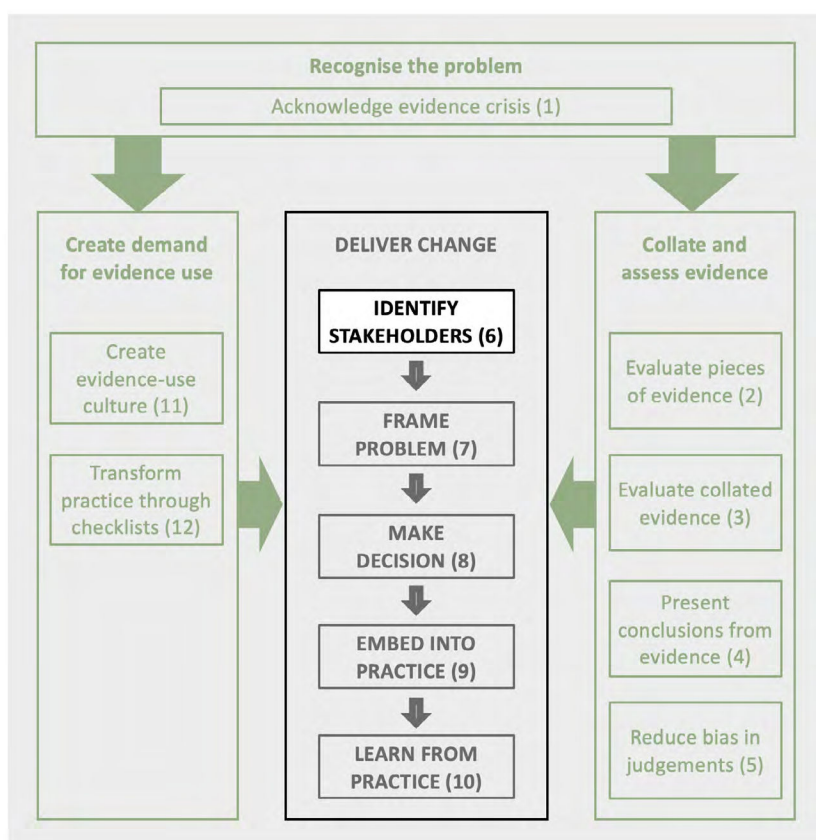


## 6. Identifying Stakeholders and Collaborating with Communities

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Working with communities, including local and Indigenous communities, is fundamental to most successful conservation practice. Key elements include determining the appropriate level of engagement, identifying the key stakeholders, identifying appropriate means of collaborating with different stakeholders, creating and maintaining trust, and collaborating to deliver the objectives.



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## 6.1 The Benefits of Community-Working

1. The natural environment is embedded within the cultural–political–economic systems in which communities live their lives. These communities are affected by conservation decisions, and in turn, their decisions, responses and actions often determine conservation outcomes. There are thus several reasons why such communities should be involved in conservation decision making.
2. Moral and legal: local communities and Indigenous peoples have a moral and legal right (embodied in international human rights law) to be involved in decision making about the land, waters, and ice that they may have lived on and stewarded for generations. Despite legal rights, these communities have often been, and continue to be, evicted from their homes and may face diluted land rights in the name of conservation (Adams and Mulligan, 2002; Sandlos, 2005; Borrás et al. 2011).
3. Improved evidence for decision making: communities often hold considerable knowledge about their traditional and ancestral territories with positive associated conservation outcomes (Schuster et al. 2019); similarly, in landscapes of intensive agriculture and urbanised populations, communities may hold important knowledge of the locale and its history. Such knowledge should be respectfully included by scientists who could learn from lay, place-based stories of what works for conservation, and what does not; for example, Australian Aborigines possess sophisticated knowledge of the consequences of different types of fires (Pascoe and Gammage, 2021). Conversely, the loss of traditional knowledge, or the disappearance of traditional practices, can lead to impoverishment and decline in the quality of semi-natural habitats surviving as relics in modern, transformed landscapes; knowledge of their past management can be key to their successful future management. The United Nations (UN) Convention on Biological Diversity (CBD) specifically recognises the value of Indigenous and local knowledge and highlights the need to protect it.
4. Building support for conservation: interventions made in the name of conservation should benefit, or at least not negatively impact, local and Indigenous communities, for example by not restricting traditional sources of food and income or violating spiritual and cultural practices. It is then far more likely that projects will work and be durable, with ongoing community support and ownership, and will serve to begin the process of repairing relationships that have not necessarily been developed in honourable ways in the past (Wong et al. 2020).

Box 6.1 summarises key principles for collaborating with local and Indigenous communities.

