

Technocultural Data Protocols

Safeguarding Local Community
and Indigenous Peoples'
Rights to Data Sovereignty

March 2024

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Introduction

This report provides a starting point for how organizations can begin the process of developing a set of technocultural data protocols for safeguarding local communities' and Indigenous Peoples' rights to data sovereignty. Local communities and Indigenous Peoples are quite heterogeneous with different histories and concerns, and several have begun to develop distinct Indigenous Data Sovereignty principles and Indigenous Data Governance protocols for how to protect and promote their data, knowledge, lands, and cultural heritage (See Appendix A). In response, organizations must establish their own internal guidelines (e.g., technocultural data protocols) for how to align their policies and practices to ensure they are acting responsibly to safeguard the data of local communities and Indigenous Peoples whom they collaboratively work with. Technocultural data protocols, in other words, are policies and guidelines created by organizations to ensure that they are adhering to the Indigenous Data Governance requirements that Indigenous Peoples and local communities have established for themselves and those who handle their data.

Technocultural Data Protocols are developed internally by an organization after undertaking an extensive consultation and discussion process to determine its core values and priorities for safeguarding local communities' and Indigenous Peoples' rights to data sovereignty. They set out the procedures and guidelines

for how an organization must engage with and safeguard data produced by, for, and about local communities and Indigenous Peoples in accordance with the specific rights and responsibilities set forth by such local communities and Indigenous Peoples. They assume that data is not mere facts but sets of information that are simultaneously shaped by both digital technologies and the cultural understandings of particular groups (e.g., technocultural).

This report arose out of a collaborative research project to address the need for organizations to develop such guidelines for how to safeguard local communities' and Indigenous Peoples' data. The research was a collaborative project between Internationella Insamlingsstiftelsen för Mark och Skogsrättigheter, hereafter referred to as "Tenure Facility", and consultants Foster and Schonwetter. The Tenure Facility is a nongovernmental organization based in Sweden, which focuses on securing land and forest rights for Indigenous Peoples and local communities across eighteen different countries on the continents of Africa, North America, South America, and Asia. Professors Laura Foster (Indiana University Bloomington, U.S.A.) and Tobias Schonwetter (University of Cape Town, South Africa) have over twenty years of experience and expertise working on questions related to Indigenous Peoples' knowledge, access, and benefit sharing, and/or intellectual property law.

Research Project Background

The research project asked how a diverse set of individuals and groups working to support land tenure claims by local communities and Indigenous Peoples articulated opportunities, concerns, and tensions related to data sharing, data governance, data sovereignty, and intellectual property in similar and diverse ways. In addition to qualitative interviews, the project also included a distinct doctrinal research component, which involved the analysis of existing legal and regulatory frameworks as well as numerous agreements and policies applicable to TF, the goal of the project was to interview relevant stakeholders virtually and then bring them together for a set of dialogues to establish a process towards developing a set of technocultural data protocols.

A key assumption of the research is that Indigenous Peoples have distinct collective rights that differ from many other local communities,

and that technocultural data protocols must be developed to address such distinctions. Indigenous Peoples have the right to self-determination and various rights under the United Nations Declaration of Indigenous Peoples (UNDRIP) and the International Labor Organization Indigenous and Tribal Peoples Convention (ILO 169), and the right to free prior and informed consent.

The project began in August of 2021 and was completed in December 2023. The process of engaging in collaborative research between a nongovernmental organization and academic researchers produced its own findings for best practices on how to work together. As will be discussed, the process revealed a complex set of laws and policies at the federal, state, and institutional level regarding universities in the United States that must be addressed prior to and when engaging in a collaborative research project with academics at a public research university. The research timeline was thus as follows:

