

Human Rights for Nature-based Solutions in Pacific Islands











Human Rights for Nature-based Solutions in Pacific Islands

SPREP Library Cataloguing-in-Publication Data

Human rights for nature-based solutions in Pacific Islands. Apia, Samoa: SPREP, 2024.

36 p. 29 cm.

ISBN: 978-982-04-1247-7 (print)

978-982-04-1248-4 (ecopy)

- 1. Human rights advocacy Law and legislation Oceania.
- 2. Conservation of natural resources Oceania.
- I. Kiwa Initiative.
- II. Title.

341.010961

Copyright © Kiwa Initiative 2024

Reproduction for educational or other non-commercial purposes is authorised without prior written permission from the copyright holder provided that the source is fully acknowledged. Reproduction of this publication for resale or other commercial purposes is prohibited without prior written consent of the copyright owner.

The Guide to Human Rights for Nature-Based Solutions in Pacific Islands was made possible through the support of the Secretariat of the Pacific Regional Environment Programme (SPREP) and the Kiwa Initiative.

The views expressed in this publication are the sole responsibility of the authors and do not necessarily represent the views of the Kiwa Initiative's donors.

Photographs: Unless otherwise acknowledged, all photographs are copyright SPREP.

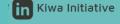
Suggested citation: SPREP (2024) Human rights for nature-based solutions in Pacific Islands. Mangubhai S, Chung M (authors). Kraft M, Rocle N (eds). Apia, Samoa: Secretariat of the Pacific Regional Environment Programme.

Acknowledgements: we would like to thank colleagues from the Pacific Community (SPC) Human Rights and Social Development Division for their comments, from SPREP Gender Inclusion and Mainstreaming Committee, from the Secretariat of the Kiwa Initiative and the Kiwa project leaders for their valuable contributions to this work.



The Kiwa Initiative - Nature-based Solutions for Climate Resilience aims at strengthening the climate change resilience of Pacific Islands ecosystems, communities and economies through Nature-based Solutions (NbS), by protecting, sustainably managing and restoring biodiversity. It is based on an easier access to funding for climate change adaptation and NbS for local, national authorities, civil society and regional organisations of Pacific Island Countries and Territories including the three French overseas territories. The Initiative is funded by the European Union (EU), Agence Française de Développement (AFD), Global Affairs Canada (GAC), Australian Government Department of Foreign Affairs and Trade (DFAT) and New Zealand Ministry of Foreign Affairs and Trade (MFAT). The Kiwa Initiative has established partnerships with the Pacific Community (SPC), the Secretariat of the Pacific Regional Environment Programme (SPREP) and the Oceania Regional Office of the International Union for Conservation of Nature (IUCN-ORO). More information on www.kiwainitiative.org





Contents

Human Rights framework for Nature-based Solutions	1
What are Human Rights?	2
12 human rights relevant to designing and implementing NbS	4
1. Rights to non-discrimination and gender equality	6
2. Rights of Persons with Disabilities	8
3. Rights to a safe, clean, healthy and sustainable environment	9
4. Right to clean water	11
5. Right to healthy food	12
6. Rights to adequate shelter, housing and secure tenure	14
7. Right to health	16
8. Rights to and at work	17
9. Rights to inclusive, participatory and democratic governance	18
10. Rights of Indigenous Peoples	20
11. Rights to live free of conflict and violence	22
12. Intergenerational rights, equity and justice	23
Annex 1: Definitions	25
Annex 2: References	27

LIST OF ACRONYMS

FPIC Free, Prior and Informed Consent

GEDSI Gender Equity, Disability and Social Inclusion

HRBA Human Rights-Based Approach

IUCN International Union for Conservation of Nature

NbS Nature-based Solutions

PICTs Pacific Island Countries and Territories

SOGIESC Sexual Orientation, Gender Identity and Expression, and Sex Characteristics

SPC Pacific Community

SPREP Secretariat of the Pacific Regional Environment Programme

UDHR Universal Declaration of Human Rights



Human Rights framework for Nature-based Solutions



Environmental and social issues cannot be separated - a thriving planet cannot be one that contains widespread human suffering or restricts human potential, and humanity cannot exist on a dying planet.¹

The health, wealth and wellbeing of people is highly dependent on the many and varied benefits and ecosystem services provided by healthy, biodiverse, natural ecosystems. Globally there is growing acceptance that failing to understand and recognise the relationship between nature and people will result in models of economic growth that continue to contribute to biodiversity loss, while missing the opportunity to effectively help resolve major societal challenges through nature (IUCN, 2020). Nature-based Solutions (NbS) are "actions to protect, sustainably manage and restore natural and modified ecosystems in ways that address societal challenges effectively and adaptively, to provide both human well-being and biodiversity benefits" (IUCN, 2016). This approach is not new and has been used by practitioners for decades to recognise the interconnectedness and interdependent relationship between nature and human existence, health and wellbeing.

NbS must always be implemented using a human rights-based approach. Human rights are universal rights that are inherent to us all, regardless of nationality, sex, national or ethnic origin, colour, religion, language, or any other status. They range from the most fundamental - the right to life - to those that make life worth living, such as the rights to food, education, work, health, and liberty.

NbS, if designed correctly, with the full participation of all local stakeholders and with the right social safeguards in place, can positively reinforce human rights. For example, well-designed marine protected or conserved areas² can help maintain biodiversity and core ecosystem services, contributing to people's rights to an adequate food supply and a clean, safe and healthy environment (Mangubhai et al., 2015; Oldekop et al., 2016). Forest protected or conserved areas can protect people's rights to health (e.g. access to traditional medicinal plants), clean, accessible water sources, and a safe, clean, healthy and sustainable environment (Mangubhai and Lumelume, 2019). Investing in green infrastructure (e.g., maintaining and restoring coastal forests, wetlands and mangroves) in low-lying small islands and coastal areas in the Pacific, can increase resilience to flooding and coastal erosion (Rao et al., 2013).

The purpose of this booklet is to provide an introduction to what human rights are and why they are relevant and should be considered when designing and implementing NbS for climate change adaptation in the Pacific Islands. Each of the 12 human rights identified are described in detail, with Pacific Islands examples (where available) to illustrate their relevance to NbS practitioners. This is not to say other rights are not important, rather these 12 human rights have been highlighted as good entry or starting points for learning and considering how human rights intersect with NbS.

Understanding the relationship between human rights and NbS is an important first step to integrating human rights in NbS.

¹ Smallhorn-West, P., Allison, E., Gurney, G., Karnad, D., Kretser, H., Lobo, A.S., Mangubhai, S., Newing, H., Pennell, K., Raj, S., Tilley, A., Williams, H. and Peckham, S.H., 2023. Why human rights matter for marine conservation. Front. Mar. Sci. 10:1089154. doi: 10.3389/fmars.2023.1089154

² See Jonas et al., (2021) for discussion on terminology around protected areas, conserved areas, and other effective area-based conservation measures (OECMs), framed by the Convention on Biological Diversity.



What are Human Rights?

The 1948 Universal Declaration of Human Rights (UDHR) is a milestone document for humanity that sets out the fundamental human rights to be universally protected and a common standard for all peoples and nations. Everyone is entitled to these rights, without any forms of discrimination. Human rights include gender equality.

The UDHR recognises that human rights are universal and non-discriminatory (held equally by all human beings), inalienable (they cannot be taken away) and

unconditional (they do not depend on behaviour), indivisible and interdependent (they are all equally important and they cannot be separated) (Fig. 1) (Newing and Perram, 2019). Every individual is a rights-holder and entitled to the same rights without discrimination. Rights-holders also have the responsibility to respect the rights of others. All State actors, as duty-bearers, have obligations under international law to respect, protect and fulfil human rights. These obligations can extend to non-state actors.

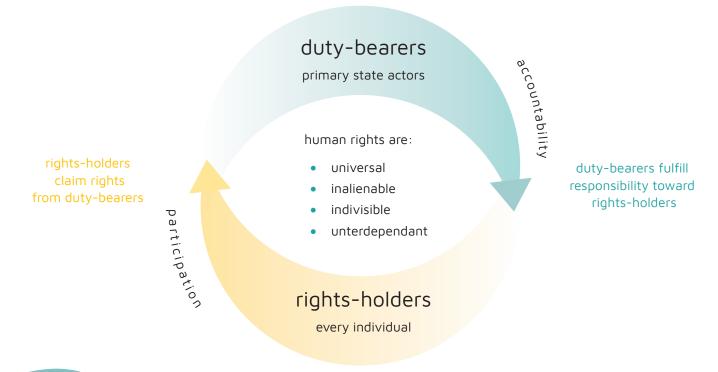


Figure 1. Roles and Responsibilities to realise and fulfil human rights

A Human rights-based approach (HRBA) is a conceptual framework based on international human rights standards and operationally directed to promoting and protecting human rights. It seeks to analyse inequalities that lie at the heart of development problems and redress discriminatory practices and unjust distributions of power that impede development progress and often result in groups of people being left behind (UN Sustainable Development Group, 2022).

A HRBA to NbS means, "that biodiversity policies, governance and management do not violate human rights and that those implementing such policies actively seek ways to support and promote human rights in their design and implementation" (Boyd and Keene, 2021).

Specific articles in the UDHR relevant to those working on environmental issues are:

the right to life, liberty, and security of person (Article 3) all are equal before the law and are entitled to equal protection against any discrimination (Article 7)

no one shall be subjected to arbitrary arrest, detention or exile (Article 9) **no one shall be arbitrarily deprived of their property** (Article 17b)

the right to freedom of opinion and expression, without interference (Article 19) the right to an adequate standard of living for their health and wellbeing, and includes food and housing, and security in the event of unemployment, or other lack of livelihood in circumstances beyond their control (Article 25a)

the right freely to participate in the cultural life of the community, and share in scientific advancement and its benefits (Article 27)

everyone has duties to the community in which alone the free and full development of their personality is possible (Article 29a)

However, there may be exceptional circumstances where rights and freedoms can be restricted in order to respect and protect the rights and freedom of others. For example, a government might declare a state of emergency and limit the movement of people during a disaster.

respect for nature and human rights".³ The Special Rapporteur on Human Rights and Environment has provided guidance on the integration of HRBA across the implementation, monitoring and reporting of the post-2020 global biodiversity framework (Human Rights in Biodiversity Working Group, 2021, 2020a, 2020b). In July 2022, the United Nations welcomed the recognition by the General Assembly that a clean, healthy, and sustainable environment is a human right. This recognition followed the UN Human Rights Council resolution 48/13 which acknowledged the right in October 2021.

