the PMP's construction and operation.

New sources of renewable energy are regarded inevitable in the global energy mix to ensure the 'human

right to development' through improved electricity access. This report employs the human rights-based approach as a normative perspective for pursuing fundamental freedoms, democracy and respect for human rights in the face of socio-economic and environmentally sustainable development. Identifying the actualised rights and obligations contributes to furthering the realisation of them by highlighting where the rights need to be better integrated in planning and execution and by whom.

The PMP has been on the drawing table for decades and concrete work has not yet begun. In theory, there is still time to remedy and cure the human rights and fundamental freedoms that are at stake, to avoid future violations and abuse. What a HRBA cannot do, however, is to give assurances to those waiting to learn whether the threats of displacement will eventually become reality.



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1. Introduction

1.1 Shared river, shared dams

Water binds India and Nepal inextricably together. All of Nepal's rivers flow into India and join the Ganges basin. These transboundary waters provide practical links today and offer potential for shared benefits. The presently abundant water resources of the Hindu Kush Himalayas—often referred to as the 'Third Pole' since the area stores more snow and ice than anywhere in the world except for the North and South Poles—provide irrigation for both countries and contain significant hydropower generation potential. India's expanding economy offers both possible development investment and prospective markets for Nepali electricity. Appropriate infrastructure development in upstream Nepal can help protect downstream India from floods and sedimentation. Inland navigation projects could connect landlocked Nepal to India's waterways and ports. In short, cooperation on their rivers can help India and Nepal to ensure their water, food, and energy security.

The Mahakali–Sharda River—also known as the Sarada or Kali River once it enters India and becomes a tributary to the Ganges—runs up in Nepal at Kalapaani in the Himalayas at an elevation of 3,600 m. The river serves as part of the border between the two countries, though intense floods and irregular water flows tend to move the river's course and have at times created border disputes at a local level. Two-thirds of the basin lie in India and one-third in Nepal: encompassing a total area of 17,818 km³, the basin covers several districts in

Uttarakhand state and a small part of Uttar Pradesh state in India, and spreads over half of Nepal's Province Seven in the west. It is home to some two million people, many of whom depend on agriculture for their food security and livelihoods; the Gangetic Plain is one of the planet's most intensively cultivated regions.

Yet throughout the basin, especially in Nepal, lack of rural infrastructure, including irrigation and roads, limits agricultural productivity and market access. Difficult topography, vulnerability to natural disasters and extreme climate conditions complicate development. Gender and caste-based discrimination, widespread child labour, a legacy of socio-economic exploitation, such as bonded labour, and insufficient public health and school services also remain challenges. In this basin, poverty bites hard.

The region is vulnerable to excessive rains, flash floods, erosion and landslides. The danger of flooding and lack of effective early warning systems is presently perceived as the major problem in the upper reaches of the river basin. Since long there are also conflicts over the sharing of water resources for irrigation purposes.

The perennial river forms part of the world's tallest mountain range and like many others in the area it has vast potential for the development of 'clean' (climate-friendly) and renewable hydropower. The steep gradient of the topography provides ideal conditions for generation of electricity at affordable cost, seen as an essential prereq-



Figure 1. Map of the Mahakali–Sharda River. From Google Maps <https://bit.ly/3eLU9cm>.

uisite for the growth of both countries (Chaturvedi, 2019). In 2019 India had, for the first time, sufficient or even surplus electricity generation capacity with a gross installed electricity capacity of over 350 GW. Nevertheless, the country suffers from grid-level losses, infirm capacity (linked to renewable energy), as well as plants under ‘outages’ due, among other things, to lack of fuel. A projection of the demand growth shows any surplus might only last two–three years: India needs peaking power, storage, and load-shifting as tools combined with more flexible and time-of-day reflective pricing for electricity supply (Parray and Tongia, 2019). Meanwhile, the electrification rate of Nepal remains one of the lowest among developing countries and the supply–demand gap is consistently widening, partially because of delayed and overpriced hydropower projects, challenging electricity distribution conditions, and outdated and insufficient energy infrastructure. Nepal spends heavily on electricity imports, mainly from India and especially to overcome supply deficits during dry seasons (Poudyal et al., 2019). In 2018, the total installed capacity in Nepal’s power system was 1,073 MW (World Bank, 2018).

The Pancheshwar Multi-Purpose Project (PMP), a joint venture between Nepal and India is planned to include the erection of what would be the world’s second tallest dam at 315 m as well as a re-regulating dam further downstream. Besides contributing to the energy mix and to year-round irrigation benefits the project is envisaged to provide incidental flood control for both the countries thanks to a moderation of the flood peak at the reservoirs. It could furthermore address water deficit by long distance water transfer in due course (Government of India, 2019).

The dam sites sit in the higher Himalayan region, extremely prone to seismic activity, with many fault lines as well as seismically and tectonically active belts. Pancheshwar is located some 440 km north-west from where the Gorkha earthquake erupted in 2015. It caused massive destruction of infrastructure, killed more than 9,000 people and injured almost 22,000. The PMP has consequently met with criticism for not properly accounting for the effects of the geodynamic reality on dam performance and safety, or for the impacts on the ecologically sensitive area (Sati et al., 2019).

Once completed, the dams are predicted to submerge 116 km² and affect a large number of families, including marginalised communities and indigenous peoples. Though the exact figures differ between different sources, estimations are that almost 60,000 people will be displaced because of the project.

Two decades back, the World Commission on Dams (WCD) published a report, the message of which involved a paradigm shift in its look at proposed water and energy development projects. The Commission found that “we have to bring new voices, perspectives

and criteria into decision-making, and we need to develop a new approach that will build consensus around the decisions reached” (WCD, 2000: 197). The approach suggested involves recognition of the rights at stake, alongside assessment of the risks associated with the planning for and building of dams.

The WCD was set up in 1997 as an *ad hoc*, independent body sponsored by the World Bank to review the global experience with large dams. A year prior, the then Campaigns Director of the International Rivers Network published his seminal book *Silenced rivers: The ecology and politics of large dams* (McCully, 1996). Inspired by the controversies caused by the building of the Sardar Sarovar dam in India and the *Narmada Bachao Andolan* movement, the author lamented the lack of comprehensive assessments of the effects of large dams but also predicted the end of the Big Dam era—while noting that small dams also have their disadvantages. Nonetheless, we are presently witnessing a global boom in hydropower dam construction with a capacity of more than 1 MW in response to human population growth, economic development, climate change, and the need to close the electricity access gap (Zarfl et al., 2015). As much as ever, they could trigger harmful outcomes to local, directly affected stakeholder groups, and the environment (Siegmond-Schultze et al., 2018). The PMP is no exception.

Acknowledging these critical insights, this report seeks to inform and challenge the current debate about hydropower as climate-friendly energy generation and provide a contextualised understanding of the situation for the people affected by a very lengthy process. It ultimately seeks to offer answers to the question whether due recognition of human rights and interconnected obligations can provide a remedy to the impact of large hydropower projects on social and environmental justice.

1.2 About this report

This report places special focus on a planned dam project from a human rights perspective. It applies a human rights-based approach (HRBA) to discuss matters of shared water resources by examining the framework of internationally accepted norms on human rights, the right to development, and sustainability. It draws on the *Manual on an HRBA to Integrated Water Resources Management* (Cap-Net, SIWI et al., 2017) to explore participation and inclusiveness as fundamentals of decision-making processes, alongside principles of Law /Legislation,¹ Accountability, Non-discrimination, Empowerment, and Transparency. Together, these form the acronym PLANET as used by development

¹ The ‘L’ in PLANET stands for ‘Links’ to Sida. For others, it may stand for Legality or Legally enforceable.

cooperation agencies such as the Swedish International Development Cooperation Agency, Sida, when programming a human rights-based approach.

Ideally, the rights-holders in question should be involved already at the stage when the current, actual status of human rights is analysed. However, this is not always the case in practice (Broberg and Sano, 2018). This report builds on a desktop examination of documents available online, including briefs, reports, peer-reviewed papers, magazine and newspaper articles, and blog texts from NGOs and civil society organisations, as well as personal communications with experts. It also relies on fact-finding on the ground and a context analysis of the Mahakali River Basin undertaken by Bhattarai and Bastakoti (2018) for the Transboundary Rivers of South Asia (TROSA). TROSA is a Water Governance Programme funded by Sida and implemented 2017–2021 by Oxfam and its partners, including SIWI.

The report draws heavily on the Environmental Impact Assessment (EIA)—what is here termed the ‘official’ EIA (including the Social Impact Assessment, SIA, report). It was conducted for the Pancheshwar Development Authority and published in 2017. References to pages in this report are for the pdf version. The EIA Volume-IV: Public Hearing Proceedings is not to be found on this site, though; instead, it was downloaded from the website of the NGO Save Mahakali River (referred to here as PDA, 2017b). A Detailed Environmental Management Plan (DEMP) was published around 2013 (referred to as Shah Consult, nd). An EIA report, conducted in Nepal by Water Resources Consult Ltd., in 2012 and referred to in the DEMP and in the official EIA, is not available in soft copy versions, but volume I was accessed via an informant who had taken photos of each page of the report (on file with author).

In terms of the secondary sources used it is noticeable how various reports released by the involved parties in recent years are neither aligned nor consistent in terms of background facts and figures. A case in point is the ‘official’ EIA, which includes an SIA, of October 2017: when listing select data relating to the Nepali side, the latter documents refer to “the EIA Report prepared in 2005–06” (PDA and WAPCOS, 2017a: 13). Several EIAs have, in other words, been carried out but the latter takes precedence. The SIA report published in June 2017 is not identical with the one included in the October version. There is also a 653-page report documenting public hearings—but only on the Indian side (PDA and WAPCOS, 2017b). These examples highlight that the parties are not entirely in sync with each other, and that it may be difficult to hold actors to account when different versions of key material exist. This report seeks to give an unbiased picture of what is available to decision-makers, scholars and the concerned with the disclaimer that only information in the English language has been reviewed.

Questions that lie outside the scope of this report include the private sector’s responsibility to respect the human rights, and potential financing institutions’ application of the Equator Principles. The latter involve requirements that assessments of environmental and social risks follow certain minimum standards for due diligence and monitoring to support responsible risk decision-making. The Equator Principles are to be used as part of credit risk analysis before loans can be given by financial institutions that have adopted them. At the point of publishing, it was premature to explore those aspects as the PMP has not yet advanced to the stage of final decision on construction.

2. The Pancheshwar Multipurpose Project

2.1 Background: Regulating a river

Water relations between India and Nepal date back at least two centuries to the British colonial period. Indeed, water diplomacy defined the borders of modern Nepal, as the 1816 Sugauli Treaty fixed the Mahakali–Sharda River as the western frontier between the Gorkhali Empire and British India. The Treaty made no reference to water as a resource, rather than a boundary. But the agro-industrial development of the Indo-Gangetic plains over the course of the 19th century soon highlighted the value of harnessing the region's rivers. Supplying farmers with sufficient crop water raised yields and therefore tax revenue, leading first the British East India Company and then the British state to begin developing irrigation systems.

Historical grievances, real and perceived, continue to weigh on hydro-relations between the two riparians, complicated by the regional geopolitics and sensitivities surrounding interactions between a small country and a dominant neighbour (Iyer, 1999; Dhungel and Pun, 2009; Huda and Ali, 2018). The political economy and effective possibilities for transboundary water cooperation in the Mahakali–Sharda basin sit squarely in this context. The Mahakali–Sharda figured from the outset in government water development objectives. As early as 1869, it was proposed to build a barrage over the river to divert water for irrigation. The first such project on the river, the Sharda Barrage (dam), was built in the 1920s under an agreement signed between British India and Nepal that transferred ownership of a part of the left bank area from Nepal, with the result that the Barrage as a whole belongs to India. It still regulates the diversion of the river exclusively for the purpose of irrigation and power in Uttarakhand State in India. The river is also governed by the *Indo–Nepal Treaty of Friendship and Peace* (1950) that allows for free movement of people and goods across the border, but which does not specify the use of the water.

Between 1960 and the mid-1990s, several multi-purpose water resource projects were identified and studied in Nepal for joint development by India and Nepal together, including the Pancheshwar project. Yet despite multiple rounds of talks and negotiations, a lack of mutual trust between the two riparians deterred further cooperation. In 1983, without consulting Nepal, India began building the Tanakpur barrage on the Mahakali–Sharda River. The planned project would regulate irrigation water for 1.6 million ha in India and incorporate a 120 MW hydropower plant. Despite the controversy it provoked in Nepal, including mass protests resulting in some reported deaths, the construction work was essentially completed by the mid-1990s

(Rahaman, 2009a; Gyawali and Dixit, 1999; Dhungel, 2009; Mirumachi, 2013).

The 1920 agreement as well as that on the Tanakpur barrage were incorporated into the comprehensive *Treaty between his Majesty's Government of Nepal and the Government of India Concerning the Integrated Development of the Mahakali River including Sarada Barrage, Tanakpur Barrage and Pancheshwar Project* (hereafter the Mahakali Treaty). Signed in February 1996 and coming into effect in June 1997, it regulates the use and development of the river including management of the two barrages that currently control the water flow.

While adding provisions for the new Pancheshwar Multi-Purpose Project, the terms and principles of the Mahakali Treaty marked a notable departure from those of previous agreements. Notably, it sought to enshrine a number of important co-operative practices and principles. The Treaty declared that both countries enjoy equal entitlement to utilise the river's waters without prejudice to their respective existing consumptive uses – a provision regarded as unfair and a manifestation of the power imbalance between the parties at the mid-1990s. Any future projects developed on the portions of the Mahakali shared as the boundary of the two countries would be designed and implemented by agreement. To maintain the river's water levels, both parties committed to not obstruct, divert, or adversely impact its flow, whether by projects on the main river or on its tributaries within each country, except by agreement between the parties. (Withdrawals by local communities living along the river were exempted, so long as their use does not exceed 5 per cent of the Mahakali's annual flow.)

Nevertheless, important questions remained in the details, and caveats and criticisms soon surfaced. Before clearing the Treaty, the Nepali Parliament also unanimously passed a qualifying stricture (*sankalpa prastav*), the effective status of which in international law remains unclear (Gyawali and Dixit, 1999).

In contrast to the earlier river agreements between India and Nepal, the Mahakali Treaty instituted a *Mahakali River Commission*, composed of representatives from both countries, to coordinate planning and oversee the Treaty's implementation. Should the Commission prove unable to settle any differences that might arise, Treaty Article 11 created detailed arbitration procedures. Affirming the agreement's Treaty status, Article 12 required formal ratification by both parties, stipulating the accord would remain in force for 75 years, with mandatory review every ten years (Subedi, 1999; Salman and Uprety, 1999; Rahaman, 2009b).

2.2 The Multi-Purpose Project

The Pancheshwar High Dam was first conceptualised in the 1950s. India identified the potential dam site in 1956 during a hydroelectric survey of the Mahakali–Sharda by what was then the Indian Central Water and Power Commission—but the plans were shelved for several decades due to conflicts within and between the countries. Experts claim that Pancheshwar was a dam that India had wanted all along but for which Nepal had not shown much interest because of their smaller requirements for water and power. There was also a lack of clarity from the Indian side regarding power purchase price as well as valuation of irrigation benefits (Gyawali and Dixit, 1999).

The Indian state government of Uttar Pradesh then carried out field surveys, leading in 1971 to the creation of a project report by India's Water and Power Consultancy Services Ltd (WAPCOS) that envisaged erecting a 232 m high dam at Pancheshwar for hydropower generation. India shared the WAPCOS report with Nepal that same year, but no action was taken. Later, in the Mahakali Treaty, the parties agreed to implement the Pancheshwar project in accordance with a Detailed Project Report (DPR), prepared by both countries to maximise total net benefits from hydropower, irrigation, and flood control. The project would be executed jointly in integrated fashion. Two power plants would be constructed, one on each bank, operated together. The power generated would be divided equally, although Nepal would sell a portion of its share to India, with the quantity and price to be mutually agreed. Both countries would jointly seek to mobilise the required financing, while costs would be allocated in proportion to the benefits accruing to each party (Subedi, 1999; Salman and Upreti, 1999; Rahaman, 2009b).