### Box 6.1 Principles and methods for working with local and Indigenous communities

Local and Indigenous peoples lead lives that are particularly intertwined with the natural environment. Indeed, the worldview of Indigenous peoples is that they are part of nature not separate from it (United Nations, 2009).

#### *Define a clear purpose for engaging with communities*

Making conservation decisions in a participatory fashion with communities is important (Section 6.1). However, participation is a spectrum of forms of engagement from the close and equal sharing of power associated with co-production and co-design down to exploitative and tokenistic consultation, education, or coercion of those with the least power (Arnstein, 1969; Bell and Reed, 2021). A clearly defined and communicated engagement plan can help identify potential problems and offer opportunities to correct them.

#### *Engage appropriately to build local ownership*

Ensuring local and Indigenous communities have a sense of ownership over a project or intervention is a prerequisite to working successfully with them. Engagement should take place well before the planning stage of a project and needs to happen throughout each stage of its conceptualisation, from implementation and monitoring to evaluation (Hunt, 2013). Approach engagement on the community's terms. Let them determine who is at the table and understand that this could look different from community to community, as each group will offer diverse perspectives and provide opportunities for capacity building. Developing and selecting topics of interest should ideally be done in collaboration, as projects of interest for Indigenous and local communities can look very different from those of interest to scientists.

The UN and international legal framework of Free Prior Informed Consent (FPIC) have core principles of the policy of self-determined development and respect for the knowledge of Indigenous peoples, their cultures and traditions, which are valuable to the conservation and sustainable use of natural resources. The community should be engaged before starting the project to foster shared objectives and share decision-making power.

#### *Understand 'the community' and the power relationships within it*

There is no such thing as a homogeneous community. Every community is different and every person within a community is different. It is critical to ensure that community engagement strategies reflect an understanding of these differences and the power

relationships that affect who has a place at the table and who does not. Effective engagement most likely means identifying locally relevant stakeholder groups within the community (which may be socially stratified by age, wealth, caste, gender, or occupation) and ensuring separate discussions are held with each group so that all voices can be heard and taken into account.

*Use participatory approaches*

Making use of participatory approaches (interviews, focus groups, discussions and workshops) helps to deliver successful project outcomes (Hou-Jones et al., 2021). The specific approaches used should be tailored to the cultural norms of the community.

*Develop trust and manage conflict effectively*

The chosen spaces for discussion and collaboration need to be safe and foster trust (Ermine, 2007; Bell and Reed, 2021) to create lasting participatory engagement (Madden and McQuinn, 2014; National Coalition for Dialogue and Deliberation, 2010). An attitude open to community collaboration is required, with sufficient time allowed to build trust, depending on the starting point of the various relationships at the project's outset (Madden and McQuinn, 2014). For collaborative meetings, it is recommended to use facilitators who are Indigenous or who adequately understand Indigenous ways of knowing; they also need to be fluent in relevant languages or be able to communicate via a translator, if required.

*Foster two-way dialogue and transparency*

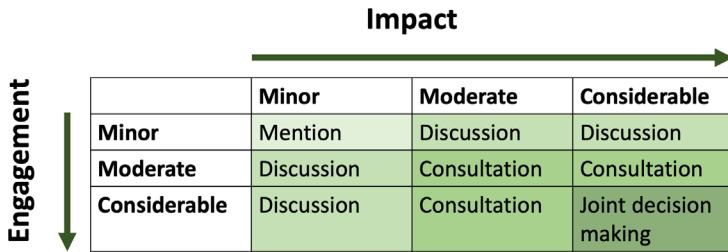
Cultural factors, gender, and income inequality, the digital divide, amongst other factors, can result in an unequal representation of views (Bell and Reed, 2021; Hurley et al., 2022). The ability to travel to meetings or to engage online, to discuss matters in a common language, and to find the time to engage, will not be equal among participants.

Trust and transparency can also be fostered by creating a two-way reflexive dialogue. This means letting communities know how their knowledge and opinions have affected decision making and creating the feedback loops necessary to show that they have been listened to. Language is important to consider, particularly in areas where the Indigenous or local languages have historically been suppressed by authorities. Consideration should also be given to the preferred method for communication of information; highly technical written material should not be prioritised if local communities have an oral tradition.

## 6.2 Types of Community Engagement

The benefits of community working, whether with Indigenous communities exercising traditional rights and practices or local communities in often intensively managed landscapes, essentially emerge from a wider understanding and deeper appreciation of views, interests,

rights and responsibilities of the parties involved. The appropriate type of community engagement depends on the impact of actions and extent of involvement (Figure 6.1). A proposal to create a wildflower area behind the churchyard may simply justify mentioning in local media while a river restoration project that overlaps land with Indigenous rights will usually be expected to have deep collaboration and to only proceed with the consent of the community.