Explicit reference to human rights was included in the 2016 Cancun Declaration of Parties to the Convention on Biological Diversity (CBD), where Parties committed "to work at all levels ... incorporating an inclusive economic, social, and cultural approach with full

^{3 2016} Cancun Declaration on mainstreaming the conservation and sustainable use of biodiversity for well-being. https://www.cbd.int/cop/cop-13/hls/ cancun%20declaration-en.pdf



12 human rights relevant to designing and implementing NbS

The UDHR laid the foundation that paved the way for the adoption of more than 70 human rights treaties at global and regional levels. There are multiple gender and human rights international conventions that are relevant to the environment sector which many Pacific Island countries and territories (PICTs) are signatory to, as well as regional declarations that have been made by Pacific leaders. Most PICTs have recognised core human rights in their national constitutions and continue to make progress on domesticating human rights and gender principles in legal and policy frameworks.

By reviewing these commitments and reflecting on the obligations of state and non-state actors⁴, 12 rights have been identified that are relevant (i.e. commonly connected with the environment sector), and should be considered when designing and implementing NbS for climate change adaptation (Fig. 2). This is not to say other rights are not important (e.g. right to life, liberty, and security of person, all are equal before the law and are entitled to equal protection against any discrimination, no one shall be subjected to arbitrary arrest, detention or exile) - rather 12 human rights have been highlighted as good entry or starting points for learning and considering how human rights intersect with NbS.

4 Non-state actors are organisations not affiliated with the government, and include civil society or civil society organisations including non-government organisations, business associations (excluding for profit enterprises), academia, and the media. In applying this human rights framework, it is important to understand when designing and implementing NbS projects:

that human rights are interdependent, indivisible and interrelated, meaning that the violation of one right may impair the enjoyment of other human rights and should be considered

how the rights of the individual(s) impact(s) the rights of others

the rights to non-discrimination and gender equality and rights of those living with disability, are crosscutting and apply to all of the rights

Emerging literature and environmental frameworks are placing a greater emphasis on human rights and HRBA. It is important to keep in mind that human rights frameworks are living instruments and are constantly shaped and adopted to current global challenges. They also just provide minimum standards and leave room for contextualisation.

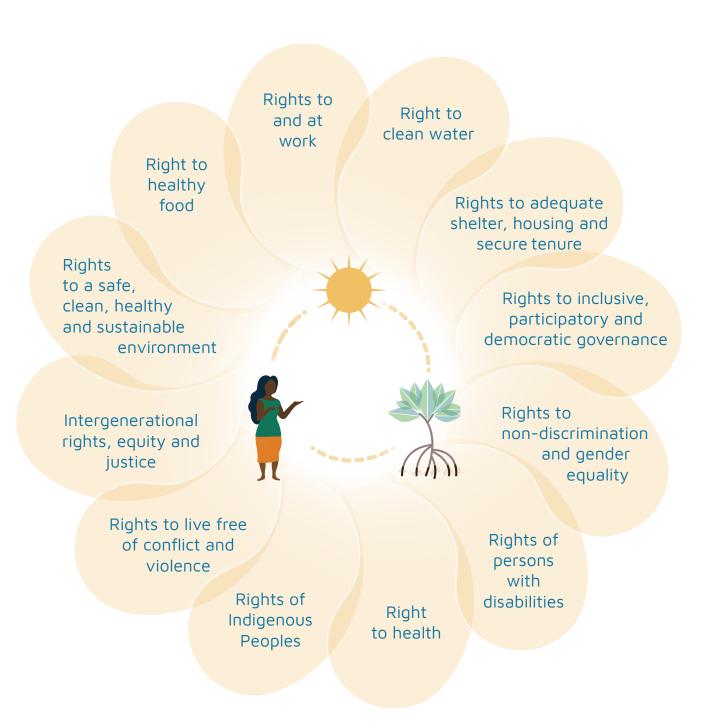


Figure 2. Twelve human rights relevant to Nature-based Solutions

1. Rights to non-discrimination and gender equality



What is this right about?

Non-discrimination and equality are fundamental human rights principles and components that interlink with all other human rights. Recognising that every human being is entitled to all rights and freedoms "without distinction of any kind, such as race, colour, sex, language, religion, political or other opinion, national or social origin, property, birth or other status" (UN Universal Declaration of Human Rights, 1948)⁵.

The implications of human rights violations and environmental degradations are felt most acutely by

people that are already in vulnerable situations, and have less power and privilege (Barclay et al., 2021). Those who are at greater risk from environmental and climate change often include women, SOGIESC⁶ persons, children, older persons, persons living with disabilities, persons living in poverty, Indigenous communities, ethnic minorities, migrant communities and displaced persons. Many persons are subject to discrimination along more than one social dimension (intersectionality), such as Indigenous women or women living in poverty.

⁵ UN. 1948. Universal Declaration of Human Rights. Article 2. https://www.un.org/en/about-us/universal-declaration-of-human-rights

⁶ SOGIESC stands for people with diverse sexual orientations, gender identities and expressions, and sex characteristics, and is increasingly being used in the Pacific in preference to LGBTIQ+. Diverse SOGIESC is preferred to LGBTIQ+ as it includes people whose lives do not fall into the categories of lesbian, bisexual, gay, transgender, intersex or queer, including cultural non-binary people such as hijra, waria, bakla, fa'afafine, people who use non-English terms that convey distinct experiences of gender and sexuality, and people who may view their diversity as practice rather than identity (UN Women, 2021a).

Why is it relevant to NbS?

Environmental changes, especially resource scarcity, can widen the gap between beneficiaries and those suffering from its use or change, impacting people's sense of place, and diminish social coherence and social relations within a community (Riechers et al., 2020; Schleicher et al., 2019). Because the benefits and costs of NbS may differ between individuals and groups, approaches used by practitioners can reinforce, perpetuate or increase existing forms of discrimination. In some cases the approach used might itself be discriminatory. Many persons are subject to discrimination along more than one social dimension (intersectionality), such an Indigenous woman with disability living in poverty.

Socio-cultural norms and power structures and dynamics can make it difficult for marginalised people

and groups to have a voice and participate in decision-making processes that might affect them. NbS interventions and approaches need to empower stakeholders, especially those who may be poor, less influential, marginalised, under-represented or at risk, from the start of the process. Practitioners should pay particular attention to historical or persistent prejudice against groups of individuals, and recognise that environmental harm can both result from and reinforce existing patterns of discrimination, and take effective measures against the underlying conditions that cause or help to perpetuate discrimination. For example, women who marry into their husband's village may be excluded from decision-making concerning the natural resources.

Case Study: Tambu area in Roviana Lagoon, Solomon Islands

In Roviana Lagoon in Western Province, customary chiefs and elders make decisions on access to and management of local marine resources. In the late 1990s a traditional tambu was established restricting all marine harvesting activities in front of the village as part of a wider regional conservation and development program. The marine closure was managed by a community-based organisation and a local resource management committee, in close collaboration with local (customary and church) leadership. Decisions on the management of coastal fisheries are mostly taken by male community leaders, and men from the village were appointed as rangers to monitor the

tambu. Women play an important role within their community, contributing to food security and income. A 2015 study found women were inclined towards breaking local marine management rules because they had very little involvement in decision-making regarding local marine management, and the tambu was located where mainly women used to fish, and it took too much time to fish in other areas. Furthermore, many had partly lost trust in the local leadership due to a perceived misuse of money relating to the marine closure. This example highlights the risk of leaving women out of decisions relating to the use and management of marine resources, coupled with weak governance.

Source: Rohe, J., Schlüter, A., Ferse, S.C.A., 2018. A gender lens on women's harvesting activities and interactions with local marine governance in a South Pacific fishing community. Maritime Studies 17(2): 155–62

2. Rights of Persons with Disabilities



What is this right about?

Persons with disabilities represent an estimated 1 billion people worldwide and include a diverse population of people with different individual conditions and support requirements who face significant barriers such as stereotypes, stigma and prejudices (Fong, 2022) that all lead to social exclusion. They also face environmental barriers which hinder their full and effective participation in society on an equal basis with others.

Disability rights promote, protect and ensure the full and equal enjoyment of all human rights and fundamental freedoms by all persons with disabilities, and promote the respect for their inherent dignity (UN Declaration on the Rights of Disabled Persons, 1975)⁷. These rights include the right to non-discrimination of persons with disabilities.

Why is it relevant to NbS?

Those living with disabilities are some of the most marginalised, and face numerous barriers, including when it comes to contributing to and benefiting from NbS. Currently, most environmental organisations are not integrating the voices and needs of those living with disabilities into NbS, or broader environmental work, as evidenced by the lack of reports and studies in the Pacific or globally.

Disability inclusion requires special focus on the removal of physical, environmental, attitudinal and institutional barriers (Redman-MacLaren et al., 2018; UN Children's Fund, 2021). NbS practitioners should give due consideration to the regional framework and national policies and strategies relating to the inclusion of people living with disabilities in the Pacific (Pacific Islands Forum Secretariat, 2016). The vision of the Regional Framework is "an inclusive, barrier-free, and rights-based society for men, women and children with disabilities, which embraces the diversity of all Pacific people".

⁷ UN, 1975. Declaration on the Rights of Disabled Persons. https://www.ohchr.org/sites/default/files/res3447.pdf

Case Study: Impacts of Climate Change on Persons with Disabilities

Fong (2022) provides a research brief on women and disability in the context of climate mobility in Fiji, Solomon Islands and Vanuatu. The brief highlighted a diversity of challenges people with disability faced that needed to be considered when designing NbS such as food security, income generation, health (i.e. difficulty accessing safe drinking water due to changes in climate patterns, and increased severity of weather events). For the Solomon Islands, the increase in rainfall during the wet season and more drought during the dry season caused murkier water during the wet

season due to heavy rainfall and drying up of wells in the dry season. Persons with disability in Vanuatu were heavily dependent on agriculture for food production, but climate change has had adverse effects on crops, leading to a decrease in production. Deaf and mute persons generally were denied the opportunities to go to school and therefore did not have employment. As a result many have to manually produce their food or support family members who work to earn cash, and are involved in subsistence activities such as fishing, gardening and feeding livestock.

Source: Fong, P., 2022. Women and disability in the context of climate mobility. Pacific Resilience Partnership.

3. Rights to a safe, clean, healthy and sustainable environment

What is this right about?

All people have the right to a clean, healthy and sustainable environment. As human rights and the environment are interdependent, a clean, healthy and sustainable environment is necessary for the full enjoyment of a wide range of human rights, such as the rights to life, health, food, water and sanitation and development, among others. At the same time, the enjoyment of all human rights, including the rights to information, participation and access to justice, is of great importance to the protection of the environment.

