

Extract from:

BUILDING ON NATURE

**Area-based conservation
as a key tool for
delivering SDGs**



SDG 10 and SDG 5: Reduced inequalities, including improving gender equality

10 REDUCED
INEQUALITIES



5 GENDER
EQUALITY



Summary for policy makers

There are massive global, national and regional inequalities related to age, sex, disability, race, ethnicity, origin, religion or economic or other status. People living in remote rural areas are often particularly disadvantaged. The ways in which protected areas and OECMs are governed and managed offer a number of important opportunities to contribute to reducing social and economic inequalities, particularly through:

- Actively promoting social inclusion, particularly relating to ethnic or religious minorities, women and youth, in planning and managing effective area-based conservation initiatives
- Ensuring equal opportunities in employment directly within a protected area or OECM, or through support of associated businesses
- Making sure that access to wider benefits, such as the full range of ecosystem services and any economic benefits from tourism related to protected areas, preferentially benefit the disadvantaged in society

These benefits will not occur automatically – many inequalities are deeply embedded within societies – and will require thoughtful and sometimes gradual interventions over a long period of time. Some protected area approaches, especially but not only those related to cultural landscapes and seascapes, and extractive reserves, are particularly well designed for supporting such efforts.

What is the challenge?

We live in an unequal world, where differences in where someone is born, their skin colour, ethnicity, gender, sexual orientation and underlying health all have a huge influence on their life opportunities. While some inequalities are narrowing, others are still getting worse. In 2018 for instance, the richest 26 people in the world owned the same as the poorest half of humanity, yet billionaires are paying less in tax than they have for decades¹ and the gap between the richest and poorest is widening.²

Ethnicity has an enormous influence on life chances, with white people almost everywhere being at a dramatic advantage in terms of education, employment, home ownership and health.³ This has direct economic impacts: in the United States the median white family has 41 times more wealth than the median black family and 22 times more wealth than the median Latino family, and, again, these differences have increased over the last few years.⁴ People recognised as Indigenous or from ethnic minorities are almost everywhere at a disadvantage.

There is also huge inequality in health and the risks of early death. Societies with more inequality appear to be less healthy.⁵ A child born in one of the countries with the worst health is 60-times more likely to die than a child born in a country with the best health.⁶ In 2019, the country with the lowest life expectancy was the Central African Republic with 53 years, in Japan life expectancy was 30 years longer.⁷

There are stark contrasts between city and country. Before 1800, less than 2.5 per cent of people lived in cities, by 1900 it was 10 per cent,⁸ in 1964 two-thirds of people were still rural,⁹ but by 2007 the balance tipped, with more people living in urban areas.¹⁰ By 2014, urbanisation was above 80 per cent in Latin America, the Caribbean and North America; 73 per cent in Europe, 48 per cent in Asia and 40 per cent in Africa.¹¹ Singapore is 100 per cent urbanised, Japan 93.5 per cent, and Israel 92.1 per cent;¹² and 200,000 people migrate to cities every day.¹³ Income gaps between rural and urban dwellers are

a major incentive,¹⁴ along with a desire to increase quality of life,¹⁵ improve educational opportunities,¹⁶ and avoid climate change¹⁷ and weather-related disasters.¹⁸ Of relevance here are the dramatic differences in life chances between urban and rural dwellers. In countries like the United States¹⁹ and China²⁰ this gap is currently widening, although studies in countries like India, Vietnam and Thailand also find the rural–urban income gap narrowing over time.²¹

Gender inequality remains endemic, despite welcome signs that it is declining in many countries.²² Progress is uneven; there have been improvements in education opportunities for women and also, but more unevenly, in employment, although global stress in labour markets has reduced men’s access to employment, increasing the risk of gender conflict.²³ Violence against women is increasing in many countries,²⁴ including against politically active women.²⁵ Women whose rights are facilitated by husbands, brothers or fathers can lose property or tenure rights following migration, widowhood, divorce or desertion.²⁶

By the nature of their roles, women in rural areas are particularly impacted by degradation of natural resources and climate change. Particularly in the developing countries, women’s traditional roles usually include collection and preparation of fuelwood,²⁷ water,²⁸ fodder, medicinal herbs, fruits and seeds.²⁹ They are thus reliant on healthy ecosystems; forest degradation reduces fuelwood availability, for instance, with the time required for collection in the Himalayas having increased by an average of 60 per cent in the last quarter century.³⁰ The “invisibility” of much of the work women do means that these environmental losses are often unrecognised or ignored. If household land becomes degraded, women often need to find ways to supplement declining food production such as selling their labour or petty trading.³¹ Women in parts of Kenya can use 85 per cent of their daily calorie intake just fetching water.³² Women are mainly responsible for fuelwood collection in dry tropical forests except where there are constraints such as *purdah*,³³ and forest loss increases their work: the time needed for firewood collection in the Himalayas has



increased by around 60 per cent in 25 years because of the declining forests.³⁴

Gender issues are particularly stark in relation to land ownership and management. Many women in developing countries have no ownership or tenure rights over land or natural resources, or lose rights after widowhood, divorce or desertion.³⁵ Yet conversely, as more men migrate in search of work, women are left as the responsible head of households,³⁶ tending livestock³⁷ and engaging in commercial activities, in addition to childcare and domestic tasks.³⁸ The proportion of women farmers is gradually increasing in many places, with associated changes in the way that agriculture is practised and in how women's farming roles are perceived.³⁹ Women are often disproportionately vulnerable to climate change, including rural women in developing countries who are dependent on natural resources.⁴⁰

SDGs 10 and 5 aim to address the above inequalities, many of which are rooted in deep-seated cultural differences, some of

which have been in place for millennia. Many of the sub-goals and indicators under these SDGs are outside the scope of protected and conserved areas, including dealing with fiscal policies of governments, regulation of global financial markets, well-managed migration policies and development budgets. But there are three sub-goals for SDG 10 that have more grassroots societal implications, building on opportunities provided by well-functioning ecosystems and synergies with governance structures linked to area-based conservation. Target 10.1 aims to “*progressively achieve and sustain income growth of the bottom 40 per cent of the population at a rate higher than the national average*”. Target 10.2 is to “*empower and promote the social, economic and political inclusion of all, irrespective of age, sex, disability, race, ethnicity, origin, religion or economic or other status*”. Target 10.3 has a broad objective to “*Ensure equal opportunity and reduce inequalities of outcome...*”, with an emphasis on changing laws, which are generally outside our purview, but also on promoting supportive policies. None of these issues are central to the aims of

protected areas or OECMs, but all can be addressed through the way that they are approached and managed (and failure to take account of these issues may also cause management to fail in turn).

As for SDG 5, while all its targets could and should be addressed within the remit of effective area-based conservation, two targets stand out. Target 5.1 aims more generally to end all forms of discrimination and Target 5.5 encourages full and effective participation and equal opportunities for leadership at all levels. Making sure that personnel policies related, for instance, to staff hiring, particularly at senior level, are gender sensitive, and ensuring that women are well represented in consultation processes, management planning, equitable benefit sharing and monitoring can all help address inequalities.

How can effective area-based conservation help?