Following a halting series of data exchanges and preliminary studies, India and Nepal in 1991 moved to draft a DPR, dividing the work between them. Nepal presented a draft report to India in 1995 at the outset of discussion on the Mahakali Treaty. This draft DPR proposed constructing a 315 m high dam, with a power plant located on each side of the river and a smaller, regulating dam located 27 km further downstream at Rupaligad (Dhungel 2009; Water Resources Consult 2012; PDA and WAPCOS, 2017b).

Over the years the two countries assessed aspects such as the total power and irrigation benefits from the project differently, resulting in substantially different formulas for allocating the costs. India and Nepal remained at loggerheads until November 2009 and the third Meeting of the Joint Committee on Water Resources (JCWR). The JCWR, headed by the Secretary of the Ministry of Water and Energy from Nepal and the Secretary of the Indian Water Ministry, had been set up in 2000 to monitor progress on the two countries'

water agreements and recommend and approve necessary actions to advance their co-operative objectives. At the 2009 meeting, the Joint Committee finally settled the location of the downstream regulating dam, selecting the Rupaligad site, enabling the work on the DPR to go forward. During the same meeting, the Committee also decided to establish an independent Pancheshwar Development Authority (PDA), composed of governing representatives and technical staff from both countries, to oversee the project's implementation. Still, another five years passed. In August 2014, during his Nepal visit, Indian Prime Minister Narendra Modi and his Nepal counterpart Sushil Koirala agreed to speed up the project. The PDA was formally constituted and it was decided that it would finalise the detailed project report of the PMP within six months and begin its implementation within one year (Dhar and Dutta, 2015; Water Resources Consult, 2012; PDA and WAPCOS, 2017b; Aggarwal 2018).

Years later, the project had not progressed beyond the release of various documents. WAPCOS was eventually entrusted to prepare a pre-feasibility report, which was ready in March 2015; it submitted a draft final DPR to PDA in November 2016 (WAPCOS, 2016). Documentation of an Environmental Impact Assessment and Public Hearing Proceedings followed the year after (PDA and WAPCOS, 2017a, b). On the Indian side, an online application was filed by PDA for environmental clearance. The first meeting of an Expert Appraisal Committee was held in October 2017 and a Sub-Committee of it visited the project site in November 2017. Additional online applications were [are] supposedly "underway by PDA/ WAPCOS" (MoWR, nd).

The reports filed by PDA and WAPCOS in 2017 reveal the plans for the PMP to meet a substantial part of the energy and peak power demand of Northern India as well as stabilising the power grid, and cover the medium and long-term energy requirements of Nepal; a portion of Nepal's share of the energy generated is to be sold to India. The Project is claimed to render an irrigation potential of about 4,300 km² (430,000 ha) and aims to enhance food grains production in both countries by providing year-round irrigation from the augmentation of dry season flows. Due to regulation of the natural flood peaks at the reservoirs, incidental flood control benefits along the lower course of the river are also foreseen during wet season.

The PMP is to consist of two dams. The main regulating Pancheshwar Dam will be close to Mahakali, an important Hindu temple. It is to be 315 m high, with a reservoir about 80 km long, a surface area of 116 km² and a total gross storage volume of about 11.35 billion m³. Two underground power houses, with a total installed capacity of 4,800 MW, are planned, one on each bank of the river. A second, re-regulating dam,

81 m high, is planned for downstream at Rupaligad, also with two underground power houses and an installed capacity of 120 MW each. The PMP is estimated to generate a total of 7,678 GWh dependable power every year at the main dam complex; in addition, 1,438 GWh of dependable power would be generated annually at the Rupaligad dam power stations.

The scale of the PMP has been described as “so far unprecedented in India” (Aggarwal, 2018). The dam at Rupaligad is expected to submerge 116 km² (11,600 ha) in total, of which 76 km² (7,600 ha) will be in Uttarakhand State in India (Joshi, 2017a). For comparison, the controversial Sardar Sarovar dam in India is just under 140 m high but displaced more than 200,000 people.

According to the available material (PDA and WAPCOS, 2017a; Shah Consult, nd; Water Resources Consult Ltd., 2012) almost 60,000 people will be permanently displaced because of the Pancheshwar project. Many more will be—and are already—affected by the plans.

However, one expert stresses that when the EIA states that 123 villages will be drowned in India and in Nepal, areas under 25 Village Development Committees and one municipality are expected to face submergence, these figures are based on a shoddy social impact assessment. WAPCOS, who conducted the EIA and SIA, is an agency under the Indian Union Ministry of Water Resources, the developing and lobbying organisation for the project. An EIA is supposed to be done by an independent organisation, which WAPCOS is not (Thakkar, 2017a).

3. A human rights-based analysis of the PMP

The PMP, like all large infrastructure projects, will inevitably affect many thousands of households' human rights and freedoms. This main part of the report aims to unpack what rights and what corresponding duties and responsibilities are actualised by this multi-purpose project.

The UNDP Human Development Report 2000 found that six fundamental shifts were required from the thinking that dominated the 20th century:

- From state-centred approaches to pluralist, multi-actor approaches—with accountability not only for the State but also for media, corporations, schools, families, communities and individuals;
- From national to international and global accountabilities—and from the international obligations of States to the responsibilities of global actors;
- From the focus on civil and political rights to a broader concern with all rights—giving as much attention to economic, social and cultural rights;
- From a punitive to a positive ethos in international pressure and assistance—from reliance on naming and shaming to positive support;
- From a focus on multi-party elections to the participation of all through inclusive models of democracy;
- From poverty eradication as a development goal to poverty eradication as social justice, fulfilling the rights and accountabilities of all actors.

Box 1: The shift that the HRBA involves. Adapted from UNDP, 2000.

3.1 Background

The nexus between democracy, human rights and sustainable development saw the light of day when the UN General Assembly adopted its Declaration on the Right to Development in 1986. The Declaration marked a significant step by the international community in developing a normative framework that specifies obligations and responsibilities in applying human rights. A decade later the rights-based approach—or rather approaches—(here: HRBA) matured partially in response to how development cooperation assistance and interventions had hitherto been regarded as something that could be met through voluntary commitments and charity-based actions for poverty alleviation. Individuals and groups targeted had hitherto been perceived,

relatively seen, as passive beneficiaries and recipients of commodities, services and other types of aid to meet their various needs. The HRBA concept has since been promoted by a host of development actors but also met with increasing criticism during the 2010s. Among weaknesses is how the approach presupposes that it is possible to invoke the rights in question against a sufficiently well-functioning state. There is also no agreement concerning its implementation in practice (Broberg and Sano, 2018).

The people-centred HRBA discourse recognises that those affected by a project, programme or intervention have certain freedoms and entitlements under the international human rights framework, whilst certain actors bear corresponding binding obligations or non-binding responsibilities. Standards such as non-discrimination, transparency, accountability and the participation of those affected in decision-making form the procedural point of departure. The principles and standards constitute an agreed set of norms backed by international law, which provides them a stronger basis for citizens to make claims on their States and for holding them as well as non-State actors to account for their duties. The normative force this stipulates is also likely to give priority to severe or gross types of rights violations even if these affect only a small number of rights-holders (Nyamu-Musembi and Cornwall, 2004).

The idea behind the HRBA is that by identifying on the one hand what universal and inalienable human rights are at stake and for whom, and in particular for vulnerable groups in society, and on the other hand what actors are expected to protect, respect, fulfil and promote those very rights, a vital and pragmatic step is taken towards realising them. The instrumental rationale is that taking this approach results in more sustainable development outcomes because it addresses inequalities, discriminatory practices and unjust power dynamics that exacerbate conflict in human rights and development processes, and which often play an important role in planning and execution of projects with long-term impact on people and the environment. Furthermore, it puts a special focus on gender equality and on groups subjected to discrimination and suffering from disadvantage and exclusion, notably minorities and indigenous peoples (UNFPA and Harvard School of Public Health, 2010).

In the year 2000, the UNDP Human Development Report focused on human rights as an intrinsic part of development. It explored the new rights agenda for the 21st century and proposed bold new approaches to political and economic governance that deliver social justice (see Box 1).

The programming of the HRBA among human rights and development practitioners necessitated streamlining through the adoption of a *UN Statement of Common Understanding on Human Rights-Based Approaches to Development Cooperation and Programming* in 2003 (UNDG, 2003). This places responsibility on all involved to operationalise the goals of the development cooperation through various means: it puts focus on the (identification of) judicable entitlements of active *rights-holders*, and the claims they can make on equally active *duty-bearers* to be answerable for realising applicable human rights. Both sides are, in effect, to be regarded as ‘agents of change’. The rights and corresponding obligations are expressed in international and domestic law, under which states are to ensure the formulation, adoption and implementation of policy, legislative and other measures. A country should also establish institutional mechanisms to uphold rights as well as duties, so that the human rights are admissible in national courts.

According to the Common Understanding, the *goal* of all development cooperation and technical assistance should be to further the realisation of human rights, recognising that these rights are universal and inalienable, indivisible, interdependent and inter-related. In this *process*, all work should also be guided by the principles of non-discrimination and equality, transparency, accountability and the rule of law, and empowerment of—and the giving of priority to—women, children and vulnerable groups. Ultimately, the *outcome* of such development cooperation should be to contribute to the development of the capacities of duty-bearers to meet their obligations, and of rights-holders to claim their rights. Accordingly, the HRBA is meant to give equal attention to what should be done and how it should be done, in different phases and steps of a project or programme cycle (UNDG, 2003; UNDG-HRWG, nd).

3.2 The history of the HRBA for dams

The HRBA received wide support and elaboration as a new concept already by the World Commission on Dams (WCD). In its report *Dams and Development: A New Framework for Decision-making* (WCD, 2000), the Commission argued that since the adoption of the United Nations Charter in 1945 and the Universal Declaration on Human Rights in 1948—augmented by the Rio Declaration on Environment and Development of 1992, among other agreements—a globally accepted ‘sustainable development’ framework has gradually emerged that sets out universal goals, norms, and standards. Based on this the WCD advocated an improved tool for planning and deciding on water and energy resources management. This tool recognised human rights, but also assessed risks. The approach aimed to provide a more effective framework for integrating

economic, social, and environmental dimensions, taking into account the values of equity, efficiency, participatory decision-making and accountability. On its part, the Commission found that various types of rights may be relevant in the context of large dam projects: constitutional and codified rights, customary rights, and the [contractual or licence-based] rights of developers and investors.

Based on the findings of a global review of large dams, and what it described as the implications of a normative development framework consisting of the Universal Declaration of Human Rights, the 1986 Declaration on the Right to Development, and the Rio Declaration on Environment and Development, the Commission criticised the traditional ‘balance sheet’ approach of assessing costs and benefits of a project as being “an inadequate tool for effective development planning and decision-making” (WCD, 2000: 206). Dams clearly illustrate how the inevitable trade-offs neither capture the complexities of considerations involved, nor adequately reflect values that societies attach to different options for a ‘sustainable’ development.

The Commission suggested that mechanisms for conflict resolution must begin with an assessment of all rights and entitlements, and that at this stage all claims must be subject to a fair, open, and transparent review. Such an approach offers “the only process through which various interests can be legitimately reconciled”, and these steps are essential in identifying what legitimate claims and entitlements might be affected by the proposed project, and which stakeholder groups are entitled to a formal role in the consultative process. It is concluded that “only decision-making processes based on the pursuit of negotiated outcomes, conducted in an open and transparent manner and inclusive of all legitimate actors involved in the issue, are likely to resolve the many and complex issues surrounding dams” (WCD, 2000: 211).

The Commission stresses that not all countries possess the necessary capacities to effectively implement a participatory approach to decision-making. In such cases when the full range of legal and institutional structures and/or the human and financial resources are missing, it becomes a priority [of the world community and the UN system] to assist them.

3.3 The HRBA principles

Many organisations that apply the HRBA place special emphasis on the procedural human rights principles as mechanisms. Participation, accountability, non-discrimination, and transparency are the foremost. In the following section, participation and transparency are elaborated on, being critical to the PMP.

The international human rights framework entitles every person to active, free, and meaningful *participation*, contribution, and enjoyment of civil, economic, social, cultural, and political development in which human rights and fundamental freedoms can be realised. The realisation of human rights and good governance includes a wider range of actors than just the public administration and those citizens who are immediately concerned. For example, all stakeholders should be consulted and welcomed to actively engage in the planning of river basins and water and sanitation services. Participation also refers to the possibility for people to access information at each stage of a project cycle and to be provided with informed, timely and meaningful input so as to influence decisions at various levels. There must be sufficient time allocated for collecting information, reflecting, and providing input, with particular consideration given to the elderly, people with disabilities and other groups with special needs. The limited capacities of NGOs and community-based organisations should be recognised. All those with legitimate interests in the outcome of a decision should be given equal possibilities to participate. Different means and channels should be established through which the concerned parties can have a voice, be encouraged to express themselves and influence processes in the political, economic, and social spheres.

Participation can take place directly or through intermediary organisations. Public officials and other decision-makers need to be responsive to engagement, whatever form it takes. Non-participation is characterised by manipulation and tokenism; stakeholder involvement is then only symbolic. The different degrees of participation and inclusion can be measured as a continuum or a ladder. Giving clear and timely access to information would be the lowest rung, followed by customers' complaints and redress mechanisms. Next, public consultation would enable stakeholders to voice their views. Better still is to invite those concerned to be strategic partners, whereby experiences and insights impact decision-making early on. At the highest rungs of the ladder, participation is exercised so that decisions are delegated, and control is handed over to the stakeholders themselves.

Transparency can be understood as a combination of factors, such as the level of openness of governance processes; free and easy access to information; the extent to which public-sector affairs are disclosed and available in writing (or other suitable formats); and the extent to which decision-making processes, mechanisms and outcomes are open to scrutiny by citizens, the media and others.

As is the case with large dam projects such as the PMP, there is often a high degree of technical complexity in water-related decisions, which can lead to information asymmetry between decision makers, planners, executing authorities, non-state actors, and the people affected. The *Manual on an HRBA to IWRM* (Cap-Net, SIWI et al., 2017) recommends that terms and

conditions for such projects need to be available and comprehensible for those concerned. Transparency as a principle for the rule of law, HRBA and good governance comprise all the means of simplifying citizens' and stakeholders' access to information that can be envisaged. To this end, analyses should examine what methods and channels are most suitable to enable insights, spread messages and raise awareness about rights and freedoms. It is advisable to complement text and written publications with infographics and, when suitable and/or necessary, with oral information channels. Visual presentations can take many forms, such as pictures, drawings, maps, icons, and comic strips on walls. Other ways of representing and revealing complex data to attain the desired levels of clarity and attention are to use TV soap operas, radio broadcasting and street theatre. A combination of these may be required for a successful outreach campaign, especially to individuals and groups that are not (fully) literate.

The Manual also observes that when States have procedural obligations to make environmental information public and to give full and equal access to information—for instance, when an EIA is required—it would be woefully insufficient to keep a single record of the relevant evaluation documents in a room with limited access hours.

- States should adopt a national water strategy and plan of action that clearly identifies the priorities between different user groups, and establishes accountability mechanisms at appropriate levels (CESCR, 2002).
- An HRBA informs development and water management by prioritising, in the allocation of water, among competing uses and user groups.

Box 2: Human rights and water.

3.4 Interlinkages with the SDGs

Prior to the HRBA, law traditionally played a minor role in international development assistance (Broberg and Sano, 2018). Now, the approach builds on how human rights commitments and obligations are interlinked and connected to laws, treaties, and systems at the national, regional, and international levels. Complaints mechanisms, courts and human rights bodies, General Comments and other so-called soft law are all vital parts of the system.

The international human rights framework has subsequently gained ground in equal measure, above all with the acknowledgment of the human right to safe drinking water in 2010 (see Box 2) and the development of human rights obligations relating to the enjoyment of a safe, clean, healthy and sustainable environment.