**Figure 6.1** Appropriate type of community involvement according to the likely impact caused by the proposal and the extent of community engagement in the site. (Source: authors)

Table 6.1 lists the different levels of engagement ranging from incorporating information from the community to providing information to aid a community’s decision. The lower levels of involvement apply where there are few external responsibilities. Resources and timelines for conservation projects may practically influence the level of engagement that is possible (White et al., 2022). Of course, the level of engagement has to reflect the risks or likelihood of adverse impact; for instance, in the UK the consultation and negotiation associated with discussions on the reintroduction of long-extinct beavers (with concerns over flooding and tree damage) or lynx (with concerns for sheep and pets) far exceed that involved with the return of locally extinct butterflies or orchids.

Stakeholder analysis at the outset can be used to frame both these levels of concern and the level of appropriate response. Partnerships on all sides need to consider what the project aims to achieve, and what level of engagement is appropriate.

**Table 6.1** Types of interactions with communities.

Type of interaction	Description
Finding and including information	Using existing information provided by the community
Requesting information	Asking community members for relevant information
Consulting	Speaking to individuals or groups prior to decision making
Involving	Individuals or representatives present and consulted during decision making but not final decision makers
Co-assessing	Collaboratively look at the full range of evidence and assess
Co-operation	Community members or representatives work on and in the projects

Type of interaction	Description
Collaboration	Individuals or representatives fully involved as equal in decision making
Co-production	Community knowledge and expertise brought together with technical conservation knowledge and expertise to jointly create and use information produced
Co-decision	Joint decision with community and conservationists
Informing	Providing information to aid communities in making their own decisions

### 6.3 Identifying Who to Collaborate With

Human communities are complex. The groups and sub-groups that will be impacted by the proposed intervention, and in turn that the intervention will be impacted by, need to be identified at the initial stages of project development. These could be community groups, Indigenous communities, non-governmental organisations, or associations representing different interest groups. A point of contact with each identified group should be established at this stage as the impacts on and by the groups will differ. It is also important to recognise that there may be differences *within* groups and efforts should be made to understand these differences and take them into account where necessary. Table 6.2 lists the groups that need to be identified and acknowledged accordingly.

**Table 6.2** Groups that may be impacted by interventions and other key figures.

Group	Description
<b>Concerned groups</b>	Communities, including governmental and non-governmental agencies, with specific concerns about the management decisions and who have obligations to manage parts or all of the important resources.
<b>Dependent groups</b>	Those whose livelihoods may be at stake due to their dependence on the resources under consideration.
<b>Groups with claims</b>	Communities with territory or resource claims or any form of traditional or legal rights, claims or entitlements.
<b>Holders of knowledge and skills</b>	Who are the most knowledgeable individuals or groups in the area? Does local, valuable knowledge pertain to the conservation question?
<b>Impacted groups</b>	Made up of those who live in close proximity to an intervention site and who may be physically, culturally or economically affected directly by the intervention.
<b>Impacting groups</b>	Groups with members whose activities may be impacting the area or its natural resources, legal or otherwise.
<b>Managers and users</b>	Are there individuals or groups that currently manage the area and its resources or have done so in the past?

Group	Description
<b>National authorities</b>	Are there any national authorities with the mandate to develop and implement policies and rules regarding the area and its resources?
<b>Neighbours</b>	Who are the individuals or communities living near the resources?
<b>Potential investors</b>	Who are the individuals or groups who may be willing to invest human and/or other capital resources in the area and resources at stake?
<b>Special circumstances</b>	Perhaps the resource use and dependence by the group in question are affected by seasons (e.g. are there seasonal migration patterns or any seasonal events that have important impacts on the area and its resources?) or other factors.
<b>Traditional authorities</b>	Who are the traditional authorities in the area at stake?
<b>Trusted individuals</b>	Are there individuals or groups who are particularly trusted, e.g. as being skilled in conflict management, liaison, and facilitation?

A key stage in this process is to undertake a stakeholder mapping and analysis exercise (see Box 6.2) to determine who should be included, keeping in mind that this list may change due to various reasons, such as capacity or interest.