Protected and conserved areas can help to address issues of inequality in three main ways. First, by ensuring that all voices are heard, and listened to, in **participatory approaches** to planning and managing a protected area or OECM, including those social groups that are often left out of such processes. Second, by providing direct **employment** or support for local businesses that spread benefits to everyone rather than to a few. And third, by making sure that **access to wider benefits**, including a full range of ecosystem services, preferentially benefit the disadvantaged in society.

All these things are easy to say, but often hard to achieve in practice. An individual protected area manager will often find it hard to address underlying social inequalities. Community-run initiatives may favour the status quo,⁴¹ benefitting the majority but leaving ethnic or religious minorities at a disadvantage.

Participatory approaches: Giving people a voice is a critical step in addressing basic inequalities. Many governments are reluctant to provide citizens with too many opportunities to interact with officials to make

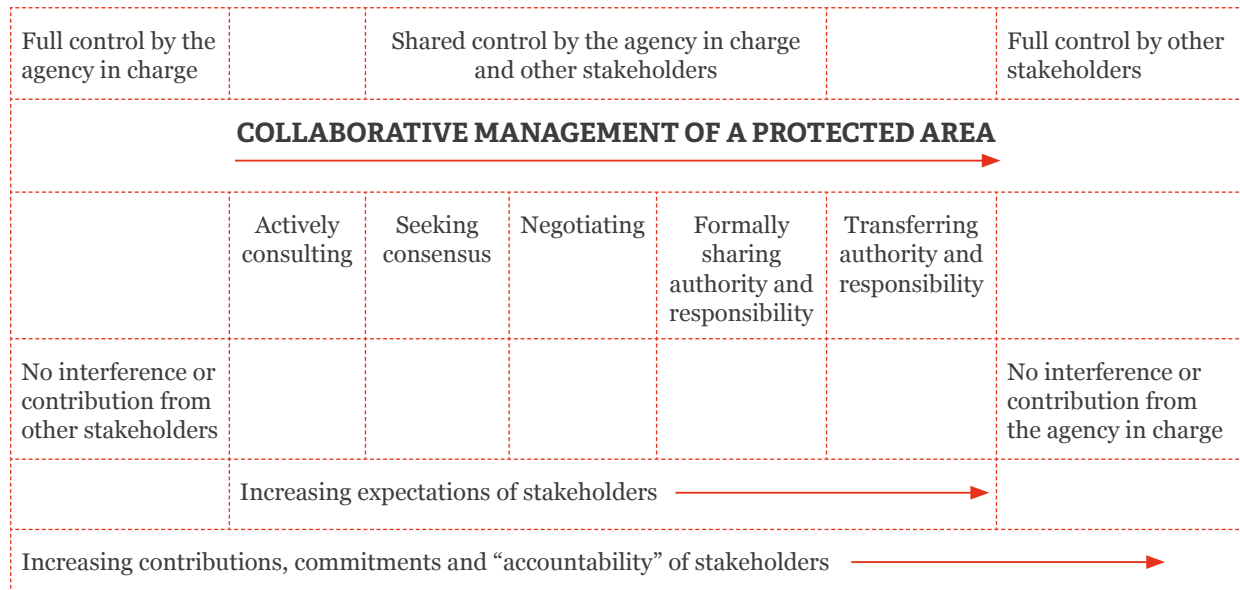
their opinions known or even play an active role in management decisions. Protected areas can provide a relatively neutral ground on which to try out such participatory approaches. Existing issues, such as access to natural resources, addressing human–wildlife conflict and managing visitors can provide a focus for such discussions, although ideally interaction should take place at planning stage.

Participation in protected area management can range from consultation to a full transfer of power to local stakeholders or recognition of different governance and management regimes, with some of the stages outlined in the figure 10/5.1.⁴² The concept of sharing power in natural resource management has been increasingly recognised⁴³ and a variety of tools developed on identifying stakeholders, ensuring that no-one gets left out, and ways in which to ensure meaningful participation in planning and management.⁴⁴ Requirements such as Free Prior and Informed Consent for Indigenous people⁴⁵ have brought a measure of legislative power behind voluntary actions. IUCN's recognition of multiple governance types in protected areas,⁴⁶ and initiatives such as the ICCA Consortium,⁴⁷ help to increase the opportunities for protected and conserved areas to play a positive role in building inclusivity into conservation messages.

The need for ecosystem management to involve women is increasingly recognised.⁴⁸ Protected areas and other similar initiatives have a number of clear opportunities to be mindful of, and supportive of, moves towards gender equality. Protected areas are often in remote areas, where deep-rooted traditions exist and where sensitive employment opportunities and approaches to stakeholder involvement can drive positive change. Protected areas and associated NGOs can also help local communities reduce gender-based violence through local empowerment programmes, and avoid inadvertently creating new causes of gender-based violence.⁴⁹

OECMs offer both new opportunities and some new challenges in that very different stakeholders will be involved in their governance and management. Efforts will sometimes be needed to strengthen governance and avoid reinforcing gender

Figure 10/5.1: Participation in management of protected areas and OECMs: a continuum



stereotypes or capture of benefits by elites; identifying the most vulnerable people, participatory analysis of the governance process and in some cases also enabling policies relating to benefit sharing and representation of women and marginalised groups.

This includes recognising and engaging women as workers within a protected area or OECM, including as managers,⁵⁰ and ensuring that they have equal opportunities in training, career advancement and other rights. Special efforts may be needed to hire women in gender unequal societies. Women-only training for rangers may be appropriate in some situations, along with inclusivity training for male protected area managers. Care may be needed to address issues of maternity leave and support for mothers such as flexible working hours,⁵¹ particularly in societies with fewer social safeguards. Bringing women in from further afield, for example as researchers, can provide positive role models, ideally linked to mentoring systems. Restoration, particularly of ecosystem services, must be gender sensitive and responsive to the interests and needs of women. And in relations with local communities near area-based conservation initiatives, attention is needed to ensure that the voices of women, and minorities, are heard during any discussions about management, rights and needs. The engagement of male champions is another important tool to tackle gender inequalities.

Employment and other actions to address poverty: Protected areas and the kinds of natural landscapes and seascapes likely to be recognised as OECMs are often in rural areas with few economic opportunities and limited educational facilities. In situations where jobs are scarce and out-migration a frequent problem, protected and conserved areas can help by providing both permanent and seasonal jobs and, perhaps even more important, can provide a focus for associated money-making activities including many forms of ecotourism, guiding, homestays, working in hotels, diving equipment hire, transport, manufacture and sale of food and other products associated with the protected or conserved area, and so on.

To some extent, these things will happen anyway if the area is successful in attracting tourists, but in other cases more active steps are needed. Research shows that many protected areas provide significant economic benefits but that these benefits do not always trickle down to the neediest. Indeed, the large majority can accrue to the richest or most powerful members of the community, particularly in those countries with weak governance and rule of law.⁵² Local community initiatives can easily be usurped by an elite group. Here, careful governance work within communities and with, variously, policy makers, judicial authorities, development agencies, local businesses and religious groups is needed to ensure that money raised benefits all sectors of society.