The HRBA also calls attention to commitments such as the UN's 2030 Agenda (adopted in 2015 together with 17 Sustainable Development Goals (SDGs) and 169 targets and indicators) as well as the Paris Agreement on climate change from the same year. Several SDGs and targets are directly relevant to consider when analysing the PMP, with respect to how and what measures are taken to meet the objectives in question. The SDG framework puts demands on states but also on other actors in society, including the corporate sector, to report on their contributions and achievements.

Hydropower is closely linked to SDG 7, clean energy, and Target 7.1: By 2030, increase substantially the share of renewable energy in the global energy mix. Hydropower from dams can contribute to other SDGs as well, including those for water (SDG 6), resilient infrastructure (SDG 9), and climate action (SDG 13). Further, dams provide a synergetic approach to respond to the Water–Energy–Food Nexus, and in particular to attain zero hunger (SDG 2) through irrigation of crops.

3.5 Applying the HRBA: Method for the PMP analysis

As suggested by the WCD and the UN Common Understanding as well as development cooperation agencies and scholars, an HRBA analysis should build on an examination of issues at the heart of the situation; a context analysis of the human rights claims of rights-holders and the corresponding obligations of duty-bearers as well as the immediate, underlying and structural root causes of the non-realisation of rights. In this report, the steps have been structured as follows:

1. Legal mapping: identification of key applicable human rights issues that are valid in the context of the PMP, and corresponding obligations (section 3.6);
2. Stakeholder analysis: identification of what duty-bearers and (groups of) rights-holders, including vulnerable groups that should be prioritised, are involved (section 3.7);
3. Assessment of national implementation towards the realisation of the applicable rights (section 3.8);
4. Evaluation of how the rights and duties have been applied in the case of the PMP, implying analysis of the actual status of the human rights in context (section 3.9).

3.6 Legal mapping: Key human rights issues

The applicable human rights and fundamental freedoms, and their corresponding obligations of relevance to large-scale dam constructions like the PMP range in scope from the broad ones, such as the principle of non-discrimination (which includes the duty to ensure the equal right of women and men, elderly and indigenous peoples) and the rights to information and participation in public affairs, to specific ones such as the right not to be forcibly evicted (which is derived from the right to adequate housing). These interconnected rights are laid down in, or derived from, treaties, policies, and declarations by international organisations. Foremost are the 1948 Universal Declaration of Human Rights (UDHR), ICESCR, the ICCPR and related covenants and conventions adopted thereafter. The ICCPR is binding on the 172 UN Member States that are parties to and have both signed and ratified them. The ICESCR has 169 parties.

States are also bound by rules that are regarded as international customary law, which refers to established state practice in a given field that has not been codified. The International Court of Justice lists 'custom' among the generally recognised sources of international law in disputes and relations between distinct nation states. This is relevant with respect to transboundary EIAs—see *the Pulp Mills case* (sub-section 3.6.1.2).

Two different types of principles, rights and obligations can be identified in international law:

- a) those of substantive nature that are (to be) explicitly incorporated in national laws or regulations and establish general obligations for Governments and/or citizens; and
- b) the procedural ones whose exercise supports better environmental decision-making.

Examples of the former are the rights to life, health, and property; examples of the latter are the rights to freedom of expression, to information, to participation and to effective remedies (OHCHR, 2012). Both types are of interest with respect to the PMP.

Each State Party to the ICESCR is bound to “take steps ... to the maximum of its available resources, with a view to achieving *progressively* the full realization” of the rights in this Covenant (Art 1.1, emphasis added). Nonetheless, some obligations are of immediate nature. Among these are that States can under no circumstance discriminate on grounds such as race, sex, language, origin, or political opinion, for instance in the allocation of available resources such as water or compensation for dislocation. Another core obligation concerns the ensuring of access to the minimum essential amount of water to prevent disease, and details with regards to water facilities and services (CESCR, 2002, para. 37).

The normative content of the rights and obligations under the right to life, the right to adequate food, the right to safe drinking water, etc., are pronounced in *General Comments* provided to push states parties from commitment to streamlined compliance. Issued by the UN Committee on Economic, Social and Cultural Rights (CESCR) and other Treaty Bodies, such Comments contain general guidance on State duties as well as prominent definitions of the substantive provisions and attributes. Importantly, the Comments as such are regarded as ‘soft’ law and point out the legal obligations (the ‘musts’) as well as containing authoritative but non-binding interpretations (what ‘should’ be done or refrained from).

Another example of non-binding soft law that is relevant to large-scale infrastructure projects is the *Declaration on the Right to Development* adopted by the UN General Assembly in 1986 (mentioned above). Yet another of direct relevance to the PMP is the *Basic principles and guidelines on development-based evictions and displacement* (OHCHR, 2007) that serves as an international standard to guide governments and non-governmental bodies in providing assistance and protection to those affected by arbitrary displacement, for instance in cases of large dams. These guidelines collate binding obligations of States before, during and after an eviction, alongside recommendations for what should be done above and beyond the legal requirements. They are available online in 23 languages to enable wide usage.

3.6.1 Procedural rights and corresponding duties

The *right to information* is critically interlinked to the exercise of other rights, notably that of *participation*. This guarantees any person a right to take part in the conduct of public affairs, at all stages of development projects, and to be entitled to have adequate access to relevant information held by public bodies, including entities that are carrying out public functions (Art 19.2 and 25 ICCPR). States are required to ensure that these rights are given effect in their domestic law and that remedies are available if those rights are violated.

3.6.1.1 The right to adequate housing; the right not to be forcibly evicted

A vast number of procedural rights and duties of relevance to the PMP are linked to forced and so-called development-based evictions. A report of the Special Rapporteur on Adequate Housing as a Component of the Right to an Adequate Standard of Living provides basic principles and guidelines on development-based evictions and displacement. Here, it is explained that such evictions include coerced or involuntary displacements that are planned or conducted under the pretext of serving the public

good, linked to development and infrastructure projects including large dams (OHCHR, 2007). As mentioned above, those guidelines are not binding.

The human *right not to be forcibly evicted* is derived from the *right to adequate housing* (Art 25.1, UDHR), the *right not to be subject to arbitrary or unlawful interference with one’s home* (Art 17, ICCPR), and the *right to an adequate standard of living*, including the *rights to housing* (Art 11.1, ICESCR). Other international law instruments, such as the *Convention on the Rights of the Child*, contain similar provisions. The UN has adopted a number of (non-binding) guidelines and standards by which to evaluate instances of forced eviction, including the *General Comment No. 4 on the Right to Adequate Housing* (1991) wherein the Committee on Economic, Social and Cultural Rights states that all persons should possess a degree of security of tenure which guarantees legal protection against forced eviction. There is also *General Comment No. 7 on the right to adequate housing: forced evictions* (CESCR, 1997), a Fact Sheet (OHCHR & UN-Habitat, 2009) and the above-mentioned Basic principles and guidelines on development-based evictions and displacement (OHCHR, 2007).

It should be noted that ‘forced’ evictions means “permanent or temporary removal against their will of individuals, families and/or communities from the homes and/or land which they occupy, *without* the provision of, and access to, appropriate forms of legal or other protection” (CESCR, 1997 para 3, emphasis added). In other words, the *prohibition* on evictions does not, per definition, apply to evictions carried out by force *in accordance with* the relevant principles of international law. The *Basic principles and guidelines* aim at providing a practical tool to assist States and agencies in developing policies, legislation, procedures and preventive measures to ensure that forced, unlawful evictions do not take place, and to provide effective remedies to those whose human rights have been violated, should prevention fail.

The procedural human rights in the field involve the entitlements to information and participation in housing-related decision-making at the national and community levels. This requires States to explore all feasible alternatives before carrying out any eviction so as to avoid, or at least minimise, the need to use force. When forced evictions are carried out as a last resort, those affected must be afforded effective procedural guarantees, which may have a deterrent effect on planned evictions. The General Comment No. 7 (CESCR, 1997) stresses that these should include:

- An opportunity for genuine consultation with those affected,
- Adequate and reasonable notice for all affected persons prior to the scheduled date of eviction,

- Availability of information on the proposed eviction and, where applicable, on the alternative purpose for which the land is to be used, to be made available in reasonable time to all those affected,
- Availability of legal remedies and legal aid to those in need to be able to seek judicial redress.

Because of the historical rate of forced evictions due to dams and other large-scale infrastructure projects and the potential to cause gross violations of human rights for large groups of people, many other (non-binding) guidelines and standards pertaining to forced eviction, displacement and resettlement have been published. Already by 1992, the OECD's Development Assistance Committee published Guidelines for Aid Agencies on Involuntary Displacement and Resettlement in Development Projects. The Inter-American Development Bank followed with guidelines in 1999. In 2012, the World Bank and the Asian Development Bank adopted performance standards on project-related land acquisitions and involuntary resettlement to limit the scale of human suffering associated with physical displacement as well as with economic displacement (loss of assets or access to assets that leads to loss of income sources or other means of livelihood) and Good Practices on involuntary resettlements, respectively.

3.6.1.2 Environmental Impact Assessment

Of direct importance to the procedural dimensions, and to the scoping, planning and facilitation of public participation in decision-making concerning large dams, is the undertaking of an *Environmental Impact Assessment* (EIA) in parallel with a Social Impact Assessment (SIA). As stipulated under principle 17 of the Rio Declaration (1992), “environmental impact assessment, as a national instrument, shall be undertaken for proposed activities that are likely to have a significant adverse impact on the environment and are subject to a decision of a competent national authority”. The requirement to conduct EIAs for certain activities on the national level is a binding obligation of the Parties to the *Convention on Biological Diversity*. Legislation and practice that incorporate EIA requirements vary around the world, but fundamental components of an EIA would necessarily involve taking into account inter-related socio-economic, cultural and human-health impacts, both beneficial and adverse. Alternatives for a project, including the zero (baseline) variant—i.e., the no-action or not carrying out the project at all—should be properly examined and described.

Additionally, information about stakeholder concerns and socio-environmental issues, as well as efforts to mitigate impacts on those concerned, are often collected through targeted consultations with the people at stake. The need for public hearings as well as disclosure of

information about the process and steps of the decision-making are often found in the national regulatory requirements for an EIA/SIA.

In terms of human rights, the Committee on Economic, Social and Cultural Rights has encouraged States to consult with stakeholders in the course of environmental impact assessments, and has underlined that before any action is taken that interferes with the right to water, the relevant authorities must provide an opportunity for “genuine consultation with those affected” (CESCR, 2002, para. 56).

A binding treaty that addresses extra-territorial impacts of a planned project is the *UNECE Convention on Environmental Impact Assessment in a Transboundary Context* (Espoo Convention) of 1991. This European convention is open for signature by UN Member States; neither India nor Nepal are signatories. For decades, more widely reaching rules on EIAs for transboundary activities were merely an ideal with no legal standing in customary law. The necessity to require this type of assessment also for transboundary projects, particularly those that involve a shared river, was increasingly felt, though (Knox, 2002). A change came in 2010 with the precedent in the case *Pulp Mills on the River Uruguay*.

Here, the International Court of Justice recognised that “the obligation to protect and preserve [...] has to be interpreted in accordance with a practice, which in recent years has gained so much acceptance among States that it may now be considered a requirement under general international law to undertake an environmental impact assessment where there is a risk that the proposed industrial activity may have a significant adverse impact in a transboundary context, in particular, on a shared resource” (para 204).

However, the significant question after the Uruguay case is no longer the obligation *to do* an EIA, but *what* this entails. The actual process employed for carrying out a prior assessment is not set out in any international instrument, and in the 2010 case the International Court of Justice consequently found that the scope and content of an EIA are not specified by this body of general international law. Therefore, it laid down, it is for each party to determine on a case by case basis what is required, “having regard to the nature and magnitude of the proposed development and its likely adverse impact on the environment as well as to the need to exercise due diligence” (para. 205). There is thus no hard, substantive prohibition on causing transboundary harm, nor are there procedural rules that, for instance, apply the principle of non-discrimination to enable foreign residents access to the domestic EIA hearings (Knox, 2002). Further, and with vast implications for human rights aspects and the PMP, Boyle (2011, para. 216) stresses that the Court categorically held that “no legal obligation to consult the affected populations arises” [from the international law].

In sum, since this judgment, the “[n]ear universal embrace of *the principle of EIA* does not answer the question of *what* customary international law requires from that EIA” (Bratspies, 2018: 134)(emphasis added).

3.6.1.3 *The right to safe drinking water*

General Comment No. 15 on the right to water (CESCR, 2002) clarifies that water must be adequate for human dignity, life, and health, which in turn includes certain entitlements. The right of individuals and groups to participate in decision-making processes that may affect their exercise of the right to water must be an integral part of any policy, programme or strategy concerning water, at national and community levels. Individuals and groups should be given full and equal access to (seek, receive, and impart) information concerning water, water services and the environment, held by public authorities or third parties. Correspondingly, States are to respect, protect and fulfil such rights. It is also underlined that before any action is taken that interferes with the right to water, the relevant authorities should provide an opportunity for “genuine consultation with those affected” and give due attention to vulnerable groups, especially poor people and members of marginalised groups including indigenous peoples.

3.6.1.4 *Collective (procedural) rights of indigenous peoples*

Measures that may affect indigenous peoples as a group can result from projects with impacts on their rights to land, territory, and resources, including water. The human right of “all peoples” to self-determination is laid down in the ICCPR and the ICESCR (Art 1). To realise this fundamental right, it is necessary to provide indigenous peoples with opportunities to participate in decision-making and project development. The obligation for governments and companies as non-State actors to engage, consult and cooperate with (potentially) impacted communities is recognised in international law with the mechanism of Free, Prior and Informed Consent (FPIC). This principle is outlined in the 1989 International Labour Organisation (ILO) *Convention 169 Concerning Indigenous and Tribal Peoples in Independent Countries*, which is binding on the 22 countries that have ratified it. Impact assessments must therefore also be undertaken in relation to—and with—indigenous peoples concerning plans and projects affecting them, under the ILO Convention (Art 7.3). In addition, FPIC forms part of the (non-binding) 2007 *UN Declaration on the Rights of Indigenous Peoples*.

Issues remain surrounding the interpretation of indigenous peoples’ rights, in particular the right to give or withhold free, prior and informed consent. International human rights law recognises that in certain contexts

restrictions can be placed on indigenous peoples’ property rights (UNHRC, 2016). However, to be legitimate, such restrictions must be: (a) established by law; (b) necessary; (c) proportional to their purpose; and (d) non-restrictive to the peoples’ survival, see *Saramaka People v. Suriname* (Inter-American Court of Human Rights 2007). The consultations carried out shall be undertaken with the objective of achieving agreement or consent to the proposed measures. Although there is not yet any customary or other generally binding international law stipulating the procedural rights of indigenous peoples to FPIC, there does appear to be a minimal norm developing that requires consultation “in good faith” (Ward, 2011).

3.6.1.5 *Gender equality dimensions*

Rights to land, housing and property are essential to women’s equality and wellbeing. The UN High Commissioner for Human Rights recognises that laws and policies habitually prohibit women from equal access to all three of those rights. Women’s formal entitlements, access to and control over land, housing and property are a determining factor in their living conditions, especially in rural economies, and are essential to women’s and their children’s daily survival, economic security, and physical safety. Despite the importance of these rights for women and households headed by them, women still disproportionately lack security of tenure. This is often because registration of property is done in a man’s name; the father, husband, or brother (OHCHR, nd).

General Comment No. 16 (CESCR, 2005) outlines the equal rights of men and women and draws attention to the principle of non-discrimination. The UDHR establishes the right of everyone to property regardless of sex, and to the right to an adequate standard of living, including housing, and to security in the event of a lack of livelihood (Art 17.1-2, 25). The CEDAW Convention specifically requests States to undertake all appropriate measures to eliminate discrimination against rural women, and to guarantee their enjoyment of adequate living conditions, including adequate housing (Art 14.2). The ICCPR prohibits legislation or policy that would discriminate against women, including in the fields of property, housing, and land rights (Art 26); the ICESCR guarantees the right to adequate housing (Art 11).