RESEARCH TIMELINE

Aug 2021	Laura Foster (IUB), Tobias Schonwetter (UCT) and Cath Traynor (TF) begin process of collaboratively drafting a research proposal.
Dec 2021	Laura Foster initiates research proposal and research contract approval from Indiana University Office of General Counsel and the College of Arts and Sciences.
Jan 2022	Research proposal submitted to TF
March 2022	TF Executive Director and Chief Programme Office approve Technocultural Data Protocols.
April 2022	Laura Foster submits research proposal for review by Indiana University's human subjects research Institutional Review Board (IRB).
May 2022	Laura Foster secures approval from Indiana University for research proposal and research contract.
May 2022	Laura Foster and Tobias Schonwetter sign research contracts.
June 2022	Indiana University IRB approves research study protocol.
Aug 2022	Recruitment of research participants begins.
July 2023	Coding and preliminary data analysis begins.
Sept 2023	Recruitment and interviews completed.
Sept 2023	Intellectual Property Knowledge Sharing Workshop with Tenure Faculty
Sept 2023	Indigenous Data Sovereignty Knowledge Sharing Workshop with Tenure Faculty
Oct 2023	Coding and preliminary data analysis completed.
Oct 2023	Technocultural Data Protocols Workshop Dialogues (Oct 26-27)
Nov 2023	Tenure Faculty establishes and internal Indigenous Data Sovereignty Task Force.
Dec 2023	Final data analysis complete.
Dec 2023	Draft report submitted to Tenure Faculty

Participants included key officials at The Tenure Facility and other professionals with relevant Indigenous communities, Indigenous-led networks, nongovernmental organizations, community federations, funding agencies, government agencies, academic organizations, and consulting groups with related interests and expertise regarding land and forest rights, data governance, data sovereignty, and/or intellectual property rights. The names of individuals and groups remain anonymous here and confidential per the human subject research protocol.

The goals of the research project were to enable participants to: (1) develop an awareness of and distinguish between key concepts related to Indigenous Data Sovereignty, Indigenous Data Governance, and Intellectual Property protection; (2) develop a shared understanding of their different conceptions, concerns, and opportunities related to data and practices of data sharing and/or withholding; (2) generate suggestions for what changes are needed to current data sharing policies and practices; and (3) strengthen their shared values and commitment to working together to safeguard local communities' and Indigenous Peoples' data, while supporting claims to land and the protection of forests.

As a project sponsored and funded by Tenure Facility, a private nongovernmental organization, we as academics signed research contracts with TF, which means we were first required to obtain approval from our universities to do this work. Laura Foster, for example, was required to meet several times with Indiana University's general counsel who reviewed the research contract and raised concerns about a conflict of interest in violation of Indiana state law, and then she had several meetings with the research integrity office to ensure that receipt of funds from Tenure Facility would not unduly influence the objectivity of the research findings. Once the conflict-of-interest concerns were settled, Foster then had to obtain permission from the Chair of her department to engage in a consultative research project, which was considered outside the scope of her

employment contract with Indiana University. The next step was to obtain approval from the Dean of the College of Arts and Sciences who eventually agreed, under the condition that Foster could only devote approximately one day a week on the project so as not to interfere with her obligations to the university per IU policy against conflicts of commitment.

With the research contract approved, Foster began obtaining human subjects research approval through Indiana University Bloomington. Under US federal law, researchers must design their research protocols to meet strict requirements of protecting the privacy and confidentiality of those they interview. This meant submitting and getting approval of all recruitment communication and informed consent documents. Given that the project involved participants across the EU and ten different countries, Foster was required to conduct legal



research on all the human subjects research guidelines in each country and certify that our research consent protocols did not violate any country laws. As our research involved citizens of EU countries and potential sensitive data related to race, ethnicity, and political opinion, Foster was also required to meet with IU general counsel several times to develop consent forms to satisfy requirements under the GDPR.

In the end, to ensure the research design and protocols met the highest standards of privacy and confidentiality it took six months of approval processes with Indiana University and its various departments. We mention this here because it seems to parallel many of the concerns we heard from participants in our research – that designing projects and protocols that ensure the standards of free, prior informed consent takes considerable time even before a project begins. We also heard from research participants about the challenges of adhering to different legal regimes in different countries when it comes to community mapping, just like we had to meet state, federal, and EU law in doing this project.

As we finally embarked on our empirical research component, through conversations with Tenure Facility, we identified 33 key stakeholders with expertise and knowledge regarding issues of community mapping, intellectual property, and/or data sharing. We then began recruitment of participants via email. While we agree that recruitment communication via social media, WhatsApp, or even Slack might have been more efficient and indeed faster, unfortunately those platforms are not secure enough and risk violating the confidentiality of our participants, so we were required to use an IU email account service that was monitored by Indiana University to ensure data security and prevent data breaches. Again, we find parallels here with concerns raised by our research participants regarding efforts at community mapping in an increasingly digital world. As organizations shift from paper maps to digital maps and databases, the imperative to build and use safe and secure platforms to protect the privacy of local communities and Indigenous Peoples data has become paramount.