Active encouragement can provide added value. In Keoladeo National Park, in Rajasthan, India, the autorickshaw drivers who take people around were trained in bird identification so they can increase fees and tips. In Colombia, Parques Nacionales Naturales has a policy to include local Indigenous people amongst the rangers, providing a direct link to these communities and also some much-needed income and career possibilities. In countries like Nepal and India, a significant proportion of tourism funds go to local communities in at least some of the protected areas.

Access to ecosystem services: One way in which protected areas and OECMs can help to even out inequalities in society is through their role in conserving ecosystem services and ensuring that these reach the neediest. Benefits can either come directly through access to such services or in a limited number of cases through direct financial benefits through Payment for Ecosystem Services (PES) schemes. Protected areas can help provide clean water, disaster risk reduction and important aspects of food and water security (see SDG 2, SDG 6, etc.). For example, Lake Skadar is the largest lake in the Balkans and is a transboundary protected area between Montenegro and Albania, including Skadarsko Jezero National Park in Montenegro.⁵³ It provides water for coastal Montenegro.⁵⁴ Honey production produces around 80 tonnes of honey a year, with annual value of almost US\$1 million.⁵⁵ Fish production is about 80 kg/ha/year and supports about 400 fishers who harvest bleak (*Alburnus spp.*) and carp (*Cyprinus carpio*), with a value of around US\$2.1 million a year. Some of the catch is used for value-added products, mainly canned or smoked fish with a production value of US\$1.6 million a year.⁵⁶ 300 families are estimated to depend indirectly on the fishing catch.⁵⁷

Examples of effective area-based conservation that support SDG 10 and SDG 5

The most important approaches and tools to address social inequality involve participation, inclusivity and human rights, including gender rights. They can – and arguably should – apply to virtually any type of protected and conserved areas, under any governance models, although it might be hoped that those controlled directly by local communities, and protected areas based in cultural landscapes or around the principle of sustainable use (IUCN categories V and VI) might be amongst the most likely to help address inequalities. There is, as far as we know, no quantitative evidence of this as yet.

Indigenous lands and protected areas: how area-based conservation reduces economic, political and gender inequities

Madidi National Park and surrounding Indigenous territories, Bolivia



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“Forests are not only important for our income, without them we would disappear as a people.”

– Constantino Nay, President of the Tacana People’s Indigenous Council –

Background: The Madidi region in north-western Bolivia extends from the glacier-covered peaks of the high Andes down 6,000 metres to the tropical rainforests of the Tuichi and Beni rivers. Madidi itself supports at least 5,500 species of plants, almost 9 per cent of the world’s bird species (1,028), 254 mammals, 333 fish, 119 amphibians, 113 reptiles and more than 1,809 butterfly varieties. The Madidi region is a priceless biodiversity jewel and led the government of Bolivia to establish, in the 1990s, the Madidi, Pilón Lajas and Apolobamba protected areas.⁵⁸

Sustainability challenge: Though Madidi national park covers 18,958 km², the resident white-lipped peccaries and jaguar

do not think it is large enough. Camera trapping by Wildlife Conservation Society (WCS) and the National Protected Area Service (SERNAP) showed that these wide-ranging species also spend time foraging for food outside the park in lowland forests that are the traditional territory of the Tacana Indigenous people. The same is true for Andean bear and Andean condor at higher altitudes in the park.

Towards the end of the 1970s, a new development policy was promoted by the Bolivian government in northern La Paz, known as “The March Towards the North”. This encouraged and enabled the migration of colonisers from the altiplano highlands to the Amazonian lowlands resulting in an increase in deforestation to produce timber, crops and cattle. This land grabbing continued for 20 years and was fragmenting the landscape, creating barriers to wildlife movement.



Co-benefit
SDGs



David Wilkie,
Lilian Painter
and **Rob Wallace**
(Wildlife
Conservation
Society – WCS).



Case study

In 1990, the Indigenous peoples of the lowlands mobilised and the Confederation of Indigenous Peoples of Bolivia (CIDOB) led “The March for Territory and Dignity” where hundreds joined a procession from Trinidad, through Beni, all the way to La Paz. The march was a clear public statement to the government demanding legal recognition of their lands and the promulgation of laws recognizing the territorial, social and cultural rights of the lowland Indigenous peoples. It was at this time that the Tacana, Leco and Tsimane Indigenous peoples demanded formal rights over their ancestral territories.

Sustainability solution: In 1992, the Tacana Indigenous People’s Council (CIPTA) was formed as the representative body of the Tacana people. The Leco formed their representative organisation (CIPLA) in 1996. These Indigenous organisations were the first time either group had attempted to make decisions collectively regarding defense of their rights. Prior to this, decisions were all made at the extended family level. With the technical assistance of WCS, the Tacana and the Leco formalised their organisations based on democratic principles of transparency, accountability and equitable representation. In terms of gender and intergenerational issues, women are increasing their participation in leadership positions and youth participation is being promoted to increase their voice. In 1997, CIPTA and CIPLA submitted requests to INRA (the National Agrarian Reform Institute) to secure legal land tenure over their ancestral territory.

Soon after, both the Tacana and the Leco began the complicated process of planning how they would manage and use their territories once they secured title from the government. This involved: a) participatory assessments of existing land and resource use; b) discussions of how to partition their territory into different land-use zones; c) decisions on how to manage access and use of natural resources; and d) development of rules for operating community enterprises based on sustainable resource use. As people engaged in this participatory planning process, each gained a practical understanding and hands-on experience in democracy building, and learned new

skills in spatial planning, conflict resolution, negotiation and reaching consensus.

It was not until 2003 that the government formally recognised 50.6 per cent (389,303 ha) of the original Tacana territorial demand as a Tierra Comunitaria de Origen (TCO – i.e. ancestral community land). A portion of the TCO (39,430 ha) overlaps Madidi National Park. In 2008, the Lecos obtained legal title from INRA. Their TCO currently covers 238,162 ha (36.4 per cent) of their original territorial demand, of which 231,000 ha is within Madidi National Park.

Because both ancestral community lands partially overlap with Madidi National Park, both Indigenous organisations work closely with the national protected areas services to ensure that park regulations respect the rights of the Tacana and Leco and that the access and use norms that are part of each Indigenous people’s territorial management plan support conservation of the park’s ecosystems, plants and animal species. This cooperation has also resulted in conservation efforts that have reduced inequalities and secured sustainable livelihoods of Indigenous people in the area.

Furthermore, all TCOs are held under collective title and cannot be bought or sold and their management is founded on a strong cultural connection to nature and long-term, sustainable use principles. As such they should rightly be seen as Other Effective area-based Conservation Measures (OECMs) or could easily be categorised as IUCN category VI protected areas.

Today CIPTA oversees the activities of 18 community enterprises that generate revenue from sale of the skins and meat of sustainably harvested spectacled Yacaré caiman (*Caiman yacare*), commercial fishing of invasive *Arapaima* fish, gathering and sale of Amazonian fruits, sustainable timber production, wild cacao gathering, handicraft production and ecotourism. A diversity of enterprises is important to the Tacana because: a) it ensures that all segments of society benefit, b) market down-turns are unlikely to happen to all enterprises at the same time, and c) though any one enterprise may not be particularly lucrative, together

they generate a large stream of revenue such that the average household has a net income of US\$3,349 per year of which 52 per cent is derived from sustainable natural resource use, including both activities linked to markets as well as subsistence use. In terms of gender, the participation of women in these conservation-linked enterprises accounts for 40 per cent of household income, which more than doubled between 2000 and 2012.