Concerted efforts have been made by a range of UN bodies to address the issue of women’s equal ownership of, access to and control over land, and the equal rights to own property and to have adequate housing. This has led to an expanded definition of the right to adequate housing that enables greater elaboration of the elements of ‘adequacy’ as related to women’s lives and experiences. Of major importance here is that forced evictions are often associated with physical and psychological injuries to those affected, with particular impact on women

and other vulnerable groups. The Basic principles and guidelines on development-based evictions (OHCHR, 2007) have a strong gender perspective, recommending that States should take immediate measures aimed at conferring legal security of tenure upon those persons, households and communities currently lacking such protection, including all those who do not have formal titles to home and land. Such measures are of far-reaching importance to ensure that property rights apply equally to women and men, seeing that women (and members of marginalised groups) often lack formal title to home and property under domestic law.

Aird (2001) offers a reminder that some governments still recognise only male heads of household as legitimate landowners, thereby denying women compensation when evicted or when land is expropriated. There is also a risk in indigenous communities where women enjoy *user* rights over land but not ownership rights, and governments do not provide these women with compensation for flooded lands, thus introducing an intersectional consequence where race and gender are overlapping systems of discrimination. Nepal and India still have deep-rooted patriarchal norms that may prevent women from making critical decisions with respect to landed property.

3.6.2 Substantive rights and corresponding duties

Several broad rights apply in the case of development-based evictions, such as the right to the highest attainable standard of health (Art 12, ICESCR), which obliges States not to lower the standards of health care as well as to refrain from any action which might increase risks to health. The right to work (Art 6, ICESCR) protects the opportunity of everyone to gain a living by work which is freely chosen and accepted. In the following, the key rights and obligations of interest to the PMP are mapped.

3.6.2.1 *The right to adequate housing; the right not to be forcibly evicted*

As with procedural rights, the PMP gives rise to substantive rights and obligations linked to evictions which, in turn, fall under the human right to adequate housing. UN-Habitat (2011) summarises the potential consequences of evictions, through the different phases of the process, as including:

- loss of home, investments and personal possessions;
- violence, physical abuse, threats, harassment and unlawful detention;
- loss of social ties, culture and familial identity;
- economic hardship, loss of employment and economic livelihood;

- heightened food insecurity;
- relocation to communities without adequate resources like clean drinking water and basic health care; and
- interruption of education.

Development-based and other forced evictions are generally understood to also violate a host of other rights including civil and political rights, such as the right to health, education, food, employment, adequate housing, safe drinking water and sanitation, rights to non-discrimination and equality, the right to privacy, cultural rights, self-determination, the right to life, to freedom of expression and assembly, due process and access to justice, and the right to freedom from arbitrary detention. In addition, the rights of indigenous people and subsistence farmers need to be protected.

The right to adequate housing under ICESCR Art 11.1 involves the protection against forced evictions but also against the arbitrary destruction and demolition of one's home as well as the freedom to choose one's residence and to determine where to live. The obligation to respect the right to housing requires that States should refrain from carrying out forced evictions and demolishing homes. States are further obliged to refrain from any action which lowers or has a negative effect on the standard of living of right-holders as well as to take all steps to improve their standard of living. If the State adopts a retrogressive measure, i.e., one that weakens the protection of the right to adequate housing, it will have to demonstrate that it carefully weighed all the options, considered the overall impact on all human rights of the measure and fully used all its available resources (OHCHR, 2009).

As duty-bearers, States must refrain from violating human rights domestically and extraterritorially. The obligation to protect requires States to prevent third parties, including corporations or international financial institutions operating within the State's jurisdiction, from interfering with the right to adequate housing, including not to carry out forced evictions.

The Basic principles and guidelines on development-based evictions and displacement (OHCHR, 2007) are of particular relevance in the context of the construction of large dams. In sum, they outline that

- All persons, groups and communities have the right to resettlement, which includes the right to alternative land of better or equal quality and housing that must satisfy the criteria for adequacy: accessibility, affordability, habitability, security of tenure, cultural adequacy, suitability of location, and access to essential services such as health and education (Principle 16);
- States must adopt legislative and policy measures prohibiting the execution of evictions that are not

in conformity with their international human rights obligations (Principle 22);

- Comprehensive and holistic impact assessments should be carried out prior to the initiation of any project that could result in development-based evictions and displacement. ‘Eviction-impact assessment’ should also include exploration of alternatives and strategies for minimizing harm (Principle 32);
- Planning and development processes should involve all those likely to be affected (Principle 37);
- States should explore fully all possible alternatives to evictions (Principle 38);
- Competent authorities shall ensure that evicted persons or groups have safe and secure access to:
 - (a) essential food, potable water and sanitation;
 - (b) basic shelter and housing; (c) appropriate clothing;
 - (d) essential medical services; (e) livelihood sources;
 - (f) fodder for livestock and access to common property resources previously depended upon; and
 - (g) education for children and childcare facilities (Principle 52);
- Identified relocation sites must fulfil the criteria for adequate housing according to international law (Principle 55);
- When eviction is unavoidable, States must provide or ensure fair and just compensation for any losses of personal, real or other property or goods (Principle 60).

3.6.2.2 *The rights to safe drinking water and sanitation*

The human right to water is stipulated under the 1979 *Convention on the Elimination of All Forms of Discrimination Against Women* and the 1989 *Convention on the Rights of the Child*. The UN General Assembly and the Human Rights Council in 2010 recognised it in its own right as derived from the right to an adequate standard of living and the right to the highest attainable standard of health in Arts 11.1 and 12.1, respectively, of the ICESCR. The General Comment No. 15 sets out criteria in terms of how the water access and availability for each person must be sufficient and continuous, affordable, etc. It should be stressed that the substantive right involves safe drinking water for personal and domestic uses, which include drinking, personal sanitation, washing of clothes, food preparation and personal and household hygiene.

Freedoms under the right to safe drinking water include protection against interference with access to existing water supplies, especially to traditional water sources. This corresponds with the duty to refrain from interfering directly or indirectly with the enjoyment of the right to water. The State’s obligations are immediate with regard to ensuring that significant numbers of people are

not deprived of the minimum amount of safe drinking water and access to adequate sanitation to prevent disease, which is in turn linked to the right to the highest attainable standard of health. States must also, under the obligation to ‘fulfil,’ progressively and to the extent allowed by their available resources, extend water and sanitation services to vulnerable and marginalised groups (OHCHR, 2010b).

3.6.2.3 *The right to a healthy environment*

The human rights and environment protection nexus have come to the forefront recently, in particular with the linkages to climate change. It is increasingly recognised that the unsustainable management and use of natural resources, the resulting loss of biodiversity and the decline in services provided by ecosystems may interfere with the enjoyment of a safe, clean, healthy and sustainable environment, and that environmental damage can have negative implications, both direct and indirect, for the effective enjoyment of all human rights. Interlinked with this is the addressing of issues relating to land rights.

The right to a safe, clean, healthy, and sustainable environment is yet regarded an ‘emerging’ autonomous human right, but the Special Rapporteur on the subject has clarified that States already have obligations relating to the environment (UNHRC, 2013). These include procedural obligations to assess environmental impacts on human rights and to make environmental information public, to facilitate participation in environmental decision-making, and to provide access to remedies for environmental harm.

A very serious aspect pertains to environmental human rights defenders fighting issues facing the poor in connection to dams. The plights and human rights of communities affected by dams include displacement, environmental damage and/or accidents when dams fail. A case in point is the dam rupture in Brumadinho, Brazil January 2019, following upon which a human rights defender and regional coordinator for a movement of people affected by dams in the country was killed.

3.6.2.4 *The right to adequate food*

The human right to food expects that individuals meet their own needs, through their own efforts and using their own resources. To be able to do this, a person must live in conditions that allow him or her either to produce food or to buy it. To produce his or her own food, a person needs land, seeds, water, and other resources, and to buy it, one needs money and access to the market (OHCHR, 2010a). All these components are at risk in the face of large-scale dam projects, even though these often aim to benefit food security through irrigation measures and flood control.

In the General Comment No. 15, the Committee on Economic, Social and Cultural Rights notes the importance of ensuring sustainable access to water resources for agriculture to realise the right to adequate food. Attention should be given to ensuring that disadvantaged and marginalised farmers, including women farmers, have equitable access to water and water management systems, including rainwater harvesting and irrigation technology. As is the case with indigenous peoples, Art 1.2 of the ICESCR provides that a people may not “be deprived of its means of subsistence” and States parties should ensure that there is adequate access to water for subsistence farming.

In terms of obligations, States should further ensure public institutions, including State-run enterprises, do not undermine people’s access to food through, for example, forced evictions. States have to protect individuals’ enjoyment of the right to food against violations by third parties, for instance, by destroying the ancestral lands of indigenous peoples to clear the way for dams.

3.6.2.5 *The right to education*

Education is vital to socio-economic development. Among the impacts and consequences of forced evictions and development-based displacement are interruption of education and lost educational opportunities. The right to education (Art 13, ICESCR) obliges states to maintain the level of existing educational institutions and guarantee equal access to these institutions. It is especially important to focus on the education of girls as participating in household chores such as fetching water, cleaning latrines or garbage disposal tend to keep girls out of school and contribute to hygiene-related diseases.

3.6.2.6 *Collective (substantive) rights of indigenous peoples*

As part of their right to self-determination, indigenous peoples have the right to develop and maintain their cultures (Art 27, ICCPR, Art 15 ICESCR). According to Art 1.2, ICESCR, “[a]ll peoples may, for their own needs, freely dispose of their natural wealth and resources without prejudice to any obligations arising out of international economic cooperation ... In no case may a people be deprived of its own means of subsistence”, which underscores the right to own, use and develop and control natural resources including water resources. The General Comment No. 15 clarifies that States parties should ensure that there is adequate access to water for securing the livelihoods of indigenous peoples, and is a reminder that indigenous peoples’ access to water resources on their ancestral lands is protected from encroachment and unlawful pollution. States should

provide resources for indigenous peoples to design, deliver and control their access to water. It also stresses that the duty to respect the right to water involves States refraining from interfering with customary or traditional arrangements for water allocation.

3.7 Stakeholder analysis

The second step of the human rights-based approach analysis continues by identifying rights-holders endowed with freedoms and entitlement, and duty-bearers who constitute actors who may be causing or supporting the issues at stake, and who have responsibilities in relation to the rights-holders.

While States bear the principal obligation for realizing human rights, the HRBA requires other parties, including international financial and other institutions or organisations, transnational and other corporations, to take responsibility to ensure respect for the rights enshrined in binding treaties and general principles of international public law.

Box 3: Non-State parties.

3.7.1 Duty-bearers

State Governments are the primary duty-bearers bound, as UN Member States, by international human rights law. General obligations involve the duty to protect, respect, fulfil and promote human rights and to abstain from human rights violations. State representatives and proxies of the administration can also be placed under this category when given authority to lead and rule distinct sectors or issues. Non-State actors (that may include, but is not limited to, businesses, private actors, development organisations, non-governmental organisations) are considered ‘moral’ duty-bearers with obligations to respect human rights and can, under certain conditions, assume legal responsibilities (see below).

In the case of the PMP, India and Nepal are both federations with partially self-governing states, provinces, and other administrative tiers under a central government. Under such multi-level governance systems, powers will be decided by jurisdiction over specified questions and geographical areas.

WAPCOS Ltd. is a public sector undertaking under the Ministry of Jal Shakti of the Government of India and thereby represents the state. Importantly, the PDA has been constituted by the two parties of the Mahakali Treaty.² The Authority’s terms of reference³ determine

² <https://iea.uoregon.edu/treaty-text/1996-mahakaliriverentxt>.

³ <http://mowr.gov.in/sites/default/files/ToRs.pdf>.

who is in charge of project-related matters and stipulate that matters not covered by them shall be settled by mutual agreement of the two Governments. The Treaty and the PDA terms of reference are both silent on procedural questions such as undertaking an EIA, meaning that duty-bearing obligations remain with the State on whose territory a human rights violation takes place or can potentially occur. The domestic law on EIAs (see below) in India appoints state-level Pollution Control Boards as the authority handling public hearings. In Nepal, the Department of Electricity Development and the Ministry of Water Resources are appointed to play comparable roles.

3.7.2 Private sector's responsibilities to respect human rights

While national governments constitute the primary duty-bearers, the private sector often plays fundamental roles in development projects. Where they act as a proxy for the state, the same obligations apply to them as to State Parties.

Under the *UN Guiding Principles on Business and Human Rights* (OHCHR, 2011), a standard of expected corporate conduct endorsed by the Human Rights Council in 2011, businesses are to avoid infringing the rights of others and States are to protect against human rights abuses by business through appropriate law, policy, regulation and adjudication. The Guiding Principles also lay down the independent corporate responsibility to respect indigenous peoples' rights as recognised in international human rights law.

Companies that are contracted by the Indian and Nepali governments in relation to the PMP are thus expected to act with due diligence and take seriously their responsibilities to respect human rights. As part of their duty to protect against business-related human rights abuse, the two states involved must take appropriate steps to ensure that when abuses occur, those affected have access to effective remedy.⁴ The companies risk being seen as complicit in human rights violations, if they act in contravention with expected conduct linked to responsibilities to respect human rights under the UN Guiding Principles.

Further analysis of the private sector's conduct lies outside the scope of this report but will be of importance should the project move ahead with small and large firms involved in building, operation and maintenance of the dams and related infrastructure.

⁴ Remedies for human rights violations can range from direct monetary compensation (for lost wages and/or expenses, but also for injury to dignity, feelings and self-respect), to ways of repairing injustice and damages by orders to take steps to address discrimination.

3.7.3 Rights-holders

Every human being is inherently (by birth) a rights-holder enjoying universal human rights that must be guaranteed. With indigenous peoples, the community itself is the collective holder of the specific rights valid to them.

The PMP concerns rights and entitlements of aggrieved parties. Based on the socio-economic surveys and field studies, maps and other inventories made in connection with the project's EIAs and Social Impact Assessment (SIA), the project divides these into two main groups of village residents:

1. Those who will be (forcibly) evicted because their house and entire land holding will be submerged,
2. Those who are considered to be partially affected because some portion of their land will be submerged and hence expropriated.

In Group 1, an estimation based on numbers from the available sources points to almost 60,000 people risking eviction. The exact number of individuals and families cannot be established, as the different documents and other information available are not consistent and the SIA was not conducted as a joint study but draws partly on an earlier Nepali EIA (see below for details).

People in group 2—the number of whom is much more uncertain than group 1—are expected to be able to stay in their houses, but their human rights may be violated if fair compensation is not awarded to them for the land that will be expropriated.

However, there is also a third group, which is not defined in the EIAs: Those in downstream areas whose livelihoods may or will, with certainty, be affected.

In the DEMP report, the reservoir area is held to affect Darchula and Baitadi Districts of Nepal and adjacent districts are marked as affected on maps (Shah Consult, nd: 2-1). In the context analysis on the Mahakali River (Bhattarai and Bastakoti, 2018), it is suggested that the more southern-lying Dadeldhura District is also likely to be (partially) submerged.

3.7.4 Priority groups

The mapping of vulnerable and marginalised populations is key for the HRBA. Identification of groups whose needs should be prioritised forms part of the analysis of power positions among rights-holders in relation to duty-bearers, but it is primarily important to assess gaps in the realisation of the human rights in question. The General Comment No. 7 on the right to adequate housing (CESCR, 1997) observes that women, children, youth, older persons, indigenous people, ethnic and other minorities, and other vulnerable individuals and groups,

all suffer disproportionately from the practice of forced eviction. Women in all groups are especially vulnerable given the extent of statutory and other forms of discrimination which often apply in relation to property rights (including home ownership) or rights of access to property or accommodation, and their particular vulnerability to acts of violence and sexual abuse when they are rendered homeless. The non-discrimination provisions of international law impose an additional obligation upon Governments to ensure that, where evictions do occur, appropriate measures are taken to ensure that no form of discrimination is involved.