## 6.4 Initiating Contact

Prior to establishing contact with a community group, it is important to be clear on why changes to an existing situation are necessary. Then outline the anticipated level of engagement required (see Table 6.1). A consultation programme might start by assessing existing levels of evidence and resources (Sutherland et al., 2017), and researching any past history of challenge or conflict so that clear expectations can be set when first interacting. It is useful at this stage to find out what has, or has not, worked well for previous conservation projects in that (or a similar) community and the reasons why. This can provide a framework for the consultation

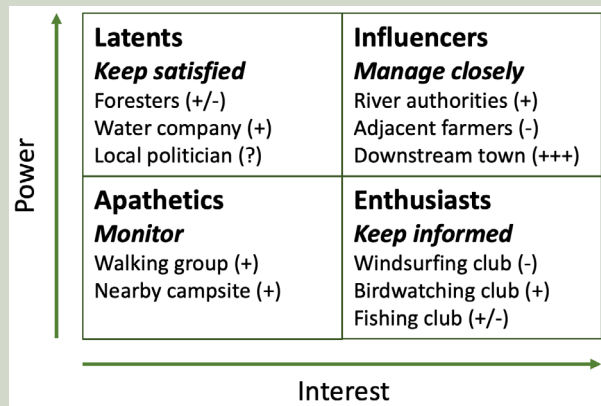
### Box 6.2 Stakeholder mapping and analysis

Stakeholder mapping is a simple visual technique that enables the depiction of all the stakeholders of a project on one diagram and leads to stakeholder analysis. This example is for a proposal to restore a section of canalised river.

1. Articulate the focus of the mapping.
2. What exactly does the mapping hope to achieve? This may be a subset of the overall programme.
3. Identify stakeholders.



4. Decide the key groups that pertain to the focus of the map (see Table 6.2). In a group, this may be done with post-it notes or added to a flipchart.
5. Identify criteria.
6. Decide upon the key criteria that affect who is useful to consult, such as influence and interest.
7. Analyse stakeholders.
8. Discuss and ask questions to determine where individuals are placed along the criteria. Place in categories usually either low/high or low/medium/high, for instance on power (might they affect the decisions or not) and interest (are they showing considerable interest or not).
9. Map stakeholders.
10. Place each stakeholder within a matrix of the two criteria (Figure 6.2). If a third criterion is used, such as interest in evidence, then this can be represented by font size, colour or whether bold/normal/italic.
11. Use the power/interest matrix to guide the engagement strategy.



**Figure 6.2** Stakeholder mapping classifying them into four groups depending on their interest and power. Support shown in brackets. (Source: authors)

12. Prioritise stakeholders.

Stakeholder analysis (Table 6.3) is used to assess the potential role of each stakeholder. This is then used as the basis for determining those stakeholders with the most influence on a project, i.e. which stakeholders to concentrate efforts on and the appropriate engagement approach for each.

Stakeholder mapping thus allows project managers to understand who their stakeholders are, helps identify those who may have the greatest impact on the success of an initiative, and provides the foundations for an engagement/communications plan. This information can then be tabulated in more detail, as in the following stakeholder analysis. Critically, it is important to bear in mind that the most vociferous of voices are not always the ones to most closely adhere to – they may be loud but ill-informed or unrepresentative of the community.

**Table 6.3** An example of a stakeholder analysis.

<b>Name and contact details</b>	<b>Impact: low, medium, high</b>	<b>Influence: low, medium, high</b>	<b>What is important to them</b>	<b>How could they contribute?</b>	<b>How could they block the project?</b>	<b>Engagement strategy</b>
River authorities Alex Lamprey a.lamprey@gmail.com	High	High	Reduced flood risk	Provide funding	Not fund if consider not cost effective or influenced by objections	Agree to collaborate on hydrological models
Fishing community spokesperson Maria Sturgeon Mobile: 03145 926535	High	Medium	Fish population and suitable fishing areas	Could help maintain site	Might object if consider detrimental to fish or trees block fishing	Take to meet fishing community on other restored sites. Agree on retaining tree-free locations
Local bird club (based at the museum)	Medium	Low	Good bird watching along the river with places to watch from	Could monitor changes	Unlikely but might complain if vegetation prevents seeing river	Keep informed and agree on access points to birdwatch

There is a range of software that can help with the creation of stakeholder mapping and analyses.

process. Following local protocols is important, including, where appropriate, the provision of gifts or recompensation for time and effort.

## 6.5 Creating and Maintaining Trust

Trust is the basis for almost everything we do (Frei and Morriss, 2020). Effective community relationships are dependent upon trust; for example, Lachapelle and McCool (2012) suggested that the lack of trust with conservation agencies was often the fundamental barrier to the negotiation and construction of natural resource management plans. More positively, Young et al. (2016) showed how increased trust, through fair processes, makes conflict resolution more likely.

The elements of trust can be classified as Contractual trust (promises upheld, commitments and expectations explicit, participants can rely on each other), Communication trust (key information provided appropriately and important material not withheld), Competency trust (collaborators will deliver knowledgeably and effectively), and Caring trust (support for diversity of needs and understanding when needed).