Similarly, as part of CIPLA's Life Plan for the TCO, they explicitly included rules as to how benefits generated from the sustainable use of their territory would be equitably distributed amongst Leco families.

Respecting and protecting the legitimate territorial rights of the Tacana, Leco, T'simane and Mosen is not only ethically appropriate, it ensures that Madidi National Park is effective in conserving the peccaries, jaguar (*Panthera onca*), lowland tapir (*Tapirus terrestris*), harpy eagle (*Harpia harpyja*) and other wildlife that spend time both within the protected area and in the Indigenous peoples' territories.

Since securing legal title and implementing territorial natural resource management plans, both Tacana and Leco families are better off, deforestation is significantly lower than in adjacent areas, CIPTA and CIPLA have successfully developed democratic governance systems for monitoring the state of, and for sustainably using, the natural resources within their lands and waters. Lastly, both CIPTA and CIPLA now play an active role in guiding the management of Madidi National Park and by doing so have gained the respect of the government as effective community organisations increasing their political power to engage regional and national authorities and influence decisions that affect the lives of the Tacana and Leco.

Lessons learned: When Indigenous organizations successfully mobilize and achieve the formal recognition of their ancestral lands and organizations by the state this dramatically increases the authority of previously marginalised communities to decide their current and future development pathways. There is ample evidence that



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Indigenous people's governance of their territories substantially increases the spatial scale of OECMs and strengthens the conservation and sustainable use of collaboratively managed state protected areas. Effective area-based conservation that empowers Indigenous people is a key for achieving conservation that is durable and resilient to climate change. It is also the foundation of sustainable development, equitable benefit sharing, integration of under-represented groups in conservation and development decision-making and delivering on SDG 10.

Case study

Improving women's lives through conservation

Terai Arc Landscape and its network of protected areas, Nepal



Co-benefit
SDGs



Smriti Dahal
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Biogas greatly reduces household consumption of firewood, women's workloads and indoor air pollution, improving women's lives while enabling degraded forests to recover.

Background: The forests and grasslands of the Terai Arc harbour populations of tiger (*Panthera tigris*), one-horned rhinoceros (*Rhinoceros unicornis*) and Asian elephant (*Elephas maximus*). Initially conservation efforts were focused on isolated protected areas, but realising this approach was not adequate to conserve these wide-ranging species, in 2001 a landscape approach was introduced with integrated conservation strategies to benefit people, nature and wildlife. The Terai Arc Landscape straddles the Nepal/India border, connecting isolated protected areas through forest corridors and buffer zones so that wildlife can move, disperse and flourish. The Nepal portion of the landscape (referred to hereafter as TAL) covers over 24,700 km² in the low-lying southern part of the country and the Churia range, stretching from the Bagmati river in the east to the Mahakali river in the west.

The current TAL goal is to conserve the ecosystems of the Terai and Churia hills in order to ensure integrity of ecological, economic and socio-cultural systems and communities. TAL includes six protected areas and associated buffer zones, and seven forest corridors. TAL is home to more than

7.5 million people, some of whom live in rural areas adjacent to the protected areas and in the seven corridors.⁵⁹ The Terai is the “rice basket” of Nepal; the main sources of income for households are agriculture, animal husbandry, employment and remittances. Forests serve as a safety net for many rural households in the landscape, particularly poor families who depend on natural resources.

Sustainability challenge: In 2019, Nepal was ranked 148th out of 189 countries in the world by the Human Development Index (HDI), with 22.3 per cent of the population estimated to be vulnerable to multidimensional poverty. The same report outlines how its Gender Development Index was in the lowest of five groups worldwide with little equality in HDI achievements of women compared to men. For example, on average men had 6.4 years of schooling while women had only 3.6 years; similarly, average per capita income for men was US\$3,510 but only US\$2,113 for women. Women are also often more vulnerable to climate change than men.⁶⁰

Men and women use forests in different ways in TAL. Women are highly dependent on forest resources for the wellbeing of their families, including firewood for cooking, wild foods, medicinal plants, fodder for their livestock, and water. Collection of firewood and water is extremely time-consuming and laborious; women may also face risk of human–wildlife conflict and gender-based violence while collecting forest resources. Indoor air pollution from cooking over wood fires often causes respiratory infections in women and young children. Overharvesting of firewood has been a major threat to the forests of the Terai Arc, causing forest degradation. While women understand the importance of conserving forests and their resources, they are often constrained from fully engaging in decision-making over their forests due to a strongly patriarchal culture that adversely affects their position in society and results in inequitable distribution of rights, resources and power.⁶¹ They also have limited livelihood options, and often have poor access to healthcare. As men migrate out to cities and other countries in search of employment, many rural households have been headed by women over the last few decades. This has given women additional responsibilities of running family farms, making household decisions, and increasingly, taking on roles in community forest management.⁶² Recently, due to the COVID-19 pandemic many men have lost their jobs and returned home; the loss of remittances for many households is straining household finances. Increased food insecurity has been reported because of the pandemic.

Conservation solutions:

Implementation of the official TAL Strategy is undertaken by the Government of Nepal and many non-governmental organisations, community-based organisations and donors. These include local community forestry and buffer zone organisations, the Federation of Community Forest Users Nepal (FECOFUN), WWF, CARE Nepal, the National Trust for Nature Conservation, and the US Agency for International Development (USAID)'s Hariyo Ban Program. Engagement with local communities and community stewardship of forests and other natural resources in TAL is a core component of the TAL Strategy. There is a particular focus on improving

the livelihoods and participation of forest-dependent women and other marginalised groups through a range of sustainable interventions and strategies developed from evidence-based learning. Given the importance of natural resources for women, a strong focus on gender equality and women's empowerment makes sense.

Activities at community level in critical forest corridors and buffer zones include promotion of modern farming technologies to contribute towards increasing farm productivity and household food security. To reduce fuelwood dependency and relieve unsustainable pressure on forests, partners promote alternative energy and energy efficiency including biogas and improved cookstoves. This cuts the time women spend collecting fuelwood and cooking, reduces the risk of encounters with wild animals, and improves their health by reducing their exposure to indoor air pollution. Slurry from biogas can also be used as fertiliser on fields and kitchen gardens. If latrines are introduced with biogas units, household health is improved through better sanitation. Over the years, WWF has supported the installation of nearly 25,000 household biogas units in TAL.

In many places, TAL partners have supported improved water supplies by piping water from clean sources to villages, reducing diarrhoeal diseases and saving women's time and work in fetching water. In some locations, support has included testing for naturally occurring arsenic, and water treatment where needed. Improved water supply interventions are combined with forest management and restoration in degraded watersheds to help ensure water security. WWF Nepal has worked with female community health volunteers and health partners to develop linked health and environment messages, promote improved health practices and increase women's access to health services.