In terms of recruitment, we reached out to 42 different individuals, which comprised of the

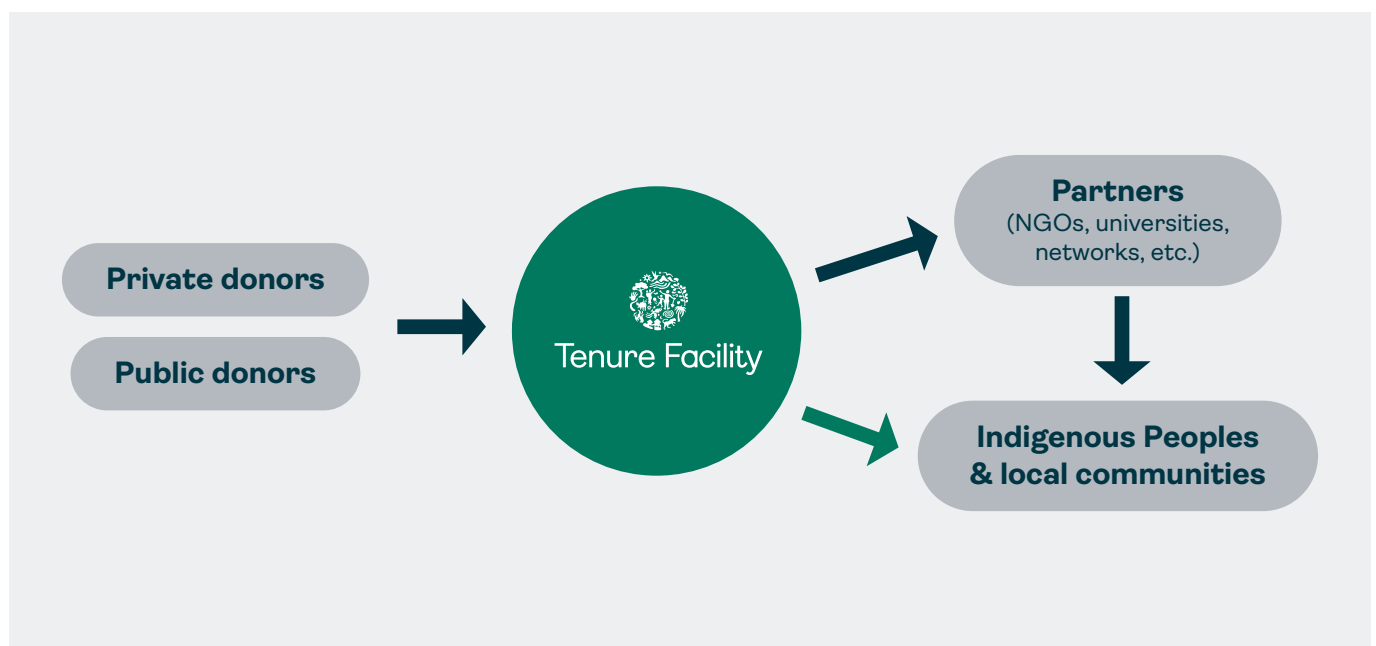


33 individuals suggested by Tenure Facility and 9 individuals recommended by those we interviewed. We sent approximately 100 initial and follow-up emails to eventually complete 13 interviews via zoom. In the research world, a 32% return rate could be higher, but is still within the range of a standard rate of return for qualitative interview-based (versus survey) research. We also drew insights from the 18 participants who attended the workshop dialogues in Sweden, which included 14 representatives from Tenure Facility, 2 from relevant nongovernmental organizations, and 2 from Indigenous Peoples' networks (as listed in acknowledgements). While this research process differs from community mapping projects, the recruitment process took considerable time and follow-up, which further demonstrates the need to support community partners and Indigenous Peoples' seeking to enroll participants and ensure free, prior, and informed consent in their own efforts at community mapping.