The right to a healthy environment requires states to have laws that specifically recognises the right to a safe, clean, healthy and sustainable environment, and procedures to address and protect those rights (e.g. environmental impact assessments), including through the judicial system. Procedural components include access to environmental information, public participation in environmental decision-making, and access to justice (OHCHR and UNEP, 2020).

Why is it relevant to NbS?

NbS must consider the environmental impacts of proposed projects, including their potential effects on the enjoyment of human rights, and should maintain substantive environmental standards that are non-discriminatory and non-retrogressive (i.e., declining from a better to a worse state). This includes both protecting against environmental harm that results from or contributes to discrimination, and providing equal access to environmental benefits arising from NbS that are not discriminatory. For example, the selection of which pieces of degraded land to rehabilitate may benefit some upstream and downstream communities more than others. Or another example of discrimination may be failing to give 'difficult to work with' groups the same access to information about environmental matters, or the same opportunities to participate in environmental decision-making.



Case Study: Impact of mining on communities' environmental rights

The Ok Tedi copper and gold mine in Western Province, Papua New Guinea (PNG), is one of the world's largest copper mines. A joint venture between the mining company and the PNG Government, Ok Tedi is seen as a significant contributor to the national exports, local employment, and the GDP (WWF, 2020). However, the environmental degradation resulting from its operations and tailings disposal into the Fly River since the 1980s, has had significant social and environmental impacts on the environment and communities downstream. Studies have found that riverbed

degradation and heavy metal concentration resulting from long-term discharge from the mine led to significant decline of fish populations, and in some sites close to the point of extinction (Swales et al., 1998; WWF, 2020). The impacts on communities south of the mine includes water pollution, reduced livelihoods and access to food (fish and garden produce) (Jorgensen, 2006; Kirsch et al., 1992; WWF, 2020). While river pollution is evident from the continuous discharge into the river, the lack of information on the environmental and health impacts is also an issue.

Source: Swales, S., Storey, A.W. & Bakowa, K.A., 2000. Temporal and Spatial Variations in Fish Catches in the Fly River System in Papua New Guinea and the Possible Effects of the Ok Tedi Copper Mine. Environmental Biology of Fishes 57, 75–95. https://doi.org/10.1023/A:1007513906281



What is this right about?

Access to safe water is a fundamental human need and therefore, a basic human right. Universal access to clean water and adequate sanitation are prerequisites for healthy and prosperous societies. Without water, people are exposed to health risks, are less prepared to manage the impacts of climate change, and inequalities are exacerbated (Tantoh et al., 2021).

Why is it relevant to NbS?

The provision of water and sanitation services in PICTs is among the lowest in the world; only half of the population use improved drinking water sources and only a third use improved sanitation (WHO, 2016). NbS should protect and support people's right to sufficient, safe, clean, physically accessible water to meet their personal and domestic needs (i.e., drinking, personal sanitation, washing of clothes, food preparation, personal and household hygiene). Drinking water quality and physical access to water should comply with the World Health Organization standards (WHO, 2017).

There are numerous studies that detail the relationship between NbS or nature more broadly to maintain the quality of groundwater, rivers and watersheds (Carrard et al., 2019; Jupiter et al., in review; Love et al., 2022). In the Pacific, rapid and uncontrolled development and population growth has increased the demand for and over pumping of groundwater in the majority of countries; this will eventually lead to sources drying out, or in the case of coastal aguifers, saltwater intrusion (Mirti and Davies, 2005; Sharan et al., 2021). There is also growing concern of the impact of human activities on groundwater contamination in the Pacific, including microbiological pollutants that contribute to waterborne diseases and other health problems (Jenkins et al., 2019, 2016; Mirti and Davies, 2005). NbS looking to maintain or improve groundwater sources and quality will have to balance this against people's rights to water, and consider who will benefit and who will be impacted.

Case Study: improving watersheds in Palau

Local communities on Babeldaob in Palau, have depended on the island's watersheds, rivers and streams for drinking and farm irrigation. However, due to sedimentation build-up from upstream land clearing and road building activities, the island's major water sources became under threat of pollution. An island collective of traditional and elected leaders, and community members formed the Babeldaob Watershed Alliance to campaign for watershed management and restoration, and to reduce impacts to downstream coastal and marine ecosystems (Jupiter et al., 2013). They work

to prepare communities to meet the challenges of maintaining water quality and healthy habitats posed by climate change, population growth, continued development and increasing subsistence and commercial farming. In 2011, the Alliance promoted national campaigns for an island-scale ecosystem-based management approach, communicating the impacts of upstream land use on downstream habitat and water quality, promoting protecting ecosystem services, and calling for new terrestrial protected areas and other watershed management initiatives in Palau.

Source: Jupiter, S., Jenkins, A., Lee Long, W., Maxwell, S., Watson, J., Hodge, K., Govan, H., Carruthers, T., 2013. Pacific Integrated Island Management – Principles, Case Studies and Lessons Learned. Secretariat of the Pacific Regional Environment Programme (SPREP), Apia, Samoa. https://www.sprep.org/attachments/Publications/BEM/20.pdf

5. Right to healthy food

What is this right about?

"The right to adequate food is realised when every man, woman and child, alone or in community with others, has physical and economic access at all times to adequate food or means for its procurement." The right to food includes the right to a minimum ration of calories, proteins and other specific nutrients, and all nutritional elements that a person needs to live a healthy and active life, and to the means to access them (Hicks et al., 2019; UNHCHR and FAO, 2010). Food also can be linked to culture and cultural practice, as seen in the Pacific (Kitolelei et al., 2021).

Why is it relevant to NbS?

Climate change poses a serious threat to people's right to food and threatens all aspects of food security, with 600 million additional people potentially vulnerable to malnutrition by 2080 (UN General Assembly, A/70/287). At the same time, social factors

such as poverty, social exclusion and discrimination often undermine people's access to food (Tantoh et al., 2021). NbS must ensure food availability is continued or enhanced, and this includes food available from natural resources through fishing, hunting or gathering, or through food production systems (i.e. agriculture, animal husbandry). At the same time, NbS must address unsustainable practices people use to obtain their food that result in harm to the natural environment which can then violate other rights (e.g. safe, clean, healthy and sustainable environment, rights to water).

Decision-making around NbS that may affect food systems short or long-term requires the inputs of all stakeholders that might be affected. Changes in access to resources, restricted formal rights through top-down management can impact on those that are marginalised, especially women and those with

⁸ Committee on Economic, Social and Cultural Rights in General Comment No. 12. About the right to food and human rights. Special Rapporteur on the right to food.

https://tinyurl.com/2xxwwofp

disabilities (Tantoh et al., 2021). Particular attention needs to be on the inclusion of women and the key role they play in household food security in many cultural contexts, as well as marginalised groups (Fong, 2022; Harper et al., 2020; Kett et al., 2021; UN Women, 2012). Traditional closures if established without consultations with women can impact family food security, and result in low compliance as seen in Solomon Islands (Rohe et al., 2018). Despite women playing significant roles in the provision of foods for family food security in the Pacific, there is growing evidence and consensus that they are often missing or excluded from decision-making (Thomas et al., 2021).

Foods can be broadly divided into those derived or grown on the land (forest foods, agriculture) and those from aquatic environments (referred to as 'aquatic foods'⁹ or 'blue foods'). Depending on the type and scale of NbS, practitioners may need to consider one or both these types of foods rights when designing and implementing interventions.



Case Study: Building a network of organic farmers in the Pacific

Holistic approaches that integrate NbS are being promoted in the Pacific. For example, SPC launched a new network of Pacific organic learning farms (POLFN) to work towards increasing food security and helping protect the Pacific's food system from current and future shocks, including climate change and other disturbances (e.g. COVID-19). With funding from the Kiwa Initiative, the project will invest in smallholder producers to support farms that can serve as "learning centres that demonstrate the benefits of biodiversity, agroecology, agroforestry and organic production methods

and technologies for climate resilience". In New Caledonia, organic farmer Louis Ate shared that the benefits of organic farming go beyond economic means. Through his experience he found that organic farming resulted in quality food for his family and community, and maintained a healthy environment that sustained his livelihood.¹¹ Through the POLFN initiative, Pacific Islanders will share experiences on organic farming practices to ensure food security, climate change adaptation and biodiversity conservation to build resilience of small farmers in Fiji, Nauru, Tonga and Solomon Islands.¹²

⁹ Aquatic animals and plants grown in or wild-harvested from water and used for food.

¹⁰ Nature-based solutions key to new farm learning network. https://www.spc.int/updates/blog/2021/05/nature-based-solutions-key-to-new-farm-learning-network

¹¹ Conventional Farmer Turns Organic for Economic Gains but Finds More https://www.organicpasifika.com/poetcom/latest-updates/stories-of-impact/conventional-farmer-turns-organic-for-economic-gains-but-finds-more/

¹² Nature-based solutions shared through organic farming exchange https://www.organicpasifika.com/poetcom/latest-updates/stories-of-impact/nature-based-solutions-shared-through-organic-farming-exchange/

Case Study: locally managed marine areas

PICTs also have some of the highest consumption rates of aquatic foods, providing 50-90% of the annual protein intake in rural areas (Bell et al., 2009). Aquatic foods are highly nutritious (Hicks et al., 2019), yet micronutrient deficiencies and undernutrition are major problems in the Pacific (Farmery et al., 2020). Locally managed marine areas (LMMAs) have been used in some parts of the Pacific (e.g. Fiji, PNG, Solomon Islands) for 20 years, to support food security, livelihoods and

cultural practice, with potential co-benefits for biodiversity conservation (Jupiter et al., 2017). LMMAs are a locally-led approach in customary fishing grounds where communities (i.e. resource owners) are actively managing their resources to achieve local objectives (Jupiter et al., 2014). Because these LMMAs more often support local food production practices and food sharing, they can contribute to community resilience to disturbances (Ferguson et al., 2022).

6. Rights to adequate shelter, housing and secure tenure

What is this right about?

Under international law, to be adequately housed means having secure tenure without the worry of being evicted or having your home or lands taken away. Adequate housing and standard of living is considered essential for dignity and human survival, without which other human rights will be compromised. The right to adequate housing and standard of living should not be interpreted narrowly as only the physical home; rather, it should be seen as the right to live somewhere in security, peace and dignity.

Why is it relevant to NbS?