Local-level participatory climate risk assessments have revealed that community water supplies, agricultural livelihoods, forests, settlements and infrastructure often face risk from the effects of increased drought, floods, landslides and forest fires due to more extreme weather events induced

Case study

by climate change. Climate-smart watershed restoration and management, adapted agricultural practices, forest fire control interventions and other measures have been supported to enhance community resilience and adaptation, with particular focus on building resilience of women and other vulnerable groups.

By reducing time spent collecting firewood and water, women have more time for household chores, childcare, livelihood activities and work in their communities, and girls have more time for education. Solar lighting helps rural scholars study in the evenings. TAL partners also promote vocational training so that forest-dependent women and other marginalised groups can acquire new skills, enabling them to seek employment or establish small businesses. Low-interest loans through cooperative-run micro-credit schemes help finance women-run businesses, such as tailoring, poultry-raising, and setting up small shops and beauty salons. Skills training and micro-loans can help lift some of the poorest women and their families out of poverty and reduce pressure on forests.

Partners work closely with women's groups and promote women's participation in forest management and governance. Over the years, they have built women's capacity to take part in community forest and buffer zone management by: increasing their knowledge and understanding of their rights; developing their confidence to speak up in meetings, claim equitable benefits, and take part in decision-making about their resources; and building administrative and leadership skills for office-bearing positions in their groups. In 2017, over 600 women who had been empowered through leadership roles in community forestry user groups (CFUG) went on to run for election under Nepal's 2015 Constitution and won seats at local government level.

This gender-sensitive approach is backed up by government policy. The 2015-2025 TAL Strategy and Action Plan states that there will be increased representation of women and marginalised people in strategy implementation, management, administration and governance; all decision-

making bodies will actively engage women and marginalised groups for equitable representation; and gender-based violence and hardship related to natural resource management will be addressed.⁶³ Nepal has a very strong community forestry movement, with over 22,000 CFUGs and other community based forest management groups nationwide, and there are many CFUGs in the TAL corridors. Gender measures for CFUGs are supported by government policy: the Community Forest Development Guideline requires 50 per cent representation of women on the executive committee of a CFUG, and either the president or the secretary must be a woman. The bank account of the CFUG needs to have the signature of either the president or the secretary and the treasurer; of these two signatories, at least one of them must be a woman. In addition, 35 per cent of CFUG income should benefit the poorest members of the group.

Buffer zones are subject to the Government of Nepal's Buffer Zone Management Regulation and Guideline. Communities living in buffer zones have some sustainable use rights to natural resources, and benefit-sharing of 30-50 per cent of protected area revenue. Buffer zone communities form buffer zone user groups (BZUGs); this provides a forum through which communities engage in formal dialogue with park authorities and play an active role in natural resource conservation. Each BZUG must have at least one woman among the three Executive Members of the group: the chair, secretary or treasurer. At the next level up, the buffer zone users committee (BZUC) represents a group of BZUGs within part of the buffer zone. Two members of each BZUG are elected to the BZUC (one woman and one man). Each BZUC has nine to 11 executive members, including at least three women. A higher committee for the whole buffer zone includes the chairs from each BZUC and is chaired by the protected area warden.

Meaningful participation by women has increased in forest user groups in buffer zones and forest corridors in TAL, though there is still room for improvement. Many CFUGs are using governance tools to increase participation of women and marginalised groups, promote transparent



Raj Kumari Pariyar from Madi village near Chitwan National Park. Since she installed biogas and stopped cooking over an open fire her health has improved and she has more time for farming.

practices and ensure equitable sharing of the benefits generated from natural resource management. Women-led user groups are engaged in forest restoration and management, and young women participate in patrolling and monitoring community forests. At the same time, as women's participation in forest management and income-generating activities increases, they may be at greater risk of gender-based violence (GBV). Measures are being taken to avoid additional risk of GBV, and where possible to reduce existing risk.

Lessons learned: Gender cuts across many facets of development in TAL, with important implications for conservation. Mainstreaming of gender equality through meaningful participation of women in decision-making is imperative for both improving the lives of women and achieving sound community-based forest management, an essential element for sustaining the important biodiversity of the TAL landscape.

While many women's lives have been improved in TAL through gender-sensitive interventions, achievements in gender equality are still patchy. More investment is needed in policy interventions and to ensure implementation of existing provisions on women's empowerment in order to consolidate and scale up successful approaches.

Reducing poor rural women's workloads is an essential first step to empowerment

and participation. Additional labour-saving measures, like alternative energy, improved water supplies and innovative agricultural technologies for women, are required for women to have more time for household tasks, realise their income-generating potential, and take on leadership roles in their communities and forests.

Wildlife conservation can add value through generating revenue for women and reducing gender inequalities. For example, groups of women in several areas across the TAL have developed homestays for tourists to experience local culture and view wildlife, birds and natural bounty in the landscape.

Gender-based violence (physical, verbal, etc.) can be a serious barrier for women to become more involved in forest management; awareness raising, mainstreaming GBV prevention in local policies, encouraging women to work together on the issue, linking them with specialist organisations tackling GBV, and engaging men and decision-makers are important strategies for reducing GBV in natural resource management.⁶⁴

Male champions and decision-makers play crucial roles as change agents in creating an enabling environment to empower women and encourage their participation. Engaging men to become champions is critical at multiple levels – in communities, community-based organisations, government and non-government organisations.

Case study



Co-benefit
SDGs



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Dzanga-Sangha



Reducing local inequalities through protected area management

Dzanga-Sangha Protected Area, Central African Republic



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Background: In the south-western corner of the Central African Republic, a mosaic of ecosystems, including rivers, streams, marshlands and grassy glades called *bais*, supports critical populations of rare and endangered species including forest elephants (*Loxodonta cyclotis*), western lowland gorillas (*Gorilla gorilla gorilla*) and several antelope species. Here lies the Dzanga-Sangha Protected Areas (DSPA) Complex, covering an area of about 4,500 km², where WWF and its national conservation partners are committed to working with the local Indigenous people in the safeguarding of their forest. The importance of this landscape was recognised through the creation of the Dzanga-Sangha Protected Area Complex in 1990 and its subsequent integration into the Sangha Trinational (TNS) in 2000, a transboundary landscape and UNESCO World Heritage site (2012) which also includes the protected areas of Lobeke (Cameroon) and Nouabale Ndoki (Republic of the Congo).

Large mammals such as forest elephants, gorillas, forest buffaloes (*Syncerus caffer nanus*), giant forest hogs (*Hylochoerus meinertzhageni*), chimpanzees (*Pan troglodytes*), and bongos (*Tragelaphus*

eurycerus) are found in very high densities in Dzanga-Sangha. At the Dzanga saline, around 5,000 elephants have been individually identified over the past 20 years and about 2,000 individuals visit the bai (saline) at least once a year. Permanent gatherings of dozens of elephants, buffaloes, bongos and gorillas in the Dzanga bais offer a unique wildlife spectacle and constitute the main international appeal of the DSPA for tourism.