In our research interviews, we focused mostly on these three questions: (1) What are your concerns related to data governance and data sharing; (2) How do you understand these concerns differently than other organizations; and (3) What are the implications of these concerns for Indigenous Peoples and local com-

munities? To determine the key themes in our research, we transcribed the zoom interviews through Microsoft transcription software, and then coded and analyzed all thirteen interviews using MAXQDA qualitative data software. We will discuss our research findings below.

For the doctrinal research component of this project, we considered key laws and policies at various levels to acknowledge the legal context within which TF operates. This analysis was limited, however, to central policies at issue to provide a starting point for developing understanding across participants. More specifically, in addition to generally applicable laws and policies in this space, we focused on TF-specific docs such as Donor Agreements, TF-Partner Grant Agreements, Templates and related documents, e.g., TF Policies, Standards and Guidelines. These documents were identified in consultation with TF. Particular emphasis here was on the provisions in the current TF-Partner Template Grant Agreement dealing with data/knowledge ownership, governance and sharing. The TF-specific documents we analysed are used to govern the various relationships between TF and its private and public donors on the one hand and TF and its partners and indigenous communities on the other (see graphic below).

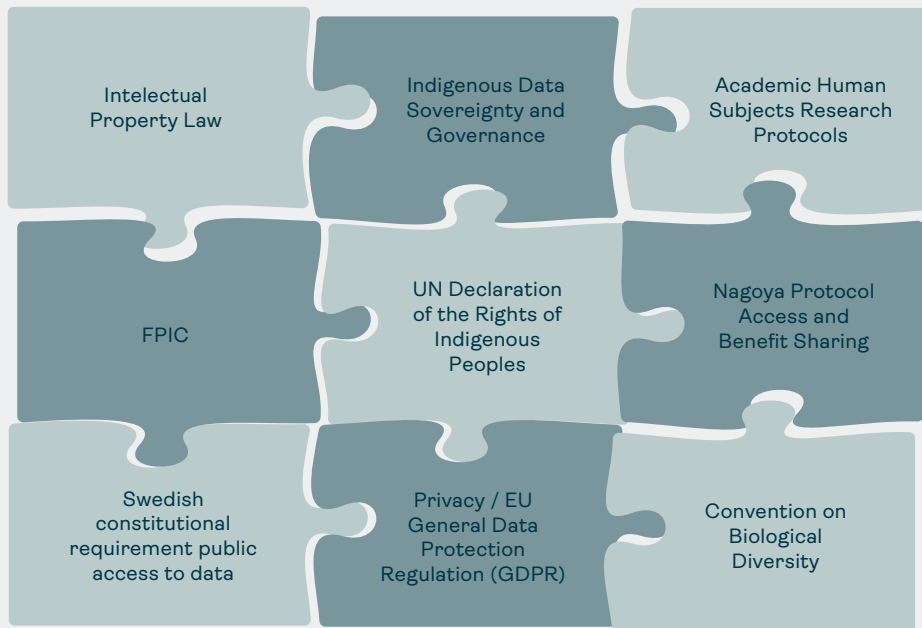


Global Regulatory Ecosystem

When it comes to the protection of Indigenous Peoples' knowledge and data, there is first and foremost the rights and principles of Indigenous Data Sovereignty that are emerging by, within, and for Indigenous Peoples' themselves. These rights are paramount because Western legal and regulatory regimes often fail to protect them, and have historically contributed to the taking/misappropriation of Indigenous Peoples' knowledge and heritage. Indigenous Data Sovereignty principles and Indigenous Data Governance protocols amount to a distinct set of rights and rules that Indigenous Peoples recognize as governing the use of data by, for, and about Indigenous Peoples, which is an entirely

The right to Indigenous Data Sovereignty is enshrined in the UN Declaration of the Rights of Indigenous Peoples. When negotiating a grant agreement with a donor, organizations must also consider questions of intellectual property law to determine who will hold copyright over images and text produced through the project, and how the copyright owner might license the use of the copyrighted material. When accepting funds from a government donor with a constitutional requirement to uphold public access to data like in Sweden, then an organization must determine how to address donor demands for data to be open to the public. When processing sensitive personal data that reveals racial or ethnic origin or political opinions, organizations must then develop higher level protocols for the privacy protection of that data under the EU

A regulatory Ecosystem Snapshot



distinct legal system outside