Both India and Nepal have indigenous peoples (*adivasis*, referred to as Scheduled Tribes in domestic legislation) in the PMP area. On the Nepali side, they belong to the Majhi tribe, who traditionally live along the banks of rivers and streams and make a living from fishing and ferrying people. According to a household survey in Nepal in 2012, referred to in the DEMP report, on average three per cent of the surveyed households in Nepal are operationally landless (Shah Consult, nd: 4-57). It is unclear whether this includes indigenous peoples who practice seasonal migration and spend only part of the year by the Mahakali River, otherwise living higher up in the mountains.

3.8 Recognition and implementation of valid human rights in domestic law

India ratified the ICESCR and the ICCPR in 1979; Nepal did the same in 1991. The Convention on the Rights of the Child was ratified in 1990 by Nepal and in 1992 by India; the Convention on the Elimination of All Forms of Discrimination against Women (CEDAW) was ratified in 1991 by Nepal and in 1993 by India. Both countries are Parties to the Convention on Biological Diversity (ratified by Nepal in 1993 and by India in 1994) but neither has signed the UNECE Convention on Transboundary EIAs. Nepal ratified the ILO Convention 169 in 2007 while India has not yet signed it; this means that only Nepal is legally bound by the FPIC principle to ensure the consent of affected indigenous peoples. The countries have recognised the human rights to safe drinking water and sanitation on several occasions; they both voted in favour of General Assembly resolution 64/292 of July 2010 and were members of the Human Rights Council when it adopted without a vote resolution 15/9 of September 2010.

As regards the countries' *implementation* of their binding obligations under international human rights law, certain procedures are in place that indicate where Member States are in terms of how they respect, protect, and fulfil applicable rights. The *UN Human Rights Council* is mandated to strengthen human rights worldwide and

is helped in doing so by the *Universal Periodic Review* of Member States' overall compatibility with the applicable national (domestic) legal provisions with international human rights law. Recommendations are subsequently made, based on fact-finding missions, country mission reports, Special Rapporteurs' official visits and other investigations that evaluate the human rights situation in Member States. The latest review of Nepal was conducted in 2015, and of India in 2017.

Of particular relevance here is that in the Universal Periodic Review of *Nepal*, the Committee on Economic, Social and Cultural Rights recommends reducing poverty, particularly among the most marginalised and disadvantaged groups, and facilitating access to and ownership of land, and access to income-generating activities for those groups. Concern is expressed at the lack of a comprehensive housing policy and at reports of forced evictions. The review further recommends Nepal to enact legislation specifying the circumstances and safeguards under which evictions could take place and to provide victims of forced evictions with alternative housing or adequate compensation. The country team also notes that those living in poverty do not have access to safe drinking water and adequate sanitation facilities. Finally, it observes that the Declaration on the Rights of Indigenous Peoples and ILO Convention No. 169 should function as benchmarks to address the many human rights challenges faced by indigenous peoples, and recommends that Nepal complete the process of recognizing indigenous peoples whose claims were under consideration; guarantee their right to own, use and develop their ancestral lands; and seek their free, prior and informed consent before any development project (UNHRC, 2015). No official country visits to Nepal have yet been made by any UN Special Rapporteurs.

The report on the Universal Periodic Review of *India* expresses concerns at the relaxation of norms for EIAs and application procedures under the Forest Conservation Act. It notes that according to the Special Rapporteur on adequate housing, India has the largest number of urban poor and landless people in the world. Nonetheless, the report praises the so-called Housing for All scheme as a step toward realization of the right to adequate housing for hundreds of millions of vulnerable people. The review also points to how the Committee on the Rights of the Child was concerned by the low number of people with access to safe water, sanitation and hygiene, and the widespread practice of open defecation and its negative impact on health, specifically child deaths from diarrhoea (UNHRC, 2017).

In the report on the human rights to *safe drinking water and sanitation* based on the Special Rapporteur's mission to India in 2017, it is observed that while the Indian Constitution does not explicitly mention the rights to water and sanitation, its Art. 21, on the right to life, has

been progressively interpreted by the courts to include these rights. The country has yet to enact a national law recognizing them (UNHRC, 2018).

Of direct relevance to the PMP, the *Special Rapporteur on adequate housing* observed after her mission to India in 2016 that the construction of large-scale dams and megaprojects has resulted in millions of displaced and landless people. The hardship caused by large dam construction across India must not be underestimated, especially for indigenous peoples, for whom their land is a home, a way of living and relating as a community, and of preserving culture, language, and livelihood. Flooding entire villages and forest areas has a severe impact on their rights to life and to housing and given the persistence with which it seems to happen on indigenous peoples' lands, it may also be indicative of discriminatory policies and practices. Genuine consultation with those affected, including on rehabilitation and relocation plans prior to eviction, is seldom carried out, and access to legal remedies for forced evictions appears to be scant. The majority of people forced out of rural areas or ancestral lands have little choice but to go to urban centres where, as newcomers, they find themselves living in dire conditions and inadequately housed. Among the given recommendations is that India needs an overarching, visionary and coherent piece of legislation based on human rights; a national housing law that aims to address growing inequalities and offers a long-term road map is also essential for meeting India's international commitments to implementing the 2030 Agenda (UNHRC, 2017b).

Others have also found that in India, forced evictions and displacement are not uncommon practices used to advance the economic development agenda, despite the fact that the *Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act* of 2013 requires social and environmental impact assessments prior to acquisitions and that rehabilitation and resettlement of affected households are ensured in case of eviction (Walicki and Swain, 2016). Additionally, the government's policies at the national level recognises the importance of social equity and inclusive growth, particularly for people whose livelihoods are inextricably linked with land-based resources. The *Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act* of 2006, for instance, seeks to protect the rights of communities that need access to forests for livelihood (Banerjee, 2014).

As mentioned, India's Constitution contains a provision on the right to life (Art. 21), which has been interpreted broadly by the Supreme Court to include the right to adequate housing, the right to an adequate livelihood, and the right to be free from forced eviction. In one case about demolition of slum clusters, (*see Sudama Singh and others v. Government of Delhi* 2010) the High Court of Delhi referred to the international human rights law,

including the *Basic principles and guidelines on development-based evictions and displacement* from 2007, to lay down that an eviction should not take place without the provision of alternative land and housing and that those being evicted should not be placed in a worse situation after eviction (prohibition against retrogression).

3.8.1 EIA and public consultation provisions under Indian and Nepali law

EIAs have been mandatory in *India* since 1994. As currently stipulated in the 2006 *Notification* under the *Environment (Protection) Rules*, 1986, public consultation is the part of the process by which the concerns of local affected persons and others who have credible stakes in the environmental impacts of a major activity are ascertained with a view to taking into account all the material concerns in the project or activity design as appropriate. This is to include a public hearing at the site or in its close proximity, arranged by the concerned State Pollution Control Board in a systematic, time-bound and transparent manner ensuring the widest possible public participation. The Notification further requires that “[a]fter completion of the public consultation, the applicant shall address all the material environmental concerns expressed during this process and make appropriate changes in the draft EIA”.

In *Nepal*, EIAs were initiated in the early eighties and are mandatory under the *National EIA Guideline* of 1992. They must, under the *Environment Protection Act and Environment Protection Regulation*, in force since 1997, be approved by the Ministry of Environment, Science and Technology. A special manual for public hearings in the EIA process for hydropower projects was published in 2004, as the result of a collaboration between the Department of Electricity Development, USAID and the International Resources Group for the US Government (DOED, 2004). In 2018 a Manual on hydropower EIAs was published with the International Finance Corporation and ICIMOD, to better align practices with international law and standards (Ministry of Forests & Environment, 2018). Accordingly, legal requirements involve the conduct of a public hearing on the proposal in the Village Development Committee or municipality where it is to be implemented, and collection of opinions and suggestions, and obtaining letters of recommendation from the concerned village committee(s) or municipalities.

The Nepali EIA provisions with sectoral guidelines and policies have been criticised for the lack of precise methods and approaches to be adopted for the preparation of EIA reports, such as methods for collecting baseline information, analysis and prediction of impacts, public hearing and consultation, implementation of mitigation, environment management and monitoring plan, etc. (Bhatt and Khanal, 2010). The *Indian* EIA provisions are also not detailed enough to enable any building

of consensus around how potential concerns are to be addressed in such a way as to minimise impact. They allow for the communication of information relating to a development project from the point of view of the authority in charge, and for raising awareness among those affected, but in no way does the EIA Notification provide for mitigation of negative socio-economic costs based on effective participation in decision-making by stakeholders.

Neither of the Nepali manuals, nor the Indian Notification, recognise the need to undertake ‘transboundary’ EIAs. On both sides should amendments be made to properly reflect the court order in the Pulp Mill case of 2010.

3.9 Assessment of application of human rights and duties in the PMP

The analysis here of how far India and Nepal have hitherto applied applicable human rights in the PMP case focuses on procedural aspects connected to the EIA; the rights and obligations linked to (the threat of) forced evictions; and the rights to water, food and education for residents who will be affected because their land (or parts of) will be submerged or otherwise affected during the building process.

3.9.1 EIA, SIA and public hearings

The requirement, under international customary law as pronounced by the International Court of Justice in the Pulp Mills case, to undertake a (transboundary) EIA for the PMP raises two main questions with respect to its fulfilment. The first relates to whether prior assessment can at all be considered done, and to whether it or they are ‘transboundary’ in nature. The second concerns its/their scope and content.

First, it is indisputable that not only one but several EIAs have been carried out, most of which before the precedent from the International Court of Justice in 2010. There is also the ‘official’ EIA published by the PDA in 2017, which contains an SIA and one part relating ‘the’ Public Hearings. There are also several earlier assessments conducted solely in Nepal. However, according to an ecosystem services assessment of likely outcomes of the PMP, published by the Institution of Environmental Sciences (Everard and Kataria, 2010), scoping for this EIA was done in 2002, and the assessments were undertaken in 2005-2008 (involving 26 national experts on the physical, biological and social environment). Hence, this work was planned and carried out prior to it being firmly laid down in international law that the assessment ought to take specific account of the particular transboundary aspects of the project.

Meanwhile, the Detailed Environmental Management Plan (DEMP) was commissioned by Nepal’s Department of Electricity Development under the Government’s Ministry of Energy, Water Resources and Irrigation. According to this, a preliminary EIA was commenced in 1994, followed by the initiation of yet another EIA study in 2005. The draft report of the latter study was approved by the Ministry of Environment, Science and Technology in 2013. Because of the scale of the project and how “sensitive impacts of [it] will be the involuntary displacement of 22,765 people from 2,926 households that are likely be submerged by the reservoirs or displaced by project structures and associated facilities”, the DEMP was to determine the direct and indirect impact zones, the identified resettlement and rehabilitation areas in Nepal, and monitoring of mitigation plans (Shah Consult, nd: 1-3). It is, however, unclear what status the DEMP has had in the planning and decision-making in either country.

When terms of reference for the EIA were on the table in a meeting of an Expert Appraisal Committee for river valley and hydroelectric projects of 2 May, 2016, this Committee reportedly recommended that an integrated EIA study covering (both) the Indian and Nepal portion be presented for obtaining environmental clearance (PDA, 2017a: 465). It is not known whether this was meant to refer to the river being a shared and transboundary resource, and that these aspects should be duly recognised. However, when discussing the matter again a year later this Committee was informed that an “EIA report for this project for the Nepal side has [already] been approved by Govt. of Nepal on 16.10.2014” (PDA, 2017a: 477). The Committee therefore determined that “considering the progress of preparation of EIA reports, setting up of the Joint Mechanism would rather delay the process of this important international project. Hence, let the Public Hearing be conducted based on the EIA report for Indian portion and the Project Proponent may approach the Ministry for final appraisal for Environmental Clearance [sic]” (PDA, 2017a: 29).

Second, as regards the scope and content of the EIA(s), this question involves what studies were conducted and where, what information ended up in the EIA report(s) and how this information was made accessible to the affected, what errors, omissions and disputable interpretations of facts were found, and finally the consultation with affected people. This relates to procedural aspects, on the one hand, and to substantive ones, on the other.

On the human right to have adequate access to relevant information held by public bodies, a (one) hard copy of the Nepali EIA sits in the Tribhuvan University Central Library in Kathmandu and can be read there but not taken out for loan, according to records of the library. The report is in the English language. The ‘official’ EIA of 2017 is accessible online, but also only in English. To

download the different parts of the latter one will need a reasonably fast internet connection.

In Nepal, the method for involving project-affected people began with field investigations and focus group discussions with locals, including women, senior citizens, disadvantaged communities and other stakeholders to brief them about the planned project and identify concerns, views and interests including on future resettlement and rehabilitation. In January 2010, six public hearings were arranged in the two districts that are today listed as affected by the PMP, but also in Dadeldhura, aiming to share information about the EIA study findings. In April 2011, a national workshop was held after the completion of the draft EIA. Concerned ministries and government departments as well as IUCN and ICIMOD were invited to provide feedback (Water Resources Consult Ltd., 2012).

According to the DEMP, a household survey was done in 2012 in Nepal (Shah Consult, nd). However, the findings of this report—which in itself contains a detailed assessment—were seemingly not taken into account in the ‘official’ SIA document. Instead, the latter is, for the Indian part, reportedly based on secondary sources and a socio-economic survey (unspecified when and how this was carried out). It further states that data for the Nepali side of the Rupaligad (regulating) dam is based on field studies in November 2016. For the Pancheshwar dam, this official EIA is based “on the findings of the EIA study conducted in 2005-06” (PDA, 2017a: 599).

In none of the English media sites nor the many blogs on the controversial project is there reference to public hearings or other types of consultation having been conducted with affected families in the Nepali districts in connection with any assessment. Considering that the law provides for public hearings at least three times in the entire period of making an EIA (in the process of scoping, during the field study for an EIA and lastly in the EIA report approval process), the absence of any mention of a single such hearing is conspicuous. Nonetheless, in the records from the public hearings in India (see below) there are a few references: When affected villagers in India remarked that information about an SIA from the Nepal side should be given, and that the EIA/SIA report of the Nepal portion was not complete, the response each time was that an “EIA Report for Nepal portion has been completed and the project has been accorded Environmental Clearance” (PDA, 2017b: 21, 89). A person on the Indian side also said that the “Nepal Government conducted public hearings in villages, why can’t this be done here?” (PDA, 2017b: 395), indicating the local residents kept each other informed across the border.

In India, three public hearings were organised in August 2017, one per district. According to the records (PDA,

2017b), many complaints were raised by villagers that the information of the project should be in Hindi, and that the announcement of the consultation meetings had not reached all those affected. The response was that as stated in the EIA notification the advertisements were to be published in one major national daily and one regional vernacular daily newspaper, and the circulation of project-related information was done according to the norms outlined in the EIA notification. Many other remarks were made to the effect that the outreach to affected people was limited in nature, and consultation was done without their complete knowledge of the studies.

It has been held by many Indian organisations and environment experts that, procedurally, the PMP hearings in India were not conducted as specified by the 2006 Notification. Among other things, the affected villages are located in very remote mountain areas and accessibility is difficult, with hardly any reach by the newspapers where public hearing notice was given. It has also been questioned why the meetings were planned for the monsoon season, when people are busy in their fields. A case in point is the third and supposedly final hearing. India’s Meteorological Department and District Disaster Management Office of Uttarakhand State forecast heavy to very heavy rains all over the state on the dates notified for the hearing and all schools were ordered to close. Such rains are known to cause landslides, damaging access roads and bridges—and made it all but impossible for the affected people to travel from their villages to participate in the public hearing (SANDRP, 2017a).

The South Asia Network on Dams, Rivers and People (SANDRP) also claims that police were deployed in and around the venue for this public hearing in such large numbers that “it seemed like a curfew zone”. The meeting room had inadequate space for the people wanting to participate, who were made to sit elsewhere than the hall where the hearing was conducted and follow the discussions via digital screens. Only “selected groups of people including local politicians and dam supporters with the help of police managed to enter and grab front seats in the [room]” (SANDRP, 2017b).