Sustainability challenge: DSPA presents unique potential to couple conservation and sustainable development in partnership with, and for the benefit of, local Indigenous people (over 40 per cent of a population of 8,000 people, according to a 2012 census). Promoting the local development of vulnerable populations while ensuring the conservation of wildlife has been a stated objective of the proponents of the DSPA since the beginning of the 1990s,⁶⁵ but safeguarding the rights and furthering the sociocultural preferences of the important Indigenous people of Dzanga-Sangha has remained a sensitive issue ever since. Political instability and a lack of effective Indigenous community representation means that discrimination and marginalisation, including limited access to healthcare and

education, and food insecurity continue to be critical challenges.

Conservation solution: Securing basic services, sustainable income generating activities, and collaborative management of natural resources are critical to resilient local livelihoods and key components of WWF's inclusive conservation approach in Dzanga-Sangha.

WWF has been present in Dzanga-Sangha for 30 years, despite the political instability in the country. Together with local and international partners, WWF is working with local communities to strengthen conservation in the DSPA and surrounding landscape through a novel approach that brings together traditional conservation measures and protected area management, with sustainable development, healthcare, education and human and Indigenous rights. This work is supported by a diverse array of partners, including the German government (BMZ and KfW), the European Union, the US Fish and Wildlife Service and private foundations. To ensure long-term engagement and sustainability, two funding schemes have been established: The Krombacher Rainforest Trust Fund as well as the Sangha Tri National Trust Fund.

In Dzanga-Sangha, five main pillars promote conservation and the reduction of inequality:

Income generation: The local population benefits from tourism with 40 per cent of revenues going to support local non-profit associations. In addition, many local and Indigenous people are employed by the park, especially as part of the primate habituation programme.

Strengthening Indigenous culture: An Indigenous youth group has been created and provided with skills and opportunities to actively participate in the protection of their cultural and natural heritage and the defence of their rights. A central mission is to support the intergenerational transmission of traditional knowledge.

Promoting Indigenous and human rights: A Human Rights Centre has been established. The objectives of the Centre are to provide

legal assistance and conflict resolution support to the local population and in particular to Indigenous BaAka, and to raise awareness of Indigenous and human rights in the region. The Human Rights Centre also assists the Indigenous population in obtaining birth certificates, which will enable them to fully exercise their legal rights, including access to government services, the right to vote, freedom of movement, etc.

Promoting education: Teachers in local schools are supported by the park. In collaboration with two local partners, two student residences have been built, enabling BaAka children and youth from the villages to attend secondary school in the main town, Bayanga. There is an urgent need to promote continuing education among the BaAka, as only two BaAka have completed their secondary education, obtained their baccalaureate and are now studying at Bangui University.

Access to healthcare: A comprehensive health project has been launched in collaboration with local partners. The project includes strengthening existing rural health centres and setting up a mobile unit to make healthcare and preventive health education accessible to the most marginalised BaAka communities.

Key lesson learned: WWF's experience in Dzanga-Sangha demonstrates the power of inclusive conservation and bottom-up approaches, where local communities are central partners in project design and implementation. Community engagement is a critical factor in sustainable conservation for the benefit of both people and nature, with a good example being the successful Indigenous youth group Ndimba Kali. The permanent platform that has been created through DSPA provides a crucial governance framework for stakeholder engagement and funding opportunities to support communities, address inequalities, and ensure conservation impact. Critical next steps include addressing gender inequalities through integrated programme development, employment opportunities, and enhanced engagement of women in project design and implementation.

Case study

10 REDUCED INEQUALITIES



Co-benefit
SDGs

2 ZERO HUNGER



6 CLEAN WATER AND SANITATION



8 DECENT WORK AND ECONOMIC GROWTH



11 SUSTAINABLE CITIES AND COMMUNITIES



13 CLIMATE ACTION



15 LIFE ON LAND



16 PEACE, JUSTICE AND STRONG INSTITUTIONS



Tracey Williams and Linda Krueger
(The Nature Conservancy).

The Nature Conservancy
Protecting nature. Preserving life.

Establishment of a protected area empowering Indigenous people

Thaidene Nënë Indigenous Protected Area, National Park Reserve, Territorial Protected Area and Wildlife Conservation Area, Canada



© PAT KANE

The living connection between land and people, between water and land, between forest and barrens makes Thaidene Nënë a National Treasure of Canada. Carrying these relationships into the future, the ecological integrity and Dene way of life of Thaidene Nënë will be a living legacy for all, where the Łutsël K'é Dene First Nation and the Parks Canada Agency/GNWT will welcome the world.

– Thaidene Nënë Establishment Agreement –

Description of the site: In August 2019, the Łutsël K'é Dene First Nation (LKDFN) signed agreements with Parks Canada⁶⁶ and the Government of the Northwest Territories (GNWT)⁶⁷ to create a new 26,376 km² protected area called Thaidene Nënë, “Land of the Ancestors”,⁶⁸ in the heart of their traditional homeland in the Northwest Territories. Together with the adjacent Thelon Wildlife Sanctuary, the Thaidene Nënë National Park Reserve and Territorial Protected Area and Wildlife Conservation Area protect an ecological system that is one of the largest terrestrial protected area zones in North America. Thaidene Nënë is now protected under Dēnesųlinē [LKDFN], federal and territorial law. All three governments will

work together to manage the Thaidene Nënë protected areas, ensuring that Indigenous knowledge and culture are the foundation of protecting the globally significant ecosystem that provides habitat for grizzly bears, wolves, moose and muskox, and the critical winter ground for herds of barren ground caribou (*Rangifer tarandus groenlandicus*).

Sustainability challenge: Although the First Nation had historically resisted the creation of a formal protected area, the recent discovery of diamond and mineral resources in the territory created a development boom that posed new threats to the traditional lands, waters and wildlife for the Łutsël K'é Dene. These development pressures challenged the LKDFN's ability to manage its lands, particularly when coupled with the risks of climate change. In 2000, Chief Felix Lockhart, concerned about this industrial development in the traditional territory, initiated discussions with Parks Canada about the creation of a potential National Park Reserve. The challenge and the vision for Thaidene Nënë was to construct a governance framework for the protected area that would provide the legal and economic



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empowerment for – and be informed by – Indigenous knowledge and stewardship.

Key benefits: The new protected area encompasses the core of the traditional homeland of the Łutsël K'é Dene – areas that include sacred sites and other places of critical cultural and sustenance values for the Nation. Most importantly, the protected area's Establishment Agreements call for Canadian and LKDFN governments to collaborate in the management and operation of Thaidene Nënë, and explicitly aim to protect and promote Łutsël K'e Dënesųłiné culture. This will allow the First Nation to realise its vision of governance, allowing for the continuation of an Indigenous system of intergenerational transmission of knowledge and human connection with the land to inform stewardship and management decisions and policy. The community has begun to set its own agenda to meet its needs for economic opportunities. The park enables them to ensure clean water, with a large portion of the protected area covering a freshwater area of Great Slave Lake, the deepest freshwater area in North America; as well as work to preserve sustainable food sources. The community

will meet these needs by creating its own plans, informing multi-party management plans in a meaningful way, and by creating and enforcing its own laws. The Agreements guarantee that Dënesųłiné knowledge be used to make decisions and to develop interpretation and promotional materials for the park, and to protect sacred places and document heritage resources.

While tourism is envisioned as an important opportunity for the park, before visitors enter Thaidene Nënë they will have to register and complete an orientation programme so that they can learn about safety and how to properly respect the land they are visiting. They will also be required to obtain necessary permits and licenses, to be approved by the Management Board.