When designing and implementing NbS, this means considering people's land tenure rights (and the security of that tenure) as well as their access rights to natural resources for shelter and housing (i.e., forest timber resources). Most countries in the Pacific have recognised and protected Indigenous communities' rights to land, and land-sea tenure is an important part of Pacific Islanders' cultural identity (Fitzpatrick, 2022). However, rights around foreshore areas are more complex in the Pacific, and vary between countries. In many PICTs Indigenous communities have control and access rights to land (through customary tenure) but the foreshore land and waters are owned by the state and therefore, Indigenous communities

sometimes only have access rights (Graham and D'Andrea, 2021). While acquisition by the government is still possible under law, there are usually some human rights safeguards, including compensation. However, those with only access rights may not be able to get compensation for environmental use or degradation.

The nexus of these rights are complex because as populations grow, the land required for housing may grow, increasing the environmental footprint of human populations. This is because with expansion of human habitation comes land clearing for housing and food security (e.g., agricultural land), and environmental impacts through energy and water consumption, as well as the creation of waste and sewerage. Future human population growth trajectories will need to be considered when designing NbS. Climate change will have a large impact on human mobility patterns in the Pacific region such as relocation, displacement and migration (Thornton, 2022), and needs to be considered in NbS. High exposure to extreme events of climate change such as cyclones and floods may lead to migration away from people's ancestral lands, and increase migration to urban areas and settlement in areas where there is less security of land tenure (Campbell, 2019). NbS, where possible, should help reduce the likelihood of people moving off their ancestral lands.



Case Study: disputed land-sea boundaries

In PICTs land-sea tenure boundaries are passed down orally and are not codified in law (e.g. parts of Melanesia), NbS practitioners need to be extra sensitive to disagreements between communities surrounding tenure rights. Disagreements over access and exclusion can quickly become disputes, some of which may end up in a court of law, especially when there

is an economic opportunity at stake. This is particularly relevant for NbS involving protected or conserved areas where clarity on boundaries may be required or pushed by external entities. *Tambu* areas may also be set up by local communities in attempts to exert and secure tenure rights in disagreement with neighbouring communities.

Source: Foale, S., Macintyre, M., 2000. Dynamic and Flexible Aspects of Land and Marine Tenure at West Nggela: Implications for Marine Resource Management. Oceania. 71: 30–45.



7. Right to health

What is this right about?

The right to health as an inclusive right that extends not only to timely and appropriate health care but also to those factors that determine good health, including access to safe drinking-water and adequate sanitation, a sufficient supply of safe food, nutrition and housing, healthy occupational and environmental conditions, and access to health-related education and information.

Why is it relevant to NbS?

Natural resources are critical to the livelihoods, food and water security, culture and wellbeing of Pacific Island communities. Pacific Islanders may depend on plants for health purposes which may include physical, mental or emotional health. In light of COVID-19 there has been an increased call for the 'one health' approach to become the new global 'norm' that calls for integration of environment, food systems, and health (Hockings et al., 2020). The one health approach is relevant to NbS in the Pacific. Human modification of catchment land cover and hydrology can impact downstream coastal ecosystems, and facilitate increased transmission of disease in human populations (Jenkins et al., 2019). These impacts are even more pronounced in high island ecosystems where there is tight connectivity between land and sea. A reduction in ecosystem integrity in the Pacific, including those brought on or worsened by climate change, will create the environmental conditions that favour particular vectors, hosts and/or pathogens (Jenkins et al., 2019, 2016).

Case study: watershed management for human wellbeing

The Watershed Interventions for Systems Health in Fiji project is working with the national and local government, rural communities and the commercial sector to use an integrated approach to take a systems approach to health and well-being through focused action within five watersheds, with documented cases of typhoid, leptospirosis and/or dengue (Jupiter et al., in review; McFarlane et al., 2019). Interventions include forest regeneration, sustainable agricultural practices, erosion control, improved

land use practices adjacent to waterways, and improvements in water infrastructure. The project is working to transform management improving the ability of integrated systems to predict, prevent, respond and recover from water-related diseases and natural disasters (WCS, 2018), and has been expanded to Solomon Islands and Papua New Guinea with funding through the Kiwa Initiative to the Wildlife Conservation Society.

8. Rights to and at work

What is this right about?

"The right to work involves the right of everyone to the opportunity to gain their living by work which he or she freely chooses or accepts and rights at work include the freedom of association to collective bargaining, elimination of all forms of forced or compulsory labour, elimination of discrimination in respect of employment and occupation and a safe and healthy working environment" (ILO, 2021). Everyone has the right to work. The right to work is a foundation for the realisation of other human rights and for life with dignity. It includes the opportunity to earn a decent livelihood for themselves and their families. Closely connected with the right to work are the right to just and favourable conditions of work. Working conditions must be safe, healthy, and not demeaning to human dignity.

Why is it relevant to NbS?

NbS projects should consider if interventions being proposed will limit or alter individuals and groups of individuals' (e.g. fishers) rights to earn a living, including from nature-based livelihoods. The rights to work is an important consideration for NbS that involve the creation of marine protected areas, where there is a risk of reduced access rights of fishers to marine resources (Bennett and Dearden, 2014), or further depletion of marine resources in response to the creation of tourism-driven fisheries value chains (Lopes et al., 2017).

The rights to work, and safety at work is also important. In recent years, there is growing evidence of the risk of harm and in extreme circumstances death of environmental defenders with approximately 2000 killed in 57 countries since 2002, and around four killed every week in 2019 (Bille Larsen et al., 2021). Environmental defenders are "individuals and groups who, in their personal or professional capacity and in a peaceful manner, strive to protect and promote human rights relating to the environment, including water, air, land, flora and fauna" (UNEP, 2018).



Case study: fish wardens in Fiji

Fish wardens are a key figure in managing inshore fisheries as they monitor for fishing compliance (licenced or non-licensed fishers) in local coastal communities. In Fiji, fish wardens are appointed and certified by the Ministry of Fisheries, and are an existing member of the fishing community. Their rights to work and to be protected at work in their roles as wardens, are governed by the Fiji Fisheries Act. However, there exists many cases in Fiji where fish wardens are community appointed (uncertified) without the oversight from the government department (Minter, 2008). This has been due to many factors including shortage of certified wardens, urgent action to enforce resource management goals, and a delay in government resources and

training. Fish wardens who are uncertified are of particular risk of being prosecuted for assault, trespass or theft for attempting to exercise fish warden powers under the Act (Hubert, 2007; Minter, 2008). Wardens are also placed in potentially dangerous situations and are often at risk of experiencing violence from fishers. In one incident in Suva, a fish warden was badly beaten whilst trying to confiscate an unlicensed fisherman's catch. Violence appears to be a result of a combination of factors including lack of respect for and recognition of the fish warden role, and a lack of understanding in the wider community of the Fisheries Act and legal establishment of the fish warden role.

Source: Minter, A. 2008. Compliance and Enforcement for Coastal Fisheries Management in Fiji, IUCN Regional Office for Oceania, Suva, Fiji.

9. Rights to inclusive, participatory and democratic governance

What is this right about?

Inclusion, participation and democratic governance are core to HRBA, and are critical for the success of NbS and stakeholder buy-in and support. This includes guaranteeing protection for civil and political rights, including freedom of opinion, expression and assembly without fear of reprisal when it comes to environmental matters. This requires access to education and public awareness on environmental matters, and improved public access to environmental information held by authorities. It can include access to justice and effective remedies (e.g. grievance mechanisms) and democratic institutions to address human rights violations.

Why is it relevant to NbS?

There is an increasing body of work emerging from the Pacific on the importance as well as the potential negative consequences of applying approaches that are not inclusive and prevent all stakeholders, especially women and marginalised groups from participating in natural resource management (Cohen et al., 2016; Mangubhai and Lawless, 2021; Rohe et al., 2018; Thomas et al., 2021). NbS must protect, empower, support leadership, decision-making and the meaningful and informed participation of women, and other marginalised groups (Smallhorn-West et al., 2023). Participation is not just about attendance, but whether diverse voices have been heard, understood, valued and are reflected in decision-making.

What this means for NbS in the Pacific is that interventions that restrict local peoples' access and resource use, must undertake a full and participatory analysis of the conservation problem, its severity, what the drivers are and what role local people play (if any), what exactly needs to change to address any part of the problem related to local people, what are the pathways to accomplish this, and whether the social impacts would be fairly distributed (Newing and Perram, 2019).



For Indigenous communities this right to inclusion and participation means they must give free, prior and informed consent (FPIC) to any NbS that might threaten the enjoyment of their rights (see Indigenous rights) (FAO, 2016). This includes the right to active and free participation, directly and/or through their representative organisations, in the preparation and implementation of policies, programmes and projects that may affect their lives, land and livelihoods (Graham and D'Andrea, 2021). However, the decision-

making process may follow customary norms that can discriminate against or exclude certain groups, including women, persons living with disabilities, and those with diverse SOGIESC. NbS practitioners will need to ensure the approaches they take, while being respectful of Indigenous and local cultures, do not further discriminate and reinforce the exclusion of marginalised groups (see Rights to non-discrimination and gender equality).

Case study: free, prior and informed consent with Indigenous communities

"Free, prior and informed consent (FPIC) is the principle that local communities have the right to give or withhold consent to proposed projects that may affect their customary lands or resource use rights, or areas that they occupy or otherwise use" (Jupiter et al., 2013). In Manus Province, in PNG, as part of their REDD+project on sustainable forests, the Wildlife Conservation Society developed and applied a locally appropriate process to ensure that local stakeholders input in the project design at provincial and local levels of government.

Following international FPIC requirements, consultations on the project valued and reflected gender awareness and inclusion efforts, access to full information for stakeholders' decision-making, and respecting the rights of social groups to withhold their consent. The project sought consent from local landowners from 83 clans and 19 villages. Genuine use of FPIC processes requires participation that "protects the right of local communities to be fully informed about, and give their consent freely to planned management actions".

Source: Jupiter, S., Jenkins, A., Lee Long, W., Maxwell, S., Watson, J., Hodge, K., Govan, H., Carruthers, T., 2013. Pacific Integrated Island Management – Principles, Case Studies and Lessons Learned. Secretariat of the Pacific Regional Environment Programme (SPREP), Apia, Samoa. https://www.sprep.org/attachments/Publications/BEM/20.pdf

10. Rights of Indigenous Peoples



What is this right about?

Indigenous peoples globally, including in the Pacific, have the right to self-determination and to freely pursue their economic, social and cultural development and political status (Jonas et al., 2016). Self-determination means Indigenous peoples have the right to be in control of their lives and future, which includes maintaining who they are and to live the way they want to live. This includes rights to autonomy or to self-govern in matters relating to their internal and local affairs, and to participate in decision-making in matters that affect them and their rights. In doing so, they also have the right to own, use and control their lands, territories and resources, and to maintain their connection to place, continue their cultural practice, and spiritual wellbeing (Kitolelei et al., 2021; Miyamoto et al., 2021; Vave, 2022).