It is also clear that the Expert Appraisal Committee for river valley and hydroelectric projects took their decision not to press for a Joint EIA Mechanism based on information that reports of the project for the Indian *and* Nepali sides be placed before it for consideration of the full project, and that “the documents will be submitted for conducting the Public Hearing for the project for the Indian portion” (PDA, 2017a: 477). This implies that those concerned in India were to get access to the Nepali EIA records as well. The EIA Volume IV describes how the EIA, SIA “and other documents” were submitted to Uttarakhand State Pollution Control Board for conducting the Public Hearing [for the Indian portion] (PDA, 2017b: 2). Nevertheless, this report in its entirety refers to the Indian portion and no part of it describes or

summarises the previously conducted consultations on the Nepali side. It is unclear whether the Committee will have more meetings and what documents it is expecting to consider at them, in order to get a picture of the PMP in full.

Other concerns have been raised in newspapers and blogs regarding access to information. Everard and Kataria (2010) say documentation of the Nepali EIA was difficult to track down for their ecosystem services study; information had to be gathered from a summary in a newspaper. The official EIA has also been criticised by civil society; with respect to its contents, which have been called unscientific and inadequate. All but the executive summary is in English, though international best practice is that local languages should be used. The assessment sums up figures incorrectly in several places, and numbers are inconsistent in documents submitted at different stages of the process. For instance, the rainfall in the Pancheshwar catchment was reported as 1,620 mm at the initial stage whereas later it was said to be 1,996.5 mm, and the installed capacity of the project is seemingly reduced from 5,600 MW to 4,800 MW in the document considered for Environment Clearance by the Indian authorities (Thakkar, 2017b). Likewise, the catchment numbers given in the EIA do not add up and the project authorities have also not been able to get the map right: it shows the Saryu river flowing southwest from Bageshwar and running through Almora district before flowing east along the border of Almora and Nainital districts, which is inaccurate (Thakkar, 2017a).

Finally, it is also not clear from the SIA report if one, or more, resettlement sites are to be constructed on the Indian side. Notably, the official EIA also lacks any statement on the ‘zero alternative’ that lists the consequences if the project is not realised, and/or assessing appropriate alternative sites and/or designs. As noted above, the right not to be forcibly evicted requires that Governments on both sides explore all feasible alternatives before carrying out any forced eviction. Public consultations should also be held with respect to assessment of alternative sites, as well as of similar ways of achieving the same purpose and after impact predictions and mitigation measures have been considered.

No wider assessment of the impact of the project on the Ganga River has yet been done; since it is primarily aimed at energy production, the project is also unlikely to be useful for flood moderation in the river basin. Regardless, the PMP will also have impacts downstream from the project site—but no public hearings were planned or held there.

3.9.2 Evictions and relocation in the PMP context

The Pancheshwar project is estimated to affect hundreds of villages and submerge many in full or partially. The

dams are predicted to affect tens of thousands of families and relocate a large number of people, according to its SIA and the Nepali DEMP (PDA, 2017b; Shah Consult, nd). It is not clear exactly how many people are likely to be evicted or how much land will be expropriated from the affected families, however. Somewhat different figures are presented in newspaper reports referring to the Nepali EIA (according to which 21,621 people are to be displaced by the Pancheshwar dam with an additional 1,144 people by the re-regulatory dams at Rupaligad, Everard and Kataria, 2010) in comparison with the DEMP report (which mentions 22,765 people from 2,926 households are likely to be displaced) and the 2017 SIA (that refers to “the EIA Report prepared in 2005-06” for enumeration of project-affected families on the Nepali side and which, because of the average population decadal growth rate since then, estimates the affected population at around 27,600 individuals and 3,550 families) (PDA, 2017a: 647).

With respect to the Indian side, the SIA report contains several ambiguities, for instance regarding references to individual persons or whole families: In one place it is said that there are 29,715 “land titleholders/project affected persons/families that would lose their lands”, while 1,308 project-affected persons/families/land titleholder/shareholders “are likely to be displaced/evicted from their homesteads” because the PMP will cause them to lose both house(s) and land (PDA, 2017a: 549).

Nowhere in the official report are the numbers for India and Nepal aggregated and it is not possible to conclude, based on the figures given in different places in the EIA/SIA, how many individuals and families are actually *affected* and how many will be subjected to (forced) *eviction*. One summary says that 3,529 families will lose land and homesteads, and 200 families will lose only parts of their land (PDA, 2017a: 549); this is clearly a figure referring to the Indian side only. Another page says that “in all there are 1,536 affected persons/families that are likely to be displaced/ evicted [sic]” in India and “23.82% percent [sic] households would be displaced” in one Nepali district, while none of the population would be displaced from the other (PDA, 2017a: 645).

The SIA’s Resettlement and Rehabilitation Plans refer to the provisions in the *Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013*, but it only applies to affected families in India. (The same goes for the Forest Rights Act of 2006, which applies to scheduled tribes and traditional forest dwellers in the country but is not mentioned in the SIA.) To residents of the 134 villages that will be submerged on the Indian side of the river, compensation will be paid out for acquisition of private land to the respective landowners/land titleholders. According to the specifications of the *Pradhan Mantri Gramin Awaas Yojana* (previously *Indira Awaas Yojana*, a social welfare

flagship programme created to provide housing for the rural poor in India⁵), if a house is lost in rural areas the displaced family will be given the option of a constructed house in lieu of cash compensation. It is also suggested that the families to be evicted are “resettled/relocated at one place as a group, in one or more of the existing nearby villages” (PDA, 2017a: 689). The Indian families losing land due to reservoir submergence will be covered under a livelihood plan, part of which will be implemented through Women Self Help Groups. One chapter of the SIA is devoted to describing the Local Area Development Plan that will “empower the families of the study area villages” but also benefit those in partially affected villages as well as those in nearby periphery ones (PDA, 2017a: 729, 31). It is finally planned that the State Government of Uttarakhand will appoint an officer to be responsible for resettlement and rehabilitation at the state level.

For the Nepali portion, the resettlement and rehabilitation plan of the SIA report is distinctly shorter than that for the Indian side, and it mainly contains estimations for compensation for the immovable properties (houses and sheds, land and privately-owned trees) of the project-affected households as well as community infrastructure and facilities, on the basis of asset valuation (as converted to Indian rupees). “Dislocation allowances” are calculated, and also a livelihood restoration allowance for severely affected households (PDA, 2017a: 689, 715).

3.9.3 The rights to health, food, education, safe drinking water and sanitation

Of relevance to the human right to safe drinking water, the SIA report describes how residents in *India* currently depend on tap water (it is unspecified whether the source is river or groundwater), distributed under gravity through pipelines. Water is also accessed via hand pumps (supposedly from wells or boreholes), from ponds, springs, and the river. For the *Nepali* portion, the SIA draws on the Population and Housing Census 2011, according to which the majority of residents in the project area depend on drinking water distributed via pipes to individual or shared community taps (the type of water source is not specified), followed by uncovered wells and rivers or streams. A few households use spout (spring) water.

The DEMP report states that almost all settlements along the Nepali bank use river water for drinking and other purposes. Other streams and springs form the source of water for settlements located away from the Mahakali. Piped water supply and community taps are available in the larger settlements. According to the report, the drinking water facilities are generally very poor; the results of water quality tests at various locations

show that all samples exhibit *E. coli* contamination, as do samples from community taps. The turbidity in all samples from the Mahakali is much higher than the standard set by the National Drinking Water Quality Standard. In general, the residents of the project area settlements do not treat drinking water before consumption. About two thirds of the sampled households have toilets; the rest practice open defecation.

The DEMP report also states that during the construction phase of the PMP poor and unhygienic drinking water supplies could cause water-borne diseases including diarrhoea, cholera, dysentery, and typhoid, particularly in campsites and adjoining areas. There is a huge risk for the spread of such diseases amongst the workforce and local residents. The magnitude of these epidemics could sometimes be quite high, and communities located in both direct and indirect impact zones could be severely affected. Human health could be substantially affected (Shah Consult, nd). Similarly, the SIA says improperly planned labour camps generally tend to become slums, with inadequate facilities for potable water supply and sewage treatment and disposal. This too could lead to epidemics of water-borne diseases.

The official SIA holds, in a rather vague way, that “[a]fter completion of construction phase, there will be upgradation of local services like education, drinking water, health post, and other social governmental services like security, bank, finance etc. will increase at and around the project sites” (PDA, 2017a: 644). It is not altogether clear what, for example, “health post” and “other social governmental services” refer to. According to the Resettlement and Rehabilitation Plans, in addition to the benefits that would be extended to the Indian families affected, certain amenities and infrastructural facilities are proposed for resettlement sites, including a safe drinking water system providing 135 litres a day for everyone, distributed via a water treatment plant and an overhead storage tank through a network of pipelines; a sanitation network; a primary school; and the construction of a primary health centre on the resettlement site. No equivalent plan is reported for Nepal. There are also no statements in the DEMP report about water and health beyond the construction plans, or about access to basic water services that those displaced may lose.

In sum, there seems to be certain risks of retrogression in the level of standard of living attained when it comes to the right to safe water, at site during construction as well as in the areas where to people are being moved. Those affected should not be placed in a worse situation after eviction; Art 11, ICESCR obliges States to refrain from any action which lowers or has a negative effect on the standard of living of rights-holders. In the case of measures that in effect weaken the protection of rights, States have to justify the retrogression by demonstrating that they adopted the measure only after carefully considering all the options, assessing the impact and

5 <https://pmayg.nic.in/netiay/home.aspx>.

fully using their maximum available resources (Art 2.1, ICESCR).

On the right to adequate food, the DEMP says agriculture is the main source of livelihood for the people living in the project area on the Nepali side. But it also says the overall agricultural productivity there is considered very low compared to other districts of the country, with only some 16 per cent of the households surveyed in the project areas producing enough food for an entire year (and thus qualifying for being defined as subsistence farmers). As an effect, most residents of the project-affected villages also depend on salaried jobs in off-farm (non-agricultural) activities. In parallel to this, a context analysis of the area (Bhattarai and Bastakoti, 2018) points out that in practice about 30–40 per cent of the total cultivable land in the four districts along the river that were studied are left fallow even in the rainy seasons because for more than 60 per cent of households at least one member had migrated out and was working abroad for seasonal employment. In particular, out-migration both to nearby cities and abroad is marked among the rural youth. This also leads to

agricultural production increasingly becoming a preserve of women, with remittances from non-residential villagers a vital source of income.

The DEMP report stresses that in terms of food security the PMP project may cause food scarcity due to the loss of cultivated land and agricultural production, and that resulting meagre food production may in turn lead to a range of nutritional deficiencies and other health problems in the community. This insufficiency of food production may lead either towards the establishment of new marketplaces for food imports from elsewhere, or towards the emigration of [a larger share of] the population. The PMP's objective of improving the potential for irrigation and hence food security may therefore turn out positive in terms of the State's realization of the right to adequate food.

The SIA contains no comparable reasoning. It does, though, seem clear that at least some of the affected people live as subsistence farmers, whose access to water resources for their own food production must be protected under international human rights law.



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4. Discussion

4.1 Focus on human rights or related obligations?

The building of large dams risks directly affecting the human rights to an adequate standard of living and to adequate housing, among other substantive rights. Involuntary, development-based displacements and evictions from one's homes and/or land because of a dam project can be deemed legally justifiable in view of the benefits, but for the project to be regarded lawful under international law, several requirements must be fulfilled. Among those requirements are genuine consultation; giving adequate and reasonable notice to all affected; and ensuring availability of information and of legal remedies and legal aid. Facilitation of public participation should be based on an Environment Impact Assessment (EIA) and public consultation, and in the case of a project such as the PMP, which has transboundary impacts, the EIA should reflect these.

Based on decades of experience together with present day societal commitments to sustainable development, climate change mitigation and adaptation, and human rights, it stands clear that dams often lead to a range of benefits but also to inequitable outcomes and irreversible ecological and environmental damage. There are, however, a host of opportunities for making affected people beneficiaries and enabling them to actively contribute to formulating and enjoying project benefits. Taking an HRBA involves a systematic method to strengthen respect for human rights, democracy, and the principles of the rule of law.

The primary duty-bearers are obliged to respect, promote, protect, and fulfil the applicable human rights and act under the guidance of the principles of non-discrimination, participation, transparency, and accountability. It is not legally binding on India or Nepal, nor on other actors involved in planning and execution of the project, to follow a certain methodology or approach to respect, protect, fulfil, and promote human rights. However, by signing and ratifying the 1966 International Covenant on Economic, Social and Cultural Rights (ICESCR) and the 1966 International Covenant on Civil and Political Rights (ICCPR), both countries *undertake* to respect and to ensure the human rights, and to *take steps* to achieving their full realisation.

Those steps can be taken individually or through international assistance and cooperation, especially economic and technical, to the maximum of available resources and by all appropriate means including the adoption and implementation of legislative measures. A range of

actors, from development aid cooperation agencies such as Sida to Oxfam to financing institutions like the Asian Development Bank and the Asian Infrastructure Investment Bank, have an interest in ensuring that cooperation builds on identification of applicable human rights, and due consideration of them in the context of the whole of a project as well as with respect to the standards and principles of international human rights law. Applying a human rights-based approach, as has been done for the analysis in this report, serves to assist in duly integrating principles and clarifying responsibilities in steps towards this end.

4.2 The right to be heard—and listened to?

In its seminal report, the World Commission on Dams observed that the application of a rights-based approach recognises the indivisibility of civil, political, economic, cultural, and social rights. By adopting an HRBA the range of basic human rights is broadened beyond the strictly socio-economic sphere of needs to (also) include rights to life, health care, education, shelter, food, water, remedy, security, subsistence, and livelihood.

Unlike *needs*, which are expressed as aspirations for benefits, *rights* and *entitlements* are (or are supposed to be) expressed in law, allowing for their attainment or redress through the justice system. Since the 1970s a growing number of countries and international development agencies have followed the lead of the US in adopting laws to ensure that an EIA is carried out before any major infrastructure project such as a dam is constructed. Dam builders and operators in most parts of the world are, consequently, forced to take steps to assess and mitigate the impact of their projects in order to comply with domestic law, where such is in force. Experience, mainly from the US two decades ago, is that such steps and measures generally increase their construction and running costs and reduce the amount of electricity and water which can be provided by dams. In effect, such mitigation steps render dam projects less attractive, in particular as their economic viability becomes marginal at best (McCully, 2001). Not taking the steps in question would result in that the true cost of dams are hidden and/or externalised onto local communities on the one hand, and onto nature and ecosystems, on the other.

More recently, Kaneti (2020) argues that at a point in time, dam construction was considered to have given way to a common acceptance not only of their technical problems but also of a desire to adhere to complex global norms related to human rights, environmental sustainability, and indigenous groups. If this was bolstered by the publication of the World Commission on Dams

report in 2000, the victory for dam opponents was short lived, as the trend has been overshadowed by an entirely unprecedented global interest in large dams. Is there, she asks, still room for viable opposition to dam construction considering the more recent eschewing of both scientific evidence and international environmental and human rights norms?

There is also experience of dam developers and governments seeking to turn the EIA process into a bureaucratic formality that must merely be passed before getting project approval (McCully, 2001). Though affected people and NGOs have increasingly been involved in decision-making on large dams, often through decisive people's movements against them, project planning and evaluation of technical parameters and cost–benefit feasibility are typically undertaken with little actual participation by those affected, or due transparency. The World Commission on Dams therefore observes that “the most unsatisfactory social outcomes of past dam projects are linked to cases where affected people played no role in the planning process, or even in selecting the place or terms of their resettlement” (WCD, 2000: 176). The Commission hence recommends that an assessment of the actual need for a project like PMP is carried out, involving national and sub-national public hearings and targeted community consultations at various stages of the planning process. This can be compared with the examination of the no-action alternative, of not carrying out the project at all.