The protected area provides additional opportunities to promote the use of the Dënesųłiné language, promote the Dene way of life, and ensure the history and culture of the Łutsël K'é Dënesųłiné are shared across Canada and globally.

Case study

Business case: The protected area is not just about biological and cultural conservation, but it is also about promoting a viable economic future for the Łutsël K'é. Thaidene Nënë will foster sustainable economic growth by building park infrastructure in the home community of Łutsël K'é', bringing new stewardship and management jobs to the community, and encouraging ecotourism to the region.

The Establishment Agreements prioritise training and employment for Łutsël K'é Dënesųłiné people and maximising economic opportunities for Łutsël K'e Dënesųłiné businesses. Park staff will be chosen in part for their knowledge of Łutsël K'e Dënesųłiné culture, familiarity with the Dënesųłiné language, knowledge of Thaidene Nënë and how to travel and use the land, and community awareness. Construction of infrastructure – including a visitor and heritage centre, administrative offices for park management, and storage for historical and cultural information and objects – will provide opportunities for rental income, as LKDFN expects to own these facilities and to rent space on a long-term basis to Parks Canada and GNWT.

LKDFN has also established a CA\$30 million trust fund to support its management and operation responsibilities in Thaidene Nënë. The Trust will provide a long-term revenue stream that will be instrumental for achieving stable operational, stewardship and management objectives set for Thaidene Nënë by LKDFN.

Lessons learned: Establishing the Thaidene Nënë protected area could only become a viable solution for its most invested Indigenous human community once their leadership, voice and traditional knowledge were recognised and prioritised in all aspects of the management, planning and economic activity in the park. The Establishment Agreements for the park treat LKDFN as a legitimate government with treaty rights and deep knowledge and connection to the landscape, and thus permit the creation of an area that enhances the leadership and authority of the local community and creates a more effective vehicle for multiple values to be preserved and protected in cultural and biodiversity conservation.

Next steps: The newly created LKDFN TDN Strategic Plan started implementation in 2020. This includes creating the visitor orientation programme and related infrastructure.

Endnotes

- 1 Lawson, M., Chan, M.K., Rhodes, F., Parvez Butt, A., Marriott, A., Ehmke, E., Jacobs, D., Seghers, J., Atienza, J. and Gowland, R. 2019. *Public Good or Private Wealth*. Oxfam, Oxford.
- 2 Lawson, M. et al. 2019. Op cit.
- 3 See for example <https://www.ethnicity-facts-figures.service.gov.uk/> for UK statistics, accessed 10 March 2020.
- 4 <https://inequality.org/facts/racial-inequality/#racial-wealth-divide> accessed 5 March 2020.
- 5 Cushing, L., Morello-Frosch, R., Wander, M. and Pastor, M. 2015. The haves, the have-nots, and the health of everyone: The relationship between social inequality and environmental quality. *Annual Review of Public Health* **36**: 193-209.
- 6 <https://ourworldindata.org/global-inequality-of-opportunity> accessed 5 March 2020.
- 7 Roser, M., Ortiz-Ospina, E. and Ritchie, H. 2019. Life expectancy. *Our World in Data*. <https://ourworldindata.org/life-expectancy> accessed 5 March 2020.
- 8 Ponting, C. 1991. *A Green History of the World*. Sinclair-Stevenson, London.
- 9 UNFPA. 2007. *State of World Population 2007: Unleashing the Potential of Urban Growth*, UNFPA, New York.
- 10 United Nations, Department of Economic and Social Affairs, Population Division. 2014. *World Urbanization Prospects: The 2014 Revision, Highlights (ST/ESA/SER.A/352)*.

- 11 UN. 2014. Op cit.
- 12 Tollin, N. and Hamhaber, J. 2016. Op cit. *Sustainable Urbanization in the Paris Agreement. Comparative review for urban content in the Nationally Determined Contributions (NDCs)*. United Nations Human Settlements Programme, Nairobi.
- 13 DNV GL AS. 2015. *Global Opportunity Report 2015*. DNV GL AS, Høvik, Oslo.
- 14 Lucas, R. 2015. Internal migration in developing economies: An Overview, *KNOMAD Working Paper 6*, May 2015.
- 15 Andersen, L.E. 2002. Rural-urban migration in Bolivia. Advantages and disadvantages. Instituto de Investigaciones Socioeconómicas. La Paz, Bolivia.
- 16 Clark, W.A.V. and Maas, R. 2015. Interpreting migration through the prism of reasons to move. *Population, Space and Place*. **21**: 54-67.
- 17 Brown, O. 2008. *Migration and Climate Change*. International Organization for Migration, Geneva.
- 18 Internal Displacement Monitoring Centre. 2016. *Global Estimates 2015: People displaced by disasters*. Geneva.
- 19 Hendrickson, C., Muro, M. and Galston, W.A. 2018. *Countering the Geography of Discontent: Strategies for left-behind places*. Brookings Institution, Washington, DC.
- 20 Li, S., Sato, H. and Sicular, T. 2013. *Rising inequality in China: Challenges to a harmonious society*. Cambridge University Press.