There is no singularly authoritative definition of indigenous peoples under international law and policy, and the Indigenous Declaration does not set out any definition.

This decision was taken intentionally by the drafters based on the rationale that the identification of an indigenous people is the right of the people itself — the right of self-identification — and a fundamental element of the right to self-determination.

https://www.ohchr.org/en/indigenous-peoples/about-indigenous-peoples-and-human-rights

Why is it relevant to NbS?

Indigenous peoples and their communities that rely on their ancestral lands and waters for food, livelihoods and cultural practice, can face increasing pressure from governments and business enterprises seeking to exploit their resources. They can be marginalised from decision-making processes and their rights can be ignored or violated.

NbS projects must put in place social safeguards to respect and protect Indigenous rights to the lands, waters and resources that they have traditionally owned, occupied or used. This includes obtaining their free, prior and informed consent (FPIC) before starting on a project, and valuing and respecting Indigenous knowledge systems. There are global standards that have been developed for FPIC (FAO, 2016) that should be tailored to local circumstances, without eroding the core principles at the heart of the guidance. The FPIC process must ensure that all necessary information is provided to enable Indigenous peoples to make informed decisions, and their consent must be given freely, without being subjected to coercion, intimidation, or violence. In some contexts (e.g. Fiji), the consent may require consultations with those Indigenous diaspora residing in urban settings and even overseas, but still retain their rights back in their ancestral home.

Indigenous peoples have the right to negotiate for changes in the design of projects, or choose not to participate in part or in whole. Indigenous peoples have the right to restitution or, if this is not possible, just, fair and equitable compensation for their lands, waters, territories and resources that have been taken, used or damaged. NbS practitioners must understand Indigenous governance structures, processes and perspectives on natural resource, and ensure approaches being used in projects do not erode or marginalise those systems, or impact the integrity and social cohesion of peoples and their communities. There are numerous studies that highlight that NbS have a higher chance of success if they include different knowledge systems, including Indigenous knowledge systems held by men, women, and youth in their communities (IUCN, 2020; Kitolelei et al., 2022; Singeo and Ferguson, 2022; Thomas et al., 2021). This includes respecting and protecting traditional knowledge and practices in relation to the conservation and sustainable use of their lands, territories and resources which includes genetic resources (Govan et al., 2008; Kitolelei et al., 2022; Vave, 2022). For example, traditional knowledge in the Pacific plays an important role in coping with disasters (Fletcher et al., 2013).

Case study: Consideration of Indigenous rights

There are studies documenting the violation of Indigenous rights, especially around the exploitation of natural resources (Mitchell, 2021; Richards et al., 2021) in the Pacific. Conflicts between Indigenous peoples and the management of protected or conserved areas can decrease the conservation effort to the point of making some protected areas less successful than the unprotected areas surrounding them (Bennett et al., 2021; Cinner et al., 2016).

There are high risks of adverse impacts on Indigenous tenure rights as a result of changes in legislation, like for example, where an area achieves protected area status. For example, the gazetting of marine protected areas in customary fishing grounds requires Indigenous communities to waive their rights without compensation marine protected areas in customary fishing grounds, Indigenous communities to waive their rights without compensation (FELA and EDO, 2017).

11. Rights to live free of conflict and violence



What is this right about?

Everyone has the right to life, to live in peace, free from violence and threats of conflict. There are links between environmental degradation and violence, including gender-based violence (Castañeda Carney et al., 2021). Different forms of gender-based violence (i.e., physical, sexual, psychological, financial, cultural) have been documented within sectors, including fisheries (Mangubhai et al., 2023). Competition over scarce natural resources, exacerbated by climate change and widening inequalities can result in increase in environmental crime, conflict, displacement and social unrest (A/HRC/37/30). Gender-based violence (especially rape, sexual exploitation, and assault) often increases after large disturbances in the Pacific (e.g. cyclones, volcanic eruptions), particularly if there are disruptions to resources and there is financial instability (UN Women, 2021b). Rooted in discriminatory sociocultural or wider societal norms and power relations, violence is a means to reinforce inequalities and power hierarchies. Those that are most at risk include women, children, the elderly, ethnic minorities and some Indigenous groups (Bedi and Levitt Cea, 2019; Mangubhai et al., 2023; Ybarra, 2016).

Why is it relevant to NbS?

NbS projects should support a safe and enabling environment in which individuals and groups that work on NbS interventions can operate free from threats, harassment, intimidation and violence. This includes awareness and sensitivity to existing conflicts and avoiding the creation of new conflicts, which can be exacerbated by increasing environmental degradation and depletion of natural resources. Forced evictions have been documented globally, largely associated with the establishment of protected or conserved areas (Almudi and Berkes, 2010; Cross, 2016). Forced evictions is a form of violence, and is broadly defined as the permanent or temporary removal against their will of individuals, families and/or communities from the homes and/or land which they occupy, without provision of, and access to, appropriate forms of legal or other protection. It can also include loss of fishing rights to areas, or livelihoods, and can lead to poverty and marginalisation (Bedi and Levitt Cea, 2019).

Case study: Protected areas leads to displacement of people

There are global examples of local communities or specific groups (e.g., fishers) being removed to enable the establishment of protected or conserved areas (Bocarejo and Ojeda, 2016; Cross, 2016). For instance, the experience of migrant small-scale fishers in the West African Bijagos Archipelago, who lost access to a beach near their fishing camp that became a boundary mark for a national park. This led to violent evictions, and migrant fishers shifting to less-observed waters, and ensuing power struggles with indigenous groups (Cross,

2016). The immediate disruption can traumatise the people involved, leading to a sense of confusion, insecurity and isolation, and this can be exacerbated if individuals (and especially children) have witnessed or themselves been subjected to violent incidents (UN Habitat, 2014). Forced evictions constitute gross violations of a range of internationally recognised human rights, including the human rights to adequate housing, food, water, health, education, work, security of the person, freedom from cruel, inhuman and degrading treatment, and freedom of movement.

Source: Cross, H. 2016. Displacement, Disempowerment and Corruption: Challenges at the Interface of Fisheries, Management and Conservation in the Bijagós Archipelago, Guinea-Bissau. Oryx. 50(4): 693–701. https://doi.org/10.1017/S003060531500040X.

12. Intergenerational rights, equity and justice

What is this right about?



We are not drowning, we are fighting.

Brianna Fruean, Samoa



Intergenerational rights, equity and justice is defined as "meeting the needs of the present without compromising the ability of future generations to meet their needs" (Brundtland, 1987), and is at the heart of conservation. It speaks to the concept of fairness amongst all generations in the use and conservation of the environment and its natural resources.

Children and youth have a tangible contribution to make in solving critical societal challenges. Young people have the right to intergenerational equity and justice, and this includes rights to enjoy their cultural heritage and access and participate in the cultural life of their people, and the rights to education that shall be directed toward respect for the natural environment. However, there are numerous barriers for Pacific youth including culture, social norms, rural-urban divides and socioeconomic inequalities (Lee, 2019). Many Pacific youth who try to create space for themselves to represent their views can be reprimanded or accused of disrespecting their cultures and the wisdom of their elders (Craney, 2019). Despite this, there are a growing number of Pacific Islands youth that are finding ways to create spaces to be activists for social justice, climate change, environmental issues.

Why is it relevant to NbS?

NbS interventions that place a greater impact on shortterm costs and benefits and fail to take into account longer-term costs, benefits and trade-offs are likely to impinge on or violate the rights of future generations. The United Nations Framework Convention on Climate Change embeds intragenerational equity within the international climate change regime as a founding principle. Younger generations are expected to face climate change-induced or exacerbated extreme events across their lifetimes compared with older generations, such as wildfires, crop failures, droughts, river floods, heat waves, and tropical cyclones (Thiery et al., 2021). Vulnerability to climate change and disasters will likely depend on the frequency and intensity of exposure and a range of socioeconomic and demographic factors, such as income or gender (Ibid.).

In designing and implementing NbS, consideration should be given to the Pacific Youth Development Framework 2014–2023 that was developed by Pacific youth, and provides a coordinated approach to youth-centred development in the Pacific around four development outcomes (SPC, 2015): (a) more young people secure decent employment; (b) young people's health status is improved; (c) governance structures empower young people to increase their influence in decision-making processes; and (d) more young people participate in environmental action.

Case study: Bua youth say no to bauxite mining

The Bua Urban Youth (BUY) Network in Fiji raised strong concerns about bauxite mining being proposed for Wainunu District in Bua Province, and the commitments being made by their traditional leaders. Between 2011 and 2015, Xinfa commenced mining bauxite in two locations in the province of Bua, Fiji. The BUY highlighted that FPIC from all landowners and land-owning clans was not sought, as mining and government representatives stated that consent was sought only from local chiefs. BUY shared that permissions to mine did not take into account the rights and concerns of landowners, including indigenous youth as future resources holders. In 2015, BUY Network conducted research and surveyed communities in Wainunu District which found growing concerns among landowners for the impacts

of mining on their physical environment. Communities preferred to preserve their natural resources for their future generation because they considered themselves custodians and not owners, and while Wainunu communities wanted income generating activities for their district, they preferred revenue from familiar crops like yagona, dalo and vegetables, rather than mining. BUY Network advocated for the bauxite mining to stop and pressured government officials to review the approvals for the venture. BUY raised awareness on the environmental and social impacts of the mine, the lack of consent sought from landowners and landowning clans, and the voices of youth from the province who were opposed to mining and the environmental degradation occurring to their natural resources.