With respect to public hearings on large infrastructure projects or natural resources, scholars highlight examples where extractive industries have manipulated communities, introducing factionalism, dividing communities and promoting individuals, who may have no traditional authority as leaders, to represent the communities. Consent is thus achieved by the exclusion of the majority of community members from effective participation in decision-making (Hanna and Vanclay, 2013; MacKay, 2010). Since very little information on the consultations undertaken in Nepal is available, it is not possible to say with certainty whether they were ‘free’ and legitimate. Despite the ILO provisions on indigenous peoples being binding on a small number of countries, including Nepal, there is the risk of the principle of free, prior and informed consent becoming a box-ticking procedure that depends on the good will of decision-makers.

For Nepal to respect the FPIC principle requires a two-way dialogue that conditions future actions and decisions on insights obtained through the consultation. There must be a preparedness to make due changes based on the dialogue, for instance about alternative relocation sites. These procedural requirements also relate to the substantive human rights that each tribal group of people in the affected area have, should there be more than one tribe affected. Such rights must be a matter of specific consultation. Nonetheless, they were neither considered

in the EIA/SIA reports, nor in the DEMP report or (seemingly) in the Nepali EIA.

The consultations on the Indian side have met with criticism on several accounts but more information about them has been recorded and shared with the public—albeit only online and in the English language. Better sharing of information and additional public hearings to provide opportunity for genuine consultation with those affected should be arranged, to allow raised concerns to impact on the final EIA before decisions are made on evictions, relocations, and compensation plans. The involved State governments should explore fully all possible alternatives to evictions and those affected should be given the opportunity to propose alternatives that the authorities should duly consider. Any decision relating to evictions should be announced in writing in the local language to all individuals concerned, sufficiently in advance.

In the PMP case, the potential negative effects from there being a ten-year gap between the collection of empirical data for one portion of the area—the Pancheshwar dam on the Nepali side—and the others, including all the districts in India, are noteworthy. It is also unclear why so many different assessments have been undertaken, and most of all why they are not aligned and consistent to a further extent. The official EIA/SIA reports also contain a number of contradictions, as pointed out above. Such discrepancies lead to confusion among concerned stakeholders and signal poor attention to detail that may translate into questionable decisions in the future and prevent the possibilities of effectively holding decision-makers accountable.

4.3 The right to compensation, and to be regarded a rights-holder

The right to an adequate standard of living (which includes the rights to adequate housing and to safe drinking water, etc.) must not be lowered or worsened due to actions taken in connection to a dam project or otherwise, unless this can be duly motivated. The State is, rather, to take steps to improve the standard of living, and justify retrogression that may occur. An aspect here is that of being regarded as a ‘rights-holder’ with justiciable entitlements and freedoms (see the Stakeholder analysis above). Importantly, only those considered ‘affected’ by those commissioned to assess the impacts of the PMP are consequently deemed to have such entitlements that can lead to claims.

Despite land being critical for the majority of the world’s population who depend on it, alongside land-based resources, for their lives and livelihoods, there is no human right *to land* in the international law frame-

work.⁶ However, in connection with development-based displacement, ‘forced’ evictions also include removals against their will of individuals, families and/or communities from *the land* which they occupy.

One example of where the land matters concerns the Baitadi District in Nepal. According to the SIA, no one will be displaced from this area. Residents there, and others not listed as losing their lands *and* homes, are thus expected to be able to stay in their houses. Their human rights may still be violated; they must not be discriminated against in terms of adequate compensation for assets and the right to socio-economic development.

The compensation parts of the Resettlement and Rehabilitation Plans have been criticised by environmental groups as well as locals in India, holding that “[i]f land for land is not a provision in the rehabilitation policy and the compensation rates are insufficient, the displacement by Pancheshwar Dam will lead to severe impoverishment as these farmers will not be able to buy similar fertile land, and thus there is no guarantee of a livelihood for them” (Joshi, 2017b). Even if the overall agricultural productivity in the PMP area has been deemed low, households may still depend on their lands—and the river as such—for a good part of the year. Fair compensation must be awarded to all those whose land will be expropriated, whether this is partially or fully.

Aird (2001) offers a reminder that throughout recent history, millions of people worldwide have been *economically* displaced due to the changed environmental conditions caused by dams; many have lost their livelihoods and had to relocate in search of income. This aspect is of importance to rights-holders whose land will be (partially or wholly) submerged but are not to be evicted. Indigenous peoples’ access to natural resources for securing their livelihoods is afforded far-reaching protection in international human rights law and in recent years, the recognition of the links between unsound environmental management, such as resource depletion and human rights, has increased. More than 150 countries have recognised some form of a right to a healthy environment in their national constitution, legislation, policies or international or regional agreements.

Additionally, the gradual infringement of rights may begin long ahead of the actual violation, but without there being any recourse to legal protection. The Pancheshwar Development Authority acknowledges that “[r]elative marginalization often begins long before actual displacement; for instance when lands are identified for future flooding they are implicitly devalued, as new public and private infrastructure investment are

prohibited and the expansion of social services is also not done” (PDA, 2017: 647). The World Commission on Dams observes that at the planning and design stage, an important socio-economic impact on those concerned is caused by the delay between the decision to build a dam and the onset of construction. Dams are often discussed years—or, as in the case of the PMP, decades—before project development is seriously considered; once a site is identified a form of planning blight can occur, making governments, businesses, farmers and others reluctant to undertake further productive investments in areas that subsequently might be flooded. This can result in communities living for a long time starved of certainty, as well as of concrete development and welfare investments from the State or municipality’s side. The psychological stress felt by many people living in a possible reservoir area cannot be effectively quantified in economic terms, but it is a real issue (WCD, 2000).

4.4 Marginalised and vulnerable groups

Not just one, but several EIA/SIAs have been carried out. As it should, domestic law in both countries stipulate public hearings as part of the EIA process. However, in Nepal such were conducted in January 2010, based on the then draft EIA, but none were held again to account for the ‘official’ EIA/SIA finalised in 2017. Little is known about any of the hearings conducted; neither is it known whether letters of recommendation from the concerned village committee(s) or municipalities have been obtained. On its own, this lack of information and transparency is concerning. The assessments suffer from a lack of consistency and thoroughness that may have direct consequences on who are considered entitled to compensation and who are not. The degree of technical complexity in planning documents, EIA and other reports, and decisions leads to information asymmetry between authorities and their proxies, on the one hand, and the people affected, on the other. As is the case with the PMP, keeping a single hard copy of the Nepali EIA in a library in the capital, and publishing the so-called official EIA and SIA reports online, and both only in the English language, is insufficient to provide for full and equal access to information.

One serious aspect is that many people may not possess land ownership documents that prove their right to compensation. In both India and Nepal, there are *Dalits* (traditionally, those regarded as members of India’s lowest cast: formerly known as ‘untouchables’) who are already marginalised in society.

In addition, due to the prevalence of out-migration among young men from areas on both sides of the river, women farmers are left to ensure food security from agriculture (Bhattarai and Bastakoti, 2018). Studies have

⁶ The right to property is codified in the European Convention on Human Rights; Art 1 of Additional Protocol No. 1. This protects possessions against interference by the State that is not done in accordance with minimum standards, in particular when an adequate compensation scheme is not offered. This right does not apply outside Europe.

shown that neither development nor climate change is gender neutral. While the Himalayas are subject to de-agrarianisation—a move away from the traditional agrarian society—due to climate and environmental change and because of land abandonment resulting from male out-migration for economic reasons, women who are left behind continue to be vulnerable because of their high dependence on local natural resources for daily living (Shukla et al., 2018).

In the case of the PMP, it has been argued that due to police presence during public hearings in Almora district, India, some villagers could not express their concerns fearlessly, and only two women could manage to speak (SANDRP, 2017b). This information has not been confirmed, but it does indicate potential abuses of power and a violation of the prohibition against discrimination.

4.5 Achieving the SDGs

The vision for a rights-based agenda for the 21st century as outlined by the UNDP (2000) builds in part on working towards poverty eradication as social justice through fulfilling the rights and accountabilities of all actors involved in societal development. Today, the UN's 2030 Agenda puts Zero Hunger (SDG 2) as one of the primary goals for sustainable development. The PMP aims to enhance food grains production, mainly in India, by providing year-round irrigation from the augmentation of dry season flows. This water allocation aspect of the dam project is of importance for the two State governments involved to progressively realise the human right to adequate food. It matters in particular for subsistence farmers and indigenous peoples within the irrigated area in question, two vulnerable groups who should, in no case, be deprived of their means of subsistence. It also matters from a general food security perspective, to ensure that people who do not belong to said groups and therefore have no human right to water resources for their own food production can access adequate food on the market (cf. CESCR, 1999; OHCHR, 2010a). The PMP's aim of improved irrigation is therefore relevant for the mitigation of food insecurity.

In terms of SDG 6, Target 6.6 should be noted: by 2020, protect and restore water-related ecosystems, including mountains, forests, wetlands, rivers, aquifers, and lakes. Hydroelectric dams cause profound impacts to freshwater ecosystems, disrupting the natural flow of water and sediments, thereby impeding movements of migratory fish. Without proper measures, they can cause deterioration of water quality, eliminate unique habitats and undermine biodiversity preservation and freshwater ecology—all of which have fundamental connections with biodiversity, human well-being, livelihoods and the striving towards zero poverty (SDG 1). From a human rights perspective, this also comes with risks of adversely

impacting the rights of local populations that depend on healthy, free-flowing rivers for their subsistence.

4.6 Dams and 'climate-friendly' energy production

Advocates of hydropower point to the commitments from many countries to decarbonise and mitigate climate change, which no country has been able to do without a large element of hydropower (IWP&DC, 2020). The Rio +20 UN meeting in 2012 resulted in countries committing to meet future energy demands through renewable sources. Since 2015, the UN sustainable development goal for urgent action to combat climate change (SDG 13) and its impacts is interlinked with delivering on the UNFCCC climate accord (the Paris Agreement) in addressing the need to limit the rise of global temperatures through mitigation of greenhouse gas emissions. In the new nationally determined contributions (NDC) round under the Paris Agreement, starting 2020, hydropower may remain the dominant quantified renewable energy target.

Generally, hydropower dams are purported to be climate-friendly—or at least climate-neutral. However, greenhouse gases (GHG) are emitted to the atmosphere from manmade dams and reservoirs just like from lakes, rivers, and wetlands. However, artificial reservoirs created by dams are distinct from natural systems in a number of critical ways that may enhance GHG emissions from these systems. The flooding of large stocks of terrestrial organic matter may fuel microbial decomposition, converting the organic matter stored in above and below ground biomass to carbon dioxide (CO₂), methane (CH₄), and nitrous oxide (N₂O). Furthermore, reservoirs often experience greater fluctuations in water level than natural lakes. Drops in hydrostatic pressure during water level drawdowns can enhance CH₄ bubbling rates at least over the short term. The high catchment area-to-surface area ratios and close proximity to human activities can fuel additional decomposition. Nevertheless, careful siting of new reservoirs may help balance the positive ecosystem services that reservoirs provide against the GHG emission costs (Deemer et al., 2016).

To this comes that hydroelectric dams are built with giant walls of concrete, the key component of which is cement that, in turn, has a high carbon intensity. Andrew (2018) finds that the global production of cement is the third-largest source of anthropogenic emissions of CO₂, equivalent to about 4 per cent of emissions from fossil fuels. In other words, though hydropower as such is generally presented as a source of clean and renewable energy, the CO₂ emissions from the cement in the concrete, thus in the very infrastructure, should also be included in the equation.

There is general consensus that to regard infrastructure such as dam buildings as sustainable (under SDG 9), they need to be planned, designed, delivered, managed, operated and decommissioned so as to minimise the negative impacts and maximise the positive ones—for the whole economy, society and the environment—throughout their entire lifecycle (The Economist Intelligence Unit, 2019). However, the periods of extreme drought and flooding predicted by climatologists, and increasingly apparent in many areas of the world, tend to render many dams useless during much of the year (Civil Society Organisations, 2019). Hence, the resilience of such infrastructure should also be considered.

Climate change is expected to drive consistent increases in the total streamflow of the River Ganges; changes in future flow volumes will also have a seasonal dimension, with increased peak runoff and decreased low flow in some sub-basins (Sati, Sharma et al., 2019). Assessments suggest that pre-monsoon flows are expected to decline, with implications for ecosystem services, irrigation—and hydropower (Scott et al., 2019).⁷

Extreme weather and worse floods and droughts are projected to increase in frequency around the region. Changing climates that strain subsistence farming may already be damaging livelihoods and contributing to rising rural out-migration from the region. Rising global temperatures are gradually shrinking the Himalayan glaciers and snowfields whose meltwaters feed the river, foreshadowing future flow fluctuations, with not enough—or else too much—water to meet needs, and compromising the intended benefits to agriculture and energy production from the project.

The EIA conducted for the PMP does not assess how the project will be impacted by climate change and how the project itself will be affecting the adaptation capacity of the people to cope with a changing climate. The project will result in deforestation of large areas and this, in turn, will have an adverse impact on the climate (SANDRP, 2017). When villagers raised the issue of climate change at public hearings, the response was that “changes at micro level have been reported due to a water resources project [sic]. Such impacts are marginal in nature and localized in spatial extent” (PDA, 2017b: 27).

⁷ The assessments that pre-monsoon flows are expected to decline come with an unresolved degree of certainty. According to The Hindu Kush Himalaya Assessment, an increase in streamflow is expected to come mainly from precipitation (degree of certainty: established but incomplete), Scott et al., 2019.

4.7 Furthering of the PMP-related human rights through a HRBA

This analysis has documented the (risks of) human rights violations associated with the PMP. The conclusions provide a basis for giving recommendations and prescribing solutions on appropriate remedies and mitigation measures. The HRBA analysis builds on the PLANET principles, including non-discrimination, participation, transparency, and accountability mechanisms in the implementation of measures and policies in the area of—as here—development-based evictions. It further stresses the importance of the right of access to administrative and judicial remedies in cases of human rights violations.

A fundamental pillar of the HRBA is the contribution to empowering rights-holders to claim their rights and entitlements and increasing the capacity of those obliged to respect, promote, protect, and fulfil those rights.

The HRBA appreciates that vulnerable and marginalised groups, minorities, and indigenous peoples are not always able to fend for themselves. Likewise, it recognises the governance gaps that prevent duty-bearers from complying in full with their obligations. ‘Capacity’ will mean different things for rights-holders and duty-bearers in terms of the ability to effectively perform functions for setting and achieving objectives, and identifying and solving problems with respect to one’s roles and responsibilities. Capacity gaps can involve knowledge, understanding and awareness of the applicable rights and obligations, standards and principles under the international human rights framework. They can equally relate to human and budgetary resources, mandate, legitimacy, and political will. Moreover, factors such as political considerations, socio-cultural affiliations and value priorities may prevent government authorities and individual officers from safeguarding the rights in question. In addition, limited skills, and experience with, for instance, procedures related to large-scale dam buildings may in effect prevent the fulfilment of obligations.

As noted above the ICESCR (Art 2.1) requires of each State Party that it “take[s] steps, individually and through international assistance and cooperation, especially economic and technical, to the maximum of its available resources, with a view to realise progressively the full realization of the rights [...] by all appropriate means”. Though these are core obligations, in terms of the level of capacity the reference to “resource availability” reflects a recognition that the realization of social, economic and cultural rights can be hampered by a lack of resources and can be achieved only over a period of time. Equally, it means that a State Party’s compliance with its obligation to take appropriate measures is assessed in the light of the resources—financial and others—available to it (OHCHR, 2008). All efforts to

build duty-bearers' capacity as part of the HRBA counts towards this.

These dimensions require that all actors in the process—including finance institutes, development aid agencies, donors, international institutes, NGOs, civil society, and local partners—contribute to building capacities towards more effective realization of the universal human rights. An integral component of the HRBA is ensuring that roles and responsibilities are understood in planning, decision-making and monitoring, and when engaging with rights-holders and duty-bearers.