Frei and Morriss (2020) suggest that people are trusted when others think they are interacting with the real person (authenticity), when others have faith in their judgement and competence (logic), and when others believe that they are cared about (empathy). Achieving and maintaining trust takes time (but can be lost quickly) and requires an approach including being honest about objectives, showing integrity, listening to concerns from a broad community, asking questions with genuine curiosity, showing humility, sharing knowledge effectively, being helpful, delivering on promises, admitting mistakes, giving credit, and providing praise.

## 6.6 Collaborating

The beginning of any project never starts with a blank sheet. There are always existing interests and resource uses that need to be understood. Critical questions at the outset of a project consultation include the role of individuals and communities engaged in the consultation, the extent to which existing activity or usage can be relocated elsewhere, what the current position is (including the veracity of assumptions), the range of views, and what means are required to find out the answers. Initial or pre-engagement consultations benefit from a sense of direction, even if it takes time to complete, to encourage focus in discussions.

Some projects never find such a compromise: consensus does not always lead to an agreed or successful outcome. Even reaching a consensus can be difficult or impossible in wide consultations, where some participants may have opinions that are difficult to reconcile. Nevertheless, the discussions and meetings, proposals and counter proposals should have led all participants to understand why the decision was ultimately chosen and what the level or distribution of support for it was.

Bringing together different communities can be challenging, with the potential for significant disagreement and conflict. There are often skilled intermediaries or trusted facilitators in communities who can help to reduce biases and power inequalities as well as manage conflicts. For collaborative initiatives with Indigenous peoples, it is recommended to use facilitators who are Indigenous or who adequately understand Indigenous worldviews and ways of knowing.

For projects in developed countries with large urban populations or nationally-based interest groups, facilitators from more neutral or widely respected organisations are more appropriate. In all cases it is key that a facilitator can speak the local language and understands local cultural norms. Once trust and understanding have been gained between the parties involved, the further services of such facilitators may not be necessary.

For interventions that involve research, there are often ethical standards that need to be observed. Most universities and research institutes will have their own ethics procedures but, in the absence of these, external codes of conduct can be used such as the code of ethics of the Society for Ethnobiology (<https://ethnobiology.org/about-society-ethnobiology/ethics>).

Everything is more complicated than it seems. Successful projects acknowledge this truth. Their hallmark is a complex mix of engagement with communities and stakeholders from the outset, leading to compromise and an agreed common vision of what needs to be achieved and how.

Relationship building is key and usually goes well beyond the scope of a single project. This element is foundational to the success of a truly co-developed and collaborative project. Building a solid relationship takes considerable time, commitment, and continued nurturing. Ideally, effort should be made to build the relationship with key partners, specifically local people, local interest groups and Indigenous communities, and should be pursued well in advance of any specific project. Building such relationships outside of the pressures of meeting objectives or ties to any project goals helps to show the sincerity and commitment of an organisation to a particular area or community. This often means, when possible, ethical, frequent and accepted participation in a community's events and activities, creating bonds with community members, and hosting meetings and discussions on a broad range of topics. For example, in remote locations, an individual's role as a representative of a conservation organisation remains even outside working hours. Getting involved in community activities outside of work hours helps foster stronger and more meaningful relationships. This may mean participating in cultural celebrations, weddings, funerals, festivals, or feasts, or other events that might fall well outside of the normal scope of one's organisational duties.

Community meetings benefit from an open and flexible approach that allows for the scope of discussion to change depending on the priorities and issues that are raised by community members. Moreover, it is important, especially with Indigenous communities, to conduct meetings in places that make sense to them, which typically means hosting a gathering on the lands, ice, and waters in question. Keeping a balance between the players involved is critical, and Madden and McQuinn (2014) provide some advice on how to balance the 'cards' participants are holding. Examples of this balancing can range from things like using various facilitation and structural methods to ensure all voices are heard in meetings or ensuring that data sovereignty is rigorously upheld.

Prior to any project getting underway, it is important to determine how a community's knowledge and information will be used and stored. For example, First Nations in Canada have principles of ownership, control, access, and possession (or OCAP™), which assert their stewardship of their information and data. Courses and workshops are available for researchers

and are highly recommended before conducting any work. Moreover, Inuit in Canada have also put together the National Inuit Strategy on Research (Inuit Tapiriit Kanatami, 2018), which aims to advance Inuit governance, capacity, and access to research processes in Inuit Nunangat. Ensuring that researchers follow guidance from the communities will help build trust and foster the relationship, while at the same time working to advance projects in a manner that respects the communities' involvement.