Source: SEEP. 2019. Mining Realities: Assessing State Compliance on the Rules of Engagement. Suva, Fiji

Annex 1: Definitions

- **Discrimination** refers to any distinction, exclusion, restriction or preference which is based on any ground such as race, colour, sex, language, religion, political or other opinion, national or social origin, property, birth or other status, and which has the purpose or effect of nullifying or impairing the recognition, enjoyment or exercise by all persons, on an equal footing, of all rights and freedoms.¹³
- Free, prior and informed consent (FPIC) is a specific right that pertains to Indigenous peoples that enables them to give or withhold consent to a project that may affect them or their territories. Once they have given their consent, they can withdraw it at any stage, and FPIC enables them to negotiate the conditions under which the project will be designed, implemented, monitored and evaluated.¹⁴
- Gender refers to the socially constructed roles, behaviours, activities, and attributes that a given society considers appropriate for men, women, and people of diverse genders. While sex refers to the biological and physiological differences between males and females, gender refers to the socially constructed roles, behaviours, and expectations that are associated with being a woman or man in a given society. Gender is a complex concept that influences how people perceive themselves and others, as well as how they interact with one another. Gender is also closely linked to power relations, as it often determines who has access to resources, opportunities, and decision-making processes in a given society.¹⁵
- Gender analysis is a process used to examine how gender roles, norms, and power relations affect the lives of women, men, and people of diverse genders. It is a systematic process that helps identify how gender differences and inequalities impact individuals and communities. The aim of gender analysis is to identify and understand the ways in which gender shapes people's experiences, opportunities, and outcomes, and to use this understanding to inform policies, programs, and interventions that promote gender equality and empowerment. Gender analysis involves gathering and analysing gender-specific data, and using this data to identify patterns, trends, and gaps in access to resources and opportunities. It also involves examining the social norms and attitudes that perpetuate gender inequalities and identifying strategies to address these norms and attitudes.¹⁶
- Gender equity, disability and social inclusion (GEDSI) refers to approaches to ensure people from all backgrounds, including women and gender diverse people, people with a disability and people facing another form of marginalisation are included and can contribute to Nature-based Solutions. A GEDSI lens is used to prevent unintended harm, exclusion and further marginalisation of at-risk groups, and to promote their rights, equitable opportunities and benefits.
- **Human rights** are rights inherent to all human beings, regardless of race, sex, nationality, ethnicity, language, religion, or any other status. Human rights include the right to life and liberty, freedom from slavery and torture, freedom of opinion and expression, the right to work and education, and many more. Everyone is entitled to these rights, without discrimination.
- **Human rights-based approach** is a conceptual framework for the process of human development that is normatively based on international human rights standards and operationally directed to promoting and protecting human rights. It seeks to analyse inequalities that lie at the heart of development problems and redress discriminatory practices and unjust distributions of power that impede development progress and often result in groups of people being left behind.¹⁷

¹³ United Nations Human Rights Special Procedures (2018)

¹⁴ https://www.fao.org/indigenous-peoples/our-pillars/fpic/en/

¹⁵ SPREP (2024), Gender Equity, Disability and Social Inclusion Policy. SPREP, Apia

¹⁶ Ibid.

¹⁷ UN Sustainable Development Group. UNSDG | Human Rights-Based Approach

Intergenerational equity refers to meeting the needs of the present without compromising the ability of future generations to meet their needs. It is the concept of fairness amongst all generations in the use and conservation of the environment and its natural resources.

Intersectionality is a conceptual or analytical framework for describing and understanding how a person's social identities combine to create different forms of discrimination and privilege, advantage and disadvantage. Examples of these social factors that define identity include gender, age, ethnicity, caste, sexuality, religion, disability, migrant status, history and economic status.¹⁸

Nature-based Solutions is defined as actions to protect, sustainably manage and restore natural and modified ecosystems in ways that address societal challenges effectively and adaptively, to provide both human well-being and biodiversity benefits.¹⁹

¹⁸ Crenshaw, Kimberlé (1989) Demarginalizing the intersection of race and sex: a black feminist critique of antidiscrimination doctrine, feminist theory and antiracist politics. University of Chicago Legal Forum. (1): 139–167

¹⁹ IUCN (2016) World Conservation Congress Resolution 069. Defining Nature-Based Solutions.

Annex 2: References

- Adams, E.A., Adams, Y.J., Koki, C., 2021. Water, sanitation, and hygiene (WASH) insecurity will exacerbate the toll of COVID-19 on women and girls in low-income countries. Sustainability: Science, Practice and Policy 17, 85–89. https://doi.org/10.1080/15487733.2021.1875682
- Aladuwaka, S., Momsen, J., 2010. Sustainable development, water resources management and women's empowerment: the Wanaraniya Water Project in Sri Lanka. Gender & Development 18, 43–58. https://doi.org/10.1080/13552071003600026
- Almudi, T., Berkes, F., 2010. Barriers to empowerment: fighting eviction for conservation in a southern Brazilian protected area. Local Environment 15, 217–232. https://doi.org/10.1080/13549830903575570
- Barclay, K., Leduc, B., Mangubhai, S., Vunisea, A., Namakin, B., Teimarane, M., Leweniqila, L., 2021. Pacific Handbook for Gender Equity and Social Inclusion in Coastal Fisheries and Aquaculture: Module 1 Introduction. Pacific Community, Noumea, New Caledonia.
- Bedi, H.P., Levitt Cea, J., 2019. Women and development-forced evictions: realities, responses and solidarity. Development in Practice 29, 1040–1052. https://doi.org/10.1080/09614524.2019.1615036
- Bell, J.D., Kronen, M., Vunisea, A., Nash, W.J., Keeble, G., Demmke, A., Pontifex, S., Andréfouët, S., 2009. Planning the use of fish for food security in the Pacific. Marine Policy 33, 64–76.
- Bennett, N.J., Dearden, P., 2014. Why local people do not support conservation: Community perceptions of marine protected area livelihood impacts, governance and management in Thailand. Marine Policy 44, 107–116. https://doi.org/10.1016/j.marpol.2013.08.017
- Bennett, N.J., Katz, L., Yadao-Evans, W., Ahmadia, G.N., Atkinson, S., Ban, N.C., Dawson, N.M., de Vos, A., Fitzpatrick, J., Gill, D., Imirizaldu, M., Lewis, N., Mangubhai, S., Meth, L., Muhl, E.-K., Obura, D., Spalding, A.K., Villagomez, A., Wagner, D., White, A., Wilhelm, A., 2021. Advancing Social Equity in and Through Marine Conservation. Front. Mar. Sci. 8, 711538. https://doi.org/10.3389/fmars.2021.711538
- Bille Larsen, P., Le Billon, P., Menton, M., Aylwin, J., Balsiger, J., Boyd, D., Forst, M., Lambrick, F., Santos, C., Storey, H., Wilding, S., 2021. Understanding and responding to the environmental human rights defenders crisis: The case for conservation action. CONSERVATION LETTERS 14. https://doi.org/10.1111/conl.12777
- Bocarejo, D., Ojeda, D., 2016. Violence and conservation: Beyond unintended consequences and unfortunate coincidences. Geoforum 69, 176–183. https://doi.org/10.1016/j.geoforum.2015.11.001
- Boyd, D.R., Keene, S., 2021. Human rights-based approaches to conserving biodiversity: equitable, effective and imperative, in: Policy Brief No. 1. A Policy Brief from the UN Special Rapporteur on Human Rights and the Environment. Presented at the United Nations Human Rights Special Procedures.
- Brundtland, G., 1987. Report of the World Commission on Environment and Development: Our Common Future. United Nations General Assembly document A/42/427.
- Campbell, John.R., 2019. Climate Change and Urbanisation in the Pacific Island Countries (Policy Brief No. 49). Toda Peace Institute, Japan.
- Carrard, N., Crawford, J., Halcrow, G., Rowland, C., Willetts, J., 2013. A framework for exploring gender equality outcomes from WASH programmes. Waterlines 32, 315–333. https://doi.org/10.3362/1756-3488.2013.033
- Carrard, N., Foster, T., Willetts, J., 2019. Groundwater as a Source of Drinking Water in Southeast Asia and the Pacific: A Multi-Country Review of Current Reliance and Resource Concerns. Water 11, 1605. https://doi.org/10.3390/w11081605
- Carrard, N., MacArthur, J., Leahy, C., Soeters, S., Willetts, J., 2022. The water, sanitation and hygiene gender equality measure (WASH-GEM): Conceptual foundations and domains of change. Women's Studies International Forum 91, 102563. https://doi.org/10.1016/j.wsif.2022.102563
- Castañeda Carney, I., Sabater, L., Owren, C., Boyer, A.E., 2021. Gender-based violence and environment linkages: summary for policy makers. IUCN, International Union for Conservation of Nature. https://doi.org/10.2305/IUCN.CH.2021.20.en