At an applied level, the HRBA entails engaging directly with stakeholders to share findings of the analyses of rights and corresponding obligations and to provide contextualised advice contingent on the facts, including how duty-bearers can improve the involvement of rights-bearers in decision-making. In practical terms, this requires using the approach as an instrument for enabling duty-bearers to reach people who are the poorest and most vulnerable, while empowering these groups to articulate their needs and become active change-makers. The HRBA involves mapping of human rights and corresponding obligations, identification of rights-holders and duty-bearers, assessment of implementation and compliance with the international law framework, and evaluation of application in context—as has been done here. While a desktop report like this has its limitations, as it stops short of building legal and other capacity on the ground and engaging with the concerned, it still provides the basic knowledge of what people are entitled to. Based on this, empowerment and strengthening of capacities on the ground can be achieved through:

- Analysis of the baseline knowledge and skillsets among the concerned rights-holders and duty-bearers;
- Assessment of the level of their resources and capacities to determine what assistance they may need;
- Assessment of optimal but also practical ways to equip rights-holders with the knowledge, skills and tools necessary for them to take ownership of the process and hold their corresponding duty-bearers accountable to fulfilling obligations;
- Assisting with support to providing information material and/or arranging of training events or awareness-raising programmes on what human rights are and how they are relevant;
- Advocacy interventions targeting duty-bearers at different levels.

For these ultimate, practical steps, local community representatives, advocacy groups and others who can further the cause with and on behalf of those affected need to be involved.

4.8 Contested issues and future steps for development

The PMP has hitherto offered waiting, uncertainty, and poor transparency. According to the Mahakali Treaty, the DPR was to have been prepared within the first six months of the agreement (i.e., by December 1997); arranging of resources for construction within a year; and complete construction of the project within eight years. The PDA was only established by the two countries in 2010 and as noted above, the first meeting of the governing body of this Authority was convened in 2014. The 946 pages 'official' EIA and the SIA were released in October 2017. However, when listing select data relating to the Nepali side, the latter documents refer to “the EIA Report prepared in 2005-06” (PDA and WAPCOS, 2017a: 13). A separate SIA report was published in June 2017; this is however not identical with the one included in the October version. There is also a 653-page report documenting ‘public hearings’—on the Indian side (PDA and WAPCOS, 2017b). In other words, the public hearings in the two countries were not based on comparable EIA data and methods, nor were they aligned or undertaken simultaneously in the affected districts.

Likewise, the exact figures differ between different documents with respect to how many will be displaced due to the PMP. Estimations based on the available material (PDA and WAPCOS, 2017a; Shah Consult, nd; Water Resources Consult Ltd., 2012) tell us that altogether, almost 60,000 people will be permanently displaced because of the project if progressing as planned in 2017. Neither experts nor the affected have much confidence in the authorities and actors involved in assessments this far. Thakkar (2017a; 2017b) has pointed out that many numbers, calculations, and figures do not add up. This gives the impression that the parties are not in sync with each other and it may, in turn, result in difficulties to hold actors to account when different versions of key material exist.

Long before the relevant PMP documents eventually saw the light of day, Gyawali (2003) argued that a thorough DPR could be used to remedy a power imbalance between the two parties that occurred due to poor policy and judgment when signing the Mahakali Treaty. In 2020, however, experts comment that the DPR is getting farther and farther away from ever being finalised (Gyawali, personal communication, 2020).

The lack of mutual trust between the two riparian countries project has seemingly continued to taint the PMP. The project has not seen much of progress lately and both nations have expressed dissatisfaction in many points including the existing consumptive use, economics, equal sharing, and phasing of the project (Gautam and Kumar, 2019). Neither country endorsed the 2017 DPR, voicing reservations notably on rehabilitation packages and design points. In April 2018, the deadline to prepare

an updated report was extended to December; a revised second report was sent to the Pancheshwar Development Authority in August 2018 (Business Standard, 2018; Poudel, 2018). In April 2019, a secretary-level meeting between Nepal and India extended the deadline to prepare the DPR to December the same year. That month, high-level officials representing both countries agreed to extend the tenure of the team of experts by one year and finalise the DPR “as soon as possible” (The Himalayan Times, 2019). The Indian government allocated INR 7.5 billion (almost 100 m USD) through its budget for the fiscal year 2020-21 to finalise the DPR by December 2020; however, the PDA has yet to finalise the necessary policy documents, final bylaws, administration policy and human resources policy of the project development agreement (The Himalayan Times, 2020; SANDRP, 2020).

According to the Mahakali Treaty, Nepal and India are expected to jointly mobilise the required financing for the PMP. As late as in 2018, it remained unclear how the countries were to fund the engineering feat that the PMP would involve; the then current estimated cost was close to 350,000 m INR (ca. 4,635 m USD) (Ansher, 2018). In the last five years, the Government of India has allocated more resources towards the development of solar and wind power, meaning that hydropower became a lesser priority. This is also in recognition of how large storage hydroelectric projects are more difficult to construct due to the complex land acquisition laws and massive opposition by the local residents (IWP&DC, 2020). Himanshu Thakkar of the South Asia Network on Dams, Rivers and People reckons that the economic viability of the project itself is a big question mark and financial viability is another big one; the question of possible financial partners therefore seems a bit premature at this stage (personal communication, 2020). To this comes that three out of every four large dams suffered a cost overrun in constant local currency terms and actual costs were on average 96 per cent higher than estimated costs (Ansar et al., 2014).

The International Hydropower Association is currently working with the Climate Bonds Initiative to push for financing of dams through issuing of green bonds. Such bonds are fixed income loans given to finance or refinance projects or assets that help address environmental and climate risks. However, some issuers have excluded proceeds from green bonds to finance hydropower projects due to a lack of clarity over appropriate sustainability standards and eligibility criteria (IWP&DC, 2020).

Meanwhile, there is also the question of diplomatic ties and vested interests in the ultimate decisions about going ahead with the PMP, which is of concern also to others in the region than Nepal and India. To one commentator “[t]he project is a strategic tool for India to maintain influence in the region [and] of high significance for India in view of China’s growing influence in Nepal.

In fact, the Indian government has already been using large-scale transboundary hydropower projects as an efficient tool for diplomacy” (Aggarwal, 2019). Other scholars note how hydropower investments can mean “[a] handshake across the Himalayas” between Nepal and China where “small states like Nepal in fact use Chinese interventions to advance domestic projects of state formation and national security at home” (Murton, Lord and Beazley, 2016).

Similarly, Banerjee (2014) draws attention to India’s desire for energy security to retain high growth rates. In the light of how international actors in the development field have been fairly consistent in emphasising the role of hydroelectricity as the ideal energy source to harness renewable green energy, economic development through hydroelectric power is prioritised over the social and environmental safeguards in place. The ensuing dislocations and ecological hazards are not cases of ‘implementation gaps’, but rather are manifestations of a deeper crisis in the policy framework.

In other parts of India’s north-eastern Himalayan region, Banerjee (2014) finds that the state’s response to protests against hydropower projects ranged from relatively benign actions (negotiations with activists) to more repressive ones. Even so, Dipak Gyawali, former Minister of Water Resources in Nepal and author of many books and articles on the Mahakali Treaty and the PMP, has for long reasoned that “[s]outhern socio-environmental activists do not uphold the slogan of the Northern environmentalists of ‘No dams!’ but argue instead for ‘No bad dams!’ This provides ample space for constructive engagement in the policy terrain between the government, the business entrepreneurs and the civil society to find a common acceptable ground” (Gyawali, 2013: 193). In line with this is the finding that the ‘handshake’ between Nepal and China over dams connects well with Nepali ambitions of *bikas*, development (Murton, Lord and Beazley, 2016).

Apart from political disagreements and situation of distrust, there are also concerns that the region is geologically sensitive. A study has warned that if executed in its current form, the proposed dam is vulnerable to earthquakes in the region, among other geological threats. There are concerns about the safety and sustainability of the dam in its current form, “due to seismicity, reservoir-induced seismicity, slope instability reservoir draw down effect and unpredictable large volume sediment mobilisation from paraglacial zones” (Sati et al., 2019: 1488).

In June 2019, Indian scientists published a study detailing how the Pancheshwar dam in its current form is vulnerable to earthquakes. There are growing concerns regarding the implications of impounding large water bodies in a tectonically active terrain and questions with respect to stability that were not addressed in the

pre-feasibility study (Sati et al., 2019). The environmental consequences of dam projects in a geologically and ecologically sensitive area such as the Himalayan cannot go neglected (Valdiya, 2014).

Critics urge the two nations here to follow the international trend of creating an energy mix to build up their power systems rather than focusing only on a large hydropower project (Poudyal et al., 2019). Indeed, diversifying the power generation calls for systems thinking.

For instance, hybrid power concepts combine windmills and/or solar parks with a pumped hydro storage power plant to provide technical resilience. Others emphasise that many large dam projects, including the one discussed here, are multi-purpose projects where hydropower is one among other important purposes such as flood control and water supply. With changes in demand and economy, water supply may become more important than power generation in the future (IWP&DC, 2020).

Conclusions

The Pancheshwar multi-purpose project may not materialise in the foreseeable future—if at all—but very many other large dam projects forge ahead around the world. They, and their proponents, need to consider human and other rights of the affected communities. These dams will, most of the times, involve aspects of the water–food–energy nexus, complete with climate change and vulnerability, where systems intersect and are interdependent of each other. The complexities of all matters involved call for multi-level governance that enable mitigation of conflicts and distribution of costs and benefits.

The PMP is complicated by the fact that the dams are to sit on an international border. Transboundary conditions should pave the way for aligned and streamlined assessments and public consultations on both sides of a shared river—though the international law may be silent regarding procedural aspects.

5.1 Drivers and impediments for collaboration over shared waters

Thanks to their shared rivers, Nepal and India can undertake joint development to improve regional welfare. India's expanding economy offers both possible development investment and prospective markets for Nepali electricity. Appropriate infrastructure development in upstream Nepal can help protect downstream India from floods and sedimentation. Inland navigation projects could connect landlocked Nepal to India's waterways and ports. Cooperation on their rivers can help India and Nepal to ensure their water, food, and energy security.

However, actual water cooperation has been halting and often strained. Several early agreements on shared projects have proven controversial in Nepal, while many Indians say they have repeatedly agreed to revise the accords, accommodating Nepali concerns. These sources of friction have sapped cooperative will and stalled collaboration.

The effective and sustainable management of shared transboundary river basins demands sustained and effective cooperation between countries and communities, across different sectors, and different scales of government and society. Even in 2014, when the political will to further the PMP was considered at its peak, researchers found that India and Nepal were falling short. Surveys of policy analysts and practitioners, NGOs and the private sector in both countries overwhelmingly judge both water management within and water cooperation between the neighbours poorly. In

particular, large majorities in both nations hold negative views of the other, and of the Mahakali Treaty (Price et al., 2014).

Water resources management and institutions have evolved significantly in both India and Nepal in recent decades. But whether by inertial policy momentum or the motivated persistence of institutionalised practices and interests, governance reforms have not always taken hold. Public participation processes have been cursory and top-down, offering communities and stakeholders little to no input or influence over decision-making, as shown by the Pancheshwar Project. Water resources policy-making is often conducted within different user sectors and management agencies silos.

Capacity-building programmes, multi-stakeholder dialogues, trainings for journalists, and problem-solving workshops bringing together decision-makers and water users from across shared watersheds provide meeting places for working across sectoral and political boundaries. These are mechanisms through which to explore co-operative solutions to common challenges. Experience in both countries shows it is often through civil society engagement, public participation and policy approaches rooted in local and contextual knowledge that effective, adaptive, and sustainable governance strategies have been adopted.

In the Mahakali River Basin, the TROSA Programme has engaged in empowering women to take leadership roles for 'transboundary water governance'. Women Empowerment Centres (WECs) have been formed to bring women and girls as well as men and boys together to sensitise them about their rights over, and responsibilities for riverine water resources, to capacitate them in becoming leaders and involving them in transboundary water resources planning and decision-making (Oxfam, 2019). These WECs might be utilised as vehicles for trainings and promotion of legal and human rights.

5.2 Can a human rights approach redress the PMP wrongs?

The PMP, if built, will impact fundamental rights to self-determination, land, territory, resources, and cultures belonging to the affected, including indigenous peoples. In such a project, meaningful dialogue in good faith during the entire process is a prerequisite. However, the various consultations with rights-holders undertaken so far resemble a ticking-off formality to get project approval by the government authorities; stakeholder

involvement has been symbolic rather than meaningful. Moreover, the steps to realise the right to information in decision-making processes have been characterised by tokenism. There has also been insufficient coordination between the countries, to the detriment of those on the ground and their representatives.

Government actors as well as future financiers and businesses involved can steer and form their actions so that the interests of stakeholders, particularly those belonging to vulnerable groups, are duly respected. At the point of writing this analysis, it is the procedural rights and obligations that raise immediate concerns.

Redressing past wrongs in the case of the PMP can, to some extent, be achieved if a decision is finally taken to implement the PMP. To ensure that involuntary resettlements and evictions are not considered unlawful and ‘forced’, the shortcomings in giving access to relevant information, the right to public participation as well as full and genuine consultation *throughout* the entire process need to be addressed. The relevant information must be effectively disseminated, and opportunities for the affected to partake in dialogue and negotiation, preferably in the local language, be provided. Likewise, decisions on alternative sites, rehabilitation and resettlement should follow the OHCHR’s Basic principles of 2007. Further, calculation of compensation should consider the true costs for the affected and those economically displaced due to environmental impacts linked to the dam buildings.

As State Parties to UN treaties and other instruments of international law, Nepali and Indian government bodies are obliged to recognise and realise human rights. Methods and recommended steps of the HRBA as envisaged by different actors (such as the UN Common Understanding) are directed at donors, NGOs and development cooperation partners and are as such not directly applicable to national governments. The report of the World Commission on Dams addresses a wide range of stakeholders and actors involved in dam projects. Its findings and recommendations, in particular with respect to planning, decision-making and conflict resolution, and concerning who should be seen as a legitimate rights-holder, are relevant to all those involved in the PMP.

It can be argued that there is no strict legal obligation to consult the affected populations as part of a ‘transboundary’ assessment. However, the International Court of Justice lays down that parties *should* determine what

is required in the case in question, “having regard to the nature and magnitude of the proposed development and its likely adverse impact on the environment as well as to the need to exercise due diligence” (ICJ, 2010, para. 205). UN-Habitat (2011) reminds that though in many instances, international human rights law and principles are not directly enforceable in domestic or national level courts, they have been used successfully to support domestic litigation against forced eviction.

Beyond doubt, human rights, freedoms, and entitlements are at stake and must be integrated already from the design and planning phase of a large-scale project such as a dam construction. Whether this is through the application of a human rights-based approach or less systematically may matter less than an honest acknowledgement of the legal, political, and ethical values involved. What the HRBA brings is ultimately a focus not only on the rights, but as much or more spotlight on the corresponding obligations and responsibilities of planners, decision-makers and implementing actors. The political motivation is key to ensure that the PMP planning and implementation, like with other dam buildings, duly integrates human rights. While the governments involved must assume leading roles, donors and development cooperation actors can contribute by investing in legal capacity building and assistance.

Nonetheless, there are things a HRBA cannot offer. For one thing, it will not provide certainty in a prolonged period of waiting to learn whether a proposed dam project will go ahead or not. As McCully expresses it, “[t]he pain of displacement is usually the culmination of years, sometimes decades, of waiting, hearing rumours, receiving threats. As soon as a dam is proposed, people in the reservoir area begin to suffer the withdrawal of government and private investment [...] By the time resettlement starts, the oustees are already often already much worse off than people in neighbouring areas [...] Coupled with the progressive withdrawal of services and investment is the uncertainty of not knowing whether or not the dam will actually be built, how many houses, farms and workplaces will be submerged if it is, who will be eligible for compensation, and how much compensation they will receive” (1996: 72).

The HRBA also cannot, as such, remedy how interlinked dimensions of poverty—inequality, dignity, and deprivations—influence access to the institutions and advocacy groups that can assist in enforcing the rights. This reality is further aggravated by the transboundary conditions of the PMP.

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