The Healthy Country Planning approach to the Open Standards for the Practice of Conservation co-develops conservation projects with Indigenous partners (Carr et al., 2017). Adopted by many conservation planners around the world, this approach provides a foundation for 'Two-Eyed Seeing' (or *Etuaptmumk*), coined by Mi'kmaq Elders Albert and Murdena Marshall, this is the principle of bringing together Indigenous and western ways of knowing through seeing the strengths of each perspective, viewing the world with the 'two eyes' (i.e. from both sides) and advancing in a collaborative space (Reid et al. 2020). The approach allows cultural and socio-economic objectives to parallel and overlap the ecological and quantitative ones. This enables the co-creation of conservation projects and sharing decision making.

Box 6.3 gives a range of examples of conservation projects for which community engagement was fundamental.

### Box 6.3 Examples of community engagement

#### *Chiixuu Tll iinasdll – kelp forest restoration project*

This project, aimed to enable the recovery of an area of kelp forest through the removal of hyperabundant sea urchins (*guudingaay*) (Bellis et al., 2019), at Gwaii Haanas National Park Reserve, Canada, is an example of approaching engagement on a community's terms. The Gwaii Haanas Gina 'Waadluxan KilGuhlGa (Talking about Everything) Land–Sea–People Management Plan (Council of the Haida Nation and Canada, 2018) was organised on the six Haida ethics and values (respect, responsibility, interconnectedness, balance, seeking wise council, and giving and receiving). These principles underpinned the planning and delivery of the project, which was co-developed with the Haida Nation and the Haida Fisheries Program. A delivery of sea urchins to local communities several times through the project was an important communication approach that enabled engagement and dialogue over food. Monitoring suggests this programme has been beneficial for kelp species, kelp cover and northern abalone and this approach has acted as a model for collaborative working elsewhere by establishing enduring working relationships that are respectful of the social and ecological context of each place (Lee et al., 2021).

#### *Sapo National Park Liberia*

The Sapo National Park, which provides refuge to many rare and endemic species, was established in 1983 under the military decree. There was no community engagement, with

communities moving out of the area. The National Park was further expanded without engaging the community and with further eviction. Though there was not any form of resistance, the communities were aggrieved. Failure to properly engage the community was detrimental and there was a clash between the locals and the rangers that tragically led to a ranger dying. However, reconciliation and making a change to proper community engagement after the tragic incident turned everything around. The community became partners in protecting the National Park. This was seen clearly in the growing enthusiasm and dedication of the community members as they even will go as far as helping to get rid of illegal miners and poachers dwelling within the park. They will arrest the defaulters and take them to the local chief, something that the ranger force was unable to achieve in the past. Sapu National Park has been transformed from being a Park in danger of losing its biodiversity and natural resources to a fully functioning protected area where local communities are deliberately acting to protect their heritage.

#### *New Forest New Future programme*

The New Forest (a National Park since 2005) is one of the most important areas of unenclosed pasture, forest and lowland heathland in the UK. The New Forest New Future programme, initiated in 1997, brought together those with an interest in the New Forest's future (foresters, naturalists, statutory bodies, representatives of the Commoners that graze the forest with their animals, and the Verderers that manage the affairs of the Commoners across the Forest, local communities, tourism interests and local economic interests). The eventual objective was to agree on a management plan, specifically for the Forest's timber inclosures (those areas where the management of trees for timber production is permitted under the New Forest Acts) whose management was particularly contentious. The programme comprised meetings and presentations, field visits, discussions, and planning events, at which all parties presented information and insight into their particular interests and concerns. These events ensured that those engaged in the subsequent, more detailed, consultations appreciated the legal, economic, or other aspects of importance in the forest from all other viewpoints. Most of the participants became known to each other, and indeed in many instances, became friends. The programme led to agreement on a management plan, reviewed every five years, which, 25 years on from its inception, continues to deliver an agreed programme of habitat restoration and management that is widely understood and largely endorsed by all the disparate parties with an interest in the future of the New Forest.

#### *Beyond Borders Caribou Workshop series*

These events, hosted by Parks Canada for Wapusk National Park and the greater Wapusk Ecosystem (Environment and Climate Change Canada, 2022), brought together Indigenous communities (Cree, Dene, Inuit and Métis), government organisations (Environment and Climate Change Canada, Provincial and Territorial), academic researchers and local

communities to share Indigenous and local knowledge and western science perspectives about caribou. The workshops aimed to strengthen and form new relationships, highlight topics of concern, identify gaps in knowledge, and outline actions for effective caribou monitoring and management. An ethical and inclusive space was created that encouraged two-way knowledge sharing and discussion. This was achieved by ensuring everyone was at the table with appropriate resources to enable participation by all groups and equal status in the co-development of this project.