- Cinner, J.E., Huchery, C., MacNeil, M.A., Graham, N.A.J., McClanahan, T.R., Maina, J., Maire, E., Kittinger, J.N., Hicks, C.C., Mora, C., Allison, E.H., D'Agata, S., Hoey, A., Feary, D.A., Crowder, L., Williams, I.D., Kulbicki, M., Vigliola, L., Wantiez, L., Edgar, G., Stuart-Smith, R.D., Sandin, S.A., Green, A.L., Hardt, M.J., Beger, M., Friedlander, A., Campbell, S.J., Holmes, K.E., Wilson, S.K., Brokovich, E., Brooks, A.J., Cruz-Motta, J.J., Booth, D.J., Chabanet, P., Gough, C., Tupper, M., Ferse, S.C.A., Sumaila, U.R., Mouillot, D., 2016. Bright spots among the world's coral reefs. Nature 535, 416–419. https://doi.org/10.1038/nature18607
- Cohen, P.J., Lawless, S., Dyer, M., Morgan, M., Saeni, E., Teioli, H., Kantor, P., 2016. Understanding adaptive capacity and capacity to innovate in social–ecological systems: Applying a gender lens. Ambio 45, 309–321. https://doi.org/10.1007/s13280-016-0831-4
- Craney, A., 2019. Youth Leadership in Fiji and Solomon Islands: Creating Opportunities for Civic Engagement, in: Lee, H. (Ed.), Pacific Youth: Local and Global Futures. ANU Press, pp. 137–158. https://doi.org/10.22459/ PY.2019.06
- Cross, H., 2016. Displacement, disempowerment and corruption: challenges at the interface of fisheries, management and conservation in the Bijagós Archipelago, Guinea-Bissau. Oryx 50, 693–701. https://doi.org/10.1017/S003060531500040X
- FAO, 2016. Free, Prior and Informed Consent: An Indigenous people's right and a good practice for local communities, Manual for project practitioners. Food and Agricultural Organization, Rome.
- Farmery, A.K., Scott, J.M., Brewer, T.D., Eriksson, H., Steenbergen, D.J., Albert, J., Raubani, J., Tutuo, J., Sharp, M.K., Andrew, N.L., 2020. Aquatic Foods and Nutrition in the Pacific. Nutrients 12, 3705. https://doi.org/10.3390/nu12123705
- FELA, EDO, 2017. Regulating Fiji's coastal fisheries: policy and law discussion paper.
- Ferguson, C.E., Tuxson, T., Mangubhai, S., Jupiter, S., Govan, H., Bonito, V., Alefaio, S., Anjiga, M., Booth, J., Boslogo, T., Boso, D., Brenier, A., Caginitoba, A., Ciriyawa, A., Fahai'ono, J.B., Fox, M., George, A., Eriksson, H., Hughes, A., Joseph, E., Kadannged, S., Kubunavanua, E., Loni, S., Meo, S., Micheli, F., Nagombi, E., Omaro, R., Ride, A., Sapul, A., Singeo, A., Stone, K., Tabunakawai-Vakalalabure, M., Tuivuna, M., Vieux, C., Vitukawalu, V.B., Waide, M., 2022. Local practices and production confer resilience to rural Pacific food systems during the COVID-19 pandemic. Marine Policy 137, 104954. https://doi.org/10.1016/j.marpol.2022.104954
- Fitzpatrick, D., 2022. Research brief on land tenure and climate mobility in the Pacific (Research brief). Pacific Islands Forum Secretariat, Suva, Fiji.
- Fletcher, S.M., Thiessen, J., Gero, A., Rumsey, M., Kuruppu, N., Willetts, J., 2013. Traditional Coping Strategies and Disaster Response: Examples from the South Pacific Region. Journal of Environmental and Public Health 2013, 1–9. https://doi.org/10.1155/2013/264503
- Foale, S., Macintyre, M., 2000. Dynamic and flexible aspects of land and marine tenure at West Nggela: implications for marine resource management. Oceania 71, 30–45.
- Fong, P., 2022. Women and disability in the context of climate mobility. Pacific Resilience Partnership.
- Govan, H., Aalbersberg, W., Tawake, A., Parks, J., 2008. Locally-Managed Marine Areas: A guide for practitioners. Locally-managed marine area network, Suva.
- Graham, A., D'Andrea, A., 2021. Gender and human rights in coastal fisheries and aquaculture: a comparative analysis of legislation in Fiji, Kiribati, Samoa, Solomon Islands, Tonga and Vanuatu. Pacific Community, Noumea, New Caledonia.
- Graham, A., D'Andrea, A., in prep. Gender and human rights in coastal fisheries and aquaculture: a comparative analysis of legislation in the Federated States of Micronesia, Marshall Islands and Palau.
- Harper, S., Adshade, M., Lam, V.W.Y., Pauly, D., Sumaila, U.R., 2020. Valuing invisible catches: Estimating the global contribution by women to small-scale marine capture fisheries production. PLoS ONE 15, e0228912. https://doi.org/10.1371/journal.pone.0228912
- Hicks, C.C., Cohen, P.J., Graham, N.A.J., Nash, K.L., Allison, E.H., D'Lima, C., Mills, D.J., Roscher, M., Thilsted, S.H., Thorne-Lyman, A.L., MacNeil, M.A., 2019. Harnessing global fisheries to tackle micronutrient deficiencies. Nature 574, 95–98. https://doi.org/10.1038/s41586-019-1592-6
- Hockings, M., Dudley, N., Elliott, W., 2020. Editorial Essay: COVID-19 and protected and conserved areas. PARKS 7-24. https://doi.org/10.2305/IUCN.CH.2020.PARKS-26-1MH.en
- Hubert, A., 2007. Use of Fishermen Perception in Participative Resources Management: Case study in Navakavu (Fiji). CRISP Coordinating Unit (CCU), Secretariat of the Pacifi c Regional Environment Programme, New Caledonia, Noumea.

- Human Rights in Biodiversity Working Group, 2021. Implementing a human rights-based approach.
- Human Rights in Biodiversity Working Group, 2020a. Applying a human rights-based approach. Guidance on the application of a human rights-based approach in the post-2020 Global Biodiversity Framework.
- Human Rights in Biodiversity Working Group, 2020b. Implementing a human rights based approach. What is urgently needed to effectively adopt a human rights-based approach across the implementation, monitoring and reporting of the post-2020 global biodiversity framework.
- ILO, 2021. ILO Declaration on Fundamental Principles and Rights at Work. Inernational Labour Organization.
- IUCN, 2020. IUCN Global Standard for Nature-based Solutions: a user-friendly framework for the verification, design and scaling up of NbS: first edition, 1st ed. IUCN, International Union for Conservation of Nature. https://doi.org/10.2305/IUCN.CH.2020.08.en
- IUCN, 2016. World Conservation Congress Resolution 069. Defining Nature-based Solutions (Conference resolution). IUCN, Hawaii.
- Jenkins, A.P., Jupiter, S., Mueller, U., Jenney, A., Vosaki, G., Rosa, V., Naucukidi, A., Mulholland, K., Strugnell, R., Kama, M., Horwitz, P., 2016. Health at the Sub-catchment Scale: Typhoid and Its Environmental Determinants in Central Division, Fiji. EcoHealth 13, 633–651. https://doi.org/10.1007/s10393-016-1152-6
- Jenkins, Jupiter, Jenney, Naucukidi, Prasad, Vosaki, Mulholland, Strugnell, Kama, Crump, Horwitz, 2019. Environmental Foundations of Typhoid Fever in the Fijian Residential Setting. IJERPH 16, 2407. https://doi.org/10.3390/ijerph16132407
- Jonas, H., Makagon, J., Roe, D., 2016. Conservation standards: from rights to responsibilities. IIED Discussion Paper. IIED, London.
- Jonas, H.D., Ahmadia, G.N., Bingham, H.C., Briggs, J., Butchart, S.H.M., Cariño, J., Chassot, O., Chaudhary, S., Darling, E., de Gemmis, A., Dudley, N., 2021. Equitable and effective area-based conservation: towards the conserved areas paradigm. PARKS 71–84. https://doi.org/10.2305/IUCN.CH.2021.PARKS-27-1HJ.en
- Jorgensen, D., 2006. Hinterland History: The Ok Tedi Mine and Its Cultural Consequences in Telefolmin. The Contemporary Pacific 18, 233–263. https://doi.org/10.1353/cp.2006.0021
- Jupiter, S., Jenkins, A., Lee Long, W., Maxwell, S., Watson, J., Hodge, K., Govan, H., Carruthers, T., 2013. Pacific Integrated Island Management Principles, Case Studies and Lessons Learned. Secretariat of the Pacific Regional Environment Programme (SPREP), Apia, Samoa.
- Jupiter, S.D., Cohen, P.J., Weeks, R., Tawake, A., Govan, H., 2014. Locally-managed marine areas in the tropical Pacific: Diverse strategies to achieve multiple objectives 20, 165–179.
- Jupiter, S.D., Epstein, G., Ban, N.C., Mangubhai, S., Fox, M., Cox, M., 2017. A social-ecological systems approach to assessing conservation and fisheries outcomes in Fijian locally managed marine areas. Society & Natural Resources 30, 1096-1111. https://doi.org/10.1080/08941920.2017.1315654
- Jupiter, S.D., Jenkins, A.P., Negin, J., Anthony, S., Baleinamau, P., Devi, R., Gavidi, S., Mailautoka, K., Mangubhai, S., Naivalu, K., Naivalulevu, T., Naivalulevu, V., Masi, N., Naucunivanua, S., Nelson, S., Qauqau, I., Ratu, A., Ravoka, M., Thomas, J., Tukana, A., van Nimwegen, P., Wakwella, A., Wenger, A., Wilson, D., Horwitz, P., in review. Transforming place-based management within watersheds in Fiji: the Watershed Interventions for Systems Health project. PLos Water.
- Kelly, E., Lee, K., Shields, K.F., Cronk, R., Behnke, N., Klug, T., Bartram, J., 2017. The role of social capital and sense of ownership in rural community-managed water systems: Qualitative evidence from Ghana, Kenya, and Zambia. Journal of Rural Studies 56, 156–166. https://doi.org/10.1016/j.jrurstud.2017.08.021
- Kett, D.M., Sriskanthan, G., Cole, E., 2021. Disability and Climate Justice 108.
- Kirsch, S., Hadley, S., Burton, J., 1992. Social impact of the Ok Tedi mine on the Yonggom villages of the North Fly, 1992. Research in Melanesia 19, 23–102.
- Kitolelei, S., Soderberg, A., Qaqara, N., Prakash, S.S., Tuiono, M., Veitayaki, J., Piovano, S., 2022. Conservation status and cultural values of sea turtles leading to (un)written parallel management systems in Fiji. Ambio. https://doi.org/10.1007/s13280-022-01766-4
- Kitolelei, S., Thaman, R., Veitayaki, J., Breckwoldt, A., Piovano, S., 2021. Na Vuku Makawa ni Qoli: Indigenous Fishing Knowledge (IFK) in Fiji and the Pacific. Front. Mar. Sci. 8, 684303. https://doi.org/10.3389/fmars.2021.684303
- Lee, H. (Ed.), 2019. Pacific Youth: Local and Global Futures, 1st ed. ANU Press. https://doi.org/10.22459/PY.2019

- Lopes, P.F.M., Mendes, L., Fonseca, V., Villasante, S., 2017. Tourism as a driver of conflicts and changes in fisheries value chains in Marine Protected Areas. Journal of Environmental Management 200, 123–134. https://doi.org/10.1016/j.jenvman.2017.05.080
- Love, M.W., Beal, C., Gonzalez, D., Hagabore, J., Benjamin, C., Bugoro, H., Panda, N., O'oi, J., Offer, C., Souter, R., 2022. Challenges and opportunities with social inclusion and community-based water management in Solomon Islands. Development Policy Review 40. https://doi.org/10.1111/dpr.12597
- Mangubhai, S., Barclay, K.M., Lawless, S., Makhoul, N., 2023. Gender-based violence: Relevance for fisheries practitioners. Fish and Fisheries faf.12747. https://doi.org/10.1111/faf.12747
- Mangubhai, S., Lawless, S., 2021. Exploring gender inclusion in small-scale fisheries management and development in Melanesia. Marine Policy 123, 104287. https://doi.org/10.1016/j.marpol.2020.104287
- Mangubhai, S., Lumelume, R., 2019. Achieving forest conservation in Fiji through payment for ecosystem services schemes. Pac. Conserv. Biol. 25, 386. https://doi.org/10.1071/PC18057
- Mangubhai, S., Wilson, J.R., Rumetna, L., Maturbongs, Y., Purwanto, 2015. Explicitly incorporating socioeconomic criteria and data into marine protected area zoning. Ocean & Coastal Management 116, 523–529. https://doi.org/10.1016/j.ocecoaman.2015.08.018
- McFarlane, Rosemary.A., Horwitz, P., Arabena, K., Capon, A., Jenkins, A., Jupiter, S., Negin, J., Parkes, Margot.W., Saketa, S., 2019. Ecosystem services for human health in Oceania. Ecosystem Services 39, 100976. https://doi.org/10.1016/j.ecoser.2019.100976
- Minter, A., 2008. Compliance and Enforcement for Coastal Fisheries Management in Fiji. IUCN Regional Office for Oceania, Suva, Fiji.
- Mirti, A.V., Davies, S., 2005. Drinking Water Quality in the Pacific Island Countries. (microbiological pollutants results in diarrhoea, gastroenteritis and other health problems), SOPAC Joint Contribution Report 181. SOPAC, Suva.
- Mitchell, E., 2021. The Sukundimi walks before me: six reasons why the Frieda River mine must be rejected. Jubilee Australia Research Centre and Project Sepik.
- Miyamoto, K., Ehara, H., Thaman, R., Veitayaki, J., Yoshida, T., Kobayashi, H., 2021. Traditional knowledge of medicinal plants on Gau Island, Fiji: differences between sixteen villages with unique characteristics of cultural value. J Ethnobiology Ethnomedicine 17, 58. https://doi.org/10.1186/s13002-021-00481-w
- Nelson, S., Abimbola, S., Mangubhai, S., Jenkins, A., Jupiter, S., Naivalu, K., Naivalulevu, V., Negin, J., 2021.