- 21** Imai, K.S. and Malaeb, B. 2018. *Asia's rural-urban disparity in the context of growing inequality*. IFAD Research Series 27. International Fund for Agricultural Development, Rome.
- 22** Dorius, S.F. and Firebaugh, G. 2010. Trends in global gender inequality. *Social Forces* **88** (5): 1941-1968.
- 23** Seguino, S. 2016. Global trends in gender equality. *Journal of African Development* **18**: 1-30.
- 24** Verma, A., Qureshi, H. and Kim, J.Y. 2017. Exploring the trend of violence against women in India. *International Journal of Comparative and Applied Criminal Justice* **41**: 1-2, 3-18. DOI: 10.1080/01924036.2016.1211021
- 25** Krook, M.L. 2018. Violence against women in politics: a rising global trend. *Politics and Gender* **14**: 673-701.
- 26** Lastarria-Cornhiel, S., Behrman, J.A., Meinzen-Dick, R. and Quisumbing, A.R. 2014. Gender equity and land: towards secure and effective access for rural women. In: A.R. Quisumbing, R. Meinzen-Dick, T.L. Raney, A. Croppenstedt, J.A. Behrman et al. (eds.) *Gender in Agriculture: Closing the knowledge gap*. Springer, FAO and IFPRI, Dordrecht, pp. 117-144.
- 27** Colfer, C.J.P., Elias, M. and Jamnadass, R. 2015. Women and men in tropical dry forests: a preliminary review. *International Forestry Review* **17** (s2): 70-90.
- 28** UNDP, Gender and Poverty Reduction. http://www.undp.org/content/undp/en/home/ourwork/povertyreduction/focus_areas/focus_gender_and_poverty.html accessed 12 January 2017.
- 29** Belobo Belibi, M., van Eijnatten, J. and Barber, N. 2015. Cameroon's community forests program and women's income generation from non-timber forest products. In: C. Archambault and A. Zoomers (eds.) *Gender Trends in Land Tenure Reforms*. Routledge, London, pp. 74-92.
- 30** Baland, J.M. and Mookherjee, D. 2014. *Deforestation in the Himalayas: myths and reality*. SANEE Policy Brief, Kathmandu.
- 31** Verma, R. 2001. *Gender, Land and Livelihoods in East Africa: Through Farmers' Eyes*. International Development Research Center, Ontario, Canada.
- 32** UNDP, Gender and Poverty Reduction. http://www.undp.org/content/undp/en/home/ourwork/povertyreduction/focus_areas/focus_gender_and_poverty.html accessed 12 January 2017.
- 33** Colfer, C.J.P. et al. 2015. Op cit.
- 34** Baland, J.M. and Mookherjee, D. 2014. Op cit.
- 35** Lastarria-Cornhiel, S. et al. 2014. Op cit.
- 36** Williams, A. 2003. *Ageing and Poverty in Africa: Ugandan Livelihoods in a Time of HIV/AIDS*. Ashgate Publishing, Farnham, UK.
- 37** Asamba, I. and Thomas-Slayter, B. 1995. From cattle to coffee: Transformation in Mbusyani and Kyvaluki'. In: B. Thomas-Slayter and D. Rocheleau (eds.) *Gender, Environment and Development in Kenya: A Grassroots Perspective*. Lynne Rienner Publishers, Boulder, CO and London, UK: p.116.
- 38** Speranza, C.I. 2011. *Promoting Gender Equality in Responses to Climate Change*. Discussion paper 2/2011. German Development Institute, Bonn.
- 39** Agarwal, B. 2015. Food security, productivity and gender inequality. In: R.J. Herring (ed.) *The Oxford Handbook of Food, Politics and Society*. Oxford University Press, Oxford: 273-301.
- 40** UNFCCC. 2019. *Differentiated impacts of climate change on women and men; the integration of gender considerations in climate policies, plans and actions; and progress in enhancing gender balance in national climate delegations: Synthesis report by the secretariat*. FCCC/SBI/2019/INF.8.
- 41** Ojha, H.R., Ford, R., Keenan, R.J., Race, D., Carias Vega, D., Baral, H. and Sapkota, P. Delocalizing community engagement in natural resources governance. *World Development* **87**: 274-290.
- 42** Borrini-Feyerabend, G. 1996. *Collaborative Management of Protected Areas: Tailoring the approach to the context*. IUCN, Gland, Switzerland.
- 43** Borrini-Feyerabend, G., Pimbert, M., Farvar, M.T., Kothari, A. and Renard, Y. 2004. *Sharing Power: Learning by doing in co-management of natural resources throughout the world*. IIED, IUCN-CEESP, CMWG, Cenestra, Tehran.
- 44** Pierce Colfer, C.J., Prabhu, R., Günter, M., McDougall, C., Miyasaka Porro, N. and Porro, R. 1999. *Who counts most? Assessing well-being in sustainable forest management*. Criteria and Indicators Toolbox Series number 8. Center for International Forestry Research, Bogor, Indonesia.
- 45** Ward, T. 2017. The Right to Free, Prior, and Informed Consent: Indigenous Peoples' Participation Rights within International Law. *Northwestern Journal of International Human Rights* **10** (2): <http://scholarlycommons.law.northwestern.edu/njihr/vol10/iss2/2>
- 46** Borrini-Feyerabend, G., Dudley, N., Lassen, B., Pathak, N. and Sandwith, T. 2012. *Governance of Protected Areas: From Understanding to Action*. IUCN, CBD and GIZ, Gland, Switzerland.
- 47** <https://www.iccaconsortium.org/> accessed 10 March 2020.
- 48** UNCCD. 2017. *Turning the Tide: The gender factor in achieving land degradation neutrality*, Bonn.
- 49** Castañeda Camey, I., Sabater, L., Owren, C. and Boyer, A.E. 2020. *Gender-based violence and environment linkages: The violence of inequality*. J. Wen (ed.). IUCN, Gland, Switzerland.
- 50** Jones, M.S. and Solomon, J. 2019. Challenges and supports for women conservation leaders. *Conservation Science and Practice* **1**: e36.
- 51** Jones, M.S., Teel, T.L., Martinez, D.F. and Solomon, J. forthcoming. Conflict and adaptation at the intersection between motherhood and conservation leadership. *Biological Conservation*.
- 52** Dudley, N., Mansourian, S., Stolton, S. and Suksuwan, S. 2010. Do protected areas contribute to poverty reduction? *Biodiversity* **11**: 5-7.
- 53** Vujović, A., Krivokapić, Z., Stefanović, M., Pešić, V. and Jovanović, J. 2018. Integrated lake basin management for Lake Skadar/Shkodra. In *The Handbook of Environmental Chemistry*. https://link.springer.com/chapter/10.1007/698_2018_264
- 54** Selulić, G. Ivanić, K.Z. and Porej, D. 2017. *Protected Areas Benefits Assessment (PA-BAT) in Montenegro*. WWF Adria, Zagreb.
- 55** UNDP and GEF. 2011. *The Economic Value of Protected Areas in Montenegro*. Quoted in M. Kettunen, and P. ten Brink (eds.) *Social and Economic Benefits of Protected Areas: An assessment guide*. Earthscan, London.
- 56** Ibid.
- 57** Mrdak, D. 2009. Environmental risk assessment of the Morača river canyon and Skadar Lake. WWF MedPo and Green Home, Podgorica.
- 58** Salinas, E., Wallace, R., Painter, L., Lehm, Z., Loayza, O., Pabón, C. and Ramírez, A. 2017. *The Environmental, Economic and Sociocultural Value of Indigenous Territorial Management in the Greater Madidi Landscape. Executive summary*. CIPTA, CIPLA and WCS. La Paz, Bolivia. 50 pp.
- 59** Central Bureau of Statistics. 2011. *National population and housing census (National Report)*. National Planning Commission Secretariat, Government of Nepal, Kathmandu, Nepal.
- 60** Nellemann, C., Verma, R. and Hislop, L. (eds). 2011. *Women at the frontline of climate change: Gender risks and hopes. A Rapid Response Assessment*. United Nations Environment Programme, GRID-Arendal.
- 61** WWF Nepal. 2015. *Gender Responsive and Inclusive Conservation*. Kathmandu.
- 62** Fuhrman, S., Janoch, E., Koch, R., Oo, K., Parra, V. and Rawe T. 2020. *Left out and left behind: Ignoring women will prevent us from solving the hunger crisis*. CARE Policy Report. CARE.
- 63** Ministry of Forests and Soil Conservation. 2015. *Strategy and Action Plan 2015-2025: Teri Arc Landscape*. Ministry of Forests and Soil Conservation, Kathmandu, Nepal.
- 64** Castañeda Camey, I., Sabater, L., Owren, C. and Boyer, A.E. 2020. Op cit.
- 65** Blom, A. 1997. A Critical Analysis of Three Approaches to Tropical Forest Conservation Based on Experiences in the Sangha Region. *Yale School of Forestry & Environmental Studies Bulletin*, no. 102
- 66** Establishment agreement between Parks Canada & LKDFN.
- 67** Establishment Agreement between GNWT & LKDFN.
- 68** Thaidene Nene "Land of the Ancestors" website

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