*Living on the Edge, communities at the centre of Lac de Mâl conservation*

The Lac de Mâl is a permanent lake in a dry area, 65 km south-east of the city of Aleg in Mauritania. It covers about 5,250 ha at the end of the rains, shrinking to 870 ha at the end of the dry season. It is an important site for water birds with at least 35,000 birds congregating in the lake annually. As the only permanent wetland in the region, it is also a key resource for the local people; some 9,000 people live around the lake. In spite of its importance, the area has no official protection status. The main activities around the lake are agriculture, small-scale fishing and cattle breeding. Nature Mauritanie, the BirdLife partner in Mauritania, supported the communities through the European-Union-funded Living on the Edge project. The communities came together and signed a charter with guidelines on the use of the natural resources of the lake by the stakeholders (fishermen, farmers, and livestock breeders). In the past, fuelwood-cutting and overgrazing have reduced the area of woodland around the lake and the cover of herbaceous vegetation, exposing the soil to erosion. The dwindling amount of vegetation cover on surrounding dunes has increased the risk of the dunes shifting and filling in the lake. The current project's activities are centred on tree planting to stabilise the dunes around the lake and the rehabilitation of the dam. Together with the local communities, it developed alternatives and sustainable activities (gardening, solar fish smoking, poultry). The waterbird population has increased and the livelihood of local communities improved (cooperative, income-generating activities). The model of collaboration was the model for the development and management plan of Mâl Commune by the local authorities.

## References

- Adams, W. and Mulligan, M. 2002. *Decolonizing Nature. Strategies for Conservation in a Post-colonial Era* (London: Taylor and Francis), <https://www.taylorfrancis.com/books/mono/10.4324/9781849770927/decolonizing-nature-william-bill-adams-martin-mulligan>.
- Arnstein, S.R. 1969. A ladder of citizen participation. *Journal of the American Institute of Planners* 35: 216–24, <https://doi.org/10.1080/01944366908977225>.
- Bell, K. and Reed, M. 2021. The tree of participation: A new model for inclusive decision-making. *Community Development Journal* bsab018, <https://doi.org/10.1093/cdj/bsab018>.
- Bellis, K.X.T., Peet, R.T., Irvine, R.L., et al. 2019. Beyond biodiversity: The cultural context of invasive species initiatives in Gwaii Haanas. In: *Island Invasives: Scaling Up to Meet the*