 Understanding the decision-making structures, roles and actions of village-level water committees in Fiji.

 International Journal of Water Resources Development 1–18. https://doi.org/10.1080/07900627.2021.19
 16449
- Newing, H., Perram, A., 2019. What do you know about conservation and human rights? Oryx 53, 595–596. https://doi.org/10.1017/S0030605319000917
- OHCHR, UNEP, 2020. Right to a healthy environment: good practices. Report of the Special Rapporteur on the issue of human rights obligations relating to the enjoyment of a safe, clean, healthy and sustainable environment. UN Special Rapporteur on Human Rights and the Environment.
- Oldekop, J.A., Holmes, G., Harris, W.E., Evans, K.L., 2016. A global assessment of the social and conservation outcomes of protected areas: Social and Conservation Impacts of Protected Areas. Conservation Biology 30, 133–141. https://doi.org/10.1111/cobi.12568
- Pacific Islands Forum Secretariat, 2016. Pacific Framework for the Rights of Persons with Disabilities 2016-2025:

 A regional framework to support national government actions on inclusive development for the rights of persons with disabilities. Pacific Island Forum Secretariat, Suva, Fiji.
- Rao, N., Carruthers, T., Anderson, P., Sivo, L., Saxby, T., Durbin, T., Jungblut, V., Hills, T., Chape, S., 2013. An economic analysis of ecosystem-based adaptation and engineering options for climate change adaptation in Lami Town, Republic of the Fiji Islands: technical report. Secretariat of the Pacific Regional Environment Programme, Apia.
- Redman-MacLaren, M., Barrington, D.J., Harrington, H., Cram, D., Selep, J., MacLaren, D., 2018. Water, sanitation and hygiene systems in Pacific Island schools to promote the health and education of girls and children with disability: a systematic scoping review. Journal of Water, Sanitation and Hygiene for Development 8, 386–401. https://doi.org/10.2166/washdev.2018.274
- Richards, A., Irving, C., McHattie, C., Wilcox, K., Matreja, T., Mitchell, E., Strachan, F., Naikasowalu, T., 2021. A line in the sand. Caritas Fiji, Fiji Council of Social Services and Jubilee Australia.

- Riechers, M., Balázsi, Á., Abson, D.J., Fischer, J., 2020. The influence of landscape change on multiple dimensions of human nature connectedness. E&S 25, art3. https://doi.org/10.5751/ES-11651-250303
- Rohe, J., Schlüter, A., Ferse, S.C.A., 2018. A gender lens on women's harvesting activities and interactions with local marine governance in a South Pacific fishing community. Maritime Studies 17, 155–162. https://doi.org/10.1007/s40152-018-0106-8
- Sam, J.-M., Todd, S.K., 2020. Women as hand pump technicians: empowering women and enhancing participation in rural water supply projects. Development in Practice 30, 357–368. https://doi.org/10.1080/09614524. 2019.1703904
- Schleicher, J., Zaehringer, J.G., Fastré, C., Vira, B., Visconti, P., Sandbrook, C., 2019. Protecting half of the planet could directly affect over one billion people. Nature Sustainability 2, 1094–1096. https://doi.org/10.1038/s41893-019-0423-y
- Sharan, A., Lal, A., Datta, B., 2021. A review of groundwater sustainability crisis in the Pacific Island countries: Challenges and solutions. Journal of Hydrology 603, 127165. https://doi.org/10.1016/j.jhydrol.2021.127165
- Singeo, A., Ferguson, C.E., 2022. Lessons from Palau to end parachute science in international conservation research. Conservation Biology. https://doi.org/10.1111/cobi.13971
- Smallhorn-West, P., Allison, E., Gurney, G., Karnad, D., Kretser, H., Lobo, A.S., Mangubhai, S., Newing, H., Pennell, K., Raj, S., Tilley, A., Williams, H., Peckham, S.H., 2023. Why human rights matter for marine conservation. Front. Mar. Sci. 10, 1089154. https://doi.org/10.3389/fmars.2023.1089154
- SOPAC, 2004. Harvesting the Heavens: A manual for participatory training in rainwater harvesting (Miscellaneous report No. 544). SOPAC, Suva, Fiji.
- SPC, 2015. The Pacific Youth Development Framework 2014–2023 A coordinated approach to youth-centred development in the Pacific. The Pacific Community, Suva.
- Swales, S., Storey, A.W., Roderick, I.D., Bakowa, K.A., Tenakanai, C.D., 1998. Biological monitoring of the impacts of the Ok Tedi copper mine on fish populations in the Fly River system, Papua New Guinea. Sci Total Environ 99–111. https://doi.org/10.1016/s0048-9697(98)00057-6. PMID: 9646519.
- Tantoh, H.B., McKay, T.T.J.M., Donkor, F.E., Simatele, M.D., 2021. Gender Roles, Implications for Water, Land, and Food Security in a Changing Climate: A Systematic Review. Front. Sustain. Food Syst. 5, 707835. https://doi.org/10.3389/fsufs.2021.707835
- Thiery, W., Lange, S., Rogelj, J., Schleussner, C.-F., Gudmundsson, L., Seneviratne, S.I., Andrijevic, M., Frieler, K., Emanuel, K., Geiger, T., Bresch, D.N., Zhao, F., Willner, S.N., Büchner, M., Volkholz, J., Bauer, N., Chang, J., Ciais, P., Dury, M., François, L., Grillakis, M., Gosling, S.N., Hanasaki, N., Hickler, T., Huber, V., Ito, A., Jägermeyr, J., Khabarov, N., Koutroulis, A., Liu, W., Lutz, W., Mengel, M., Müller, C., Ostberg, S., Reyer, C.P.O., Stacke, T., Wada, Y., 2021. Intergenerational inequities in exposure to climate extremes. Science 374, 158–160. https://doi.org/10.1126/science.abi7339
- Thomas, A., Mangubhai, S., Fox, M., Meo, S., Miller, K., Naisilisili, W., Veitayaki, J., Waqairatu, S., 2021. Why they must be counted: Significant contributions of Fijian women fishers to food security and livelihoods.

 Ocean & Coastal Management 205, 105571. https://doi.org/10.1016/j.ocecoaman.2021.105571
- Thornton, D.F., 2022. Financing planned relocation and human mobility in the context of climate change in the Pacific region. Pacific Resilience Partnership, Suva, Fiji.
- UN Children's Fund, 2021. Make it count: Guidance on disability inclusive WASH programme data collection, monitoring and reporting. UNICEF, New York.
- UN Habitat, 2014. Assessing the impact of eviction handbook. Barriers to empowerment: fighting eviction for conservation in a southern Brazilian protected area, Nairobi.
- UN Human Rights Procedures, 2018. Framework principles on human rights and the environment. The main human rights obligations relating to the enjoyment of a safe, clean, healthy and sustainable environment. Framework Principles on Human Rights and the Environment (2018) | OHCHR
- UN Women, 2021a. Diverse SOGIESC Rapid Assessment Tool. To Assess Diverse SOGIESC Inclusion Results In Humanitarian Contexts. UN Women, Suva.
- UN Women, 2021b. Climate change, disasters and gender-based violence in the Pacific. UN Women Fiji Multi-Country Office, Suva, Fiji.
- UN Women, 2012. Rural Pacific Island Women and Agriculture: Literature Review and Annotated Bibliography. UN Women, Suva.

- UNEP, 2018. Who are environmental defenders? [WWW Document]. UNEP UN Environment Programme. URL http://www.unep.org/explore-topics/environmental-rights-and-governance/what-we-do/advancing-environmental-rights/who (accessed 8.4.22).
- UNHCHR, FAO, 2010. The Right to Adequate Food (No. AFct Sheet No. 34). Office of the UN High Commissioner for Human Rights and the Food and Agricultural Organization, Switzerland.
- Vave, R., 2022. Five culturally protected water body practices in Fiji: Current status and contemporary displacement challenges. Ambio 51, 1001–1013. https://doi.org/10.1007/s13280-021-01620-z
- WCS, 2018. Watershed Interventions for Systems Health in Fiji.
- WHO, 2017. Guidelines for drinking water quality. Fourth edition incorporating the addendum. World Health Organization, Geneva.
- WHO, 2016. Sanitation, drinking water and health in Pacific Island Countries: 2015 Update and Future Outlook. World Health Organization, UN Habitat, UNICEF, Pacific Community, Suva.
- WWF, 2020. Belching out copper, gold and wasteWWF [WWW Document]. World Wildlife Fund. URL https://wwf.panda.org/discover/knowledge_hub/where_we_work/new_guinea_forests/problems_forests_new_guinea/mining_new_guinea/ok_tedi_forest_new_guinea/ (accessed 5.1.23).
- Ybarra, M., 2016. "Blind passes" and the production of green security through violence on the Guatemalan border. Geoforum 69, 194–206. https://doi.org/10.1016/j.geoforum.2015.06.004
- Yerian, S., Hennink, M., Greene, L.E., Kiptugen, D., Buri, J., Freeman, M.C., 2014. The Role of Women in Water Management and Conflict Resolution in Marsabit, Kenya. Environmental Management 54, 1320–1330. https://doi.org/10.1007/s00267-014-0356-1



Produced by the Secretariat of the Pacific Regional Environment Programme (SPREP)

SPREP

PO Box 240, Apia, Samoa Telephone: +685 21929 Email: sprep@sprep.org Website: www.sprep.org