- Challenge*, ed. by C.R. Veitch, et al. (Occasional Paper SSC No. 62. Gland, Switzerland: IUCN), pp. 494–96, <https://doi.org/10.2305/IUCN.CH.2019.SSC-OP.62.en>.
- Borras, S.M., Jr, Hall, R., Scoones, I., et al. 2011. Towards a better understanding of global land grabbing: an editorial introduction. *Journal of Peasant Studies* 38: 209–16, <https://doi.org/10.1080/03066150.2011.559005>.
- Carr, B., Fitzsimons, J., Holland, N., et al. 2017. CAPitalising on conservation knowledge: Using Conservation Action Planning, Healthy Country Planning and the Open Standards in Australia. *Ecological Management and Restoration* 18: 176–189, <https://doi.org/10.1111/emr.12267>.
- Council of the Haida Nation and the Government of Canada. 2018. *Gwaii Haanas Gina“Waadluxan KilGuhlGa Land-Sea-People Management Plan: 2018* (Gatineau, Quebec: Parks Canada), <https://www.pc.gc.ca/en/pn-np/bc/gwaiihaanas/info/consultations/gestion-management-2018>.
- Environment and Climate Change Canada. 2022. *Species at Risk Act: Annual Report to Parliament for 2020* (Gatineau, QC: Environment and Climate Change Canada), [https://wildlife-species.canada.ca/species-risk-registry/virtual\\_sara/files/reports/Sar-2020-v02-eng.pdf](https://wildlife-species.canada.ca/species-risk-registry/virtual_sara/files/reports/Sar-2020-v02-eng.pdf).
- Ermine, W. 2007. The ethical space of engagement. *Indigenous Law Journal* 6: 193–234, <https://ilj.law.utoronto.ca/sites/ilj.law.utoronto.ca/files/media/ilj-6.1-ermine.pdf>.
- Frei, F.X. and Morriss, A. 2020. Begin with trust. *Harvard Business Review* 98: 112–21, <https://hbr.org/2020/05/begin-with-trust>.
- Hou-Jones, X, Bass, S. and Roe, D. 2021. *Mainstreaming Biodiversity in Government Decision-Making* (Cambridge: UNEP-WCMC), <https://pubs.iied.org/20426g>.
- Hunt, J. 2013. *Engaging with Indigenous Australia – Exploring the Conditions for Effective Relationships with Aboriginal and Torres Strait Islander Communities*, Issue Paper No. 5, Produced for the Closing the Gap Clearinghouse (Canberra: Australian Institute of Health and Welfare; Melbourne: Australian Institute of Family Studies), <https://www.aihw.gov.au/getmedia/7d54eac8-4c95-4de1-91bb-0d6b1cf348e2/ctgc-ip05.pdf.aspx?inline=true>.
- Hurley, P., Lyon, J., Hall, J., et al. 2022. Co-designing the environmental land management scheme in England: The why, who and how of engaging ‘harder to reach’ stakeholders. *People and Nature* 4: 744–57, <https://doi.org/10.1002/pan3.10313>.
- Inuit Tapiriit Kanatami. 2018. *National Inuit Strategy on Research* (Ottawa, Ontario, Canada: Inuit Tapiriit Kanatami), [https://www.itk.ca/wp-content/uploads/2018/04/ITK\\_NISR-Report\\_English\\_low\\_res.pdf](https://www.itk.ca/wp-content/uploads/2018/04/ITK_NISR-Report_English_low_res.pdf).
- Lachapelle, P.R. and McCool, S.F. 2012. The role of trust in community wildland fire protection planning. *Society and Natural Resources* 25: 321–35, <https://doi.org/10.1080/08941920.2011.569855>.
- Lee, L.C., McNeill, G.D., Ridings, P., et al. 2021. Chiixuu Tll iinasdll: Indigenous ethics and values lead to ecological restoration for people and place in Gwaii Haanas. *Ecological Restoration* 39: 45–51, <https://doi.org/10.3368/er.39.1-2.45>.
- Madden, F. and McQuinn, B. 2014. Conservation’s blind spot: The case for conflict transformation in wildlife conservation. *Biological Conservation* 178: 97–106, <https://doi.org/10.1016/j.biocon.2014.07.015>.
- National Coalition for Dialogue and Deliberation. 2010. *Resource Guide on Public Engagement*, <https://www.ncdd.org/rc.html> DOI:10.1017/S0030605317001296.



- Pascoe, B. and Gammage, B. 2021. *Country: Future Fire, Future Farming* (Melbourne: Thames and Hudson Australia Pty Ltd).
- Reid, A.J., Eckert, L.E., Lane, J., et al. 2020. 'Two-eyed seeing': An Indigenous framework to transform fisheries research and management. *Fish and Fisheries* 22: 243–61, <https://doi.org/10.1111/faf.12516>.
- Sandlos, J. 2005. Federal spaces, local conflicts: National Parks and the exclusionary politics of the conservation movement in Ontario, 1900–1935. *Journal of the Canadian Historical Association* 16: 293–318, <https://doi.org/10.7202/015735ar>.
- Schuster, R., Germain, R.R., Bennett, J.R., et al. 2019. Vertebrate biodiversity on Indigenous-managed lands in Australia, Brazil, and Canada equals that in protected areas. *Environmental Science and Policy* 101: 1–6, <https://doi.org/10.1016/j.envsci.2019.07.002>.
- Sutherland, W.J., Shackleford, G., Rose, D.C. 2017. Collaborating with communities: Co-production or co-assessment? *Oryx* 51: 569–70, <https://doi.org/10.1017/S0030605317001296>.
- United Nations. 2009. *The State of the World's Indigenous Peoples*, ST/ESA/328 (New York: United Nations Department of Economic and Social Affairs, Secretariat of the Permanent Forum on Indigenous Issues), [https://www.un.org/esa/socdev/unpfii/documents/SOWIP/en/SOWIP\\_web.pdf](https://www.un.org/esa/socdev/unpfii/documents/SOWIP/en/SOWIP_web.pdf)
- White, T.B., Petrovan, S.O., Christie, A.P., et al. 2022. What is the price of conservation? A review of the status quo and recommendations for improving cost reporting. *BioScience* 72: 461–71, <https://doi.org/10.1093/biosci/biac007>.
- Wong, C., Ballegooyen, K., Ignace, L. et al. 2020. Towards reconciliation: 10 Calls to Action to natural scientists working in Canada. *FACETS*. 5: 769–783. <https://doi.org/10.1139/facets-2020-0005>.
- Young, J.C., Searle, K., Butler, A., et al. 2016. The role of trust in the resolution of conservation conflicts. *Biological Conservation* 195: 196–202, <https://doi.org/10.1016/j.biocon.2015.12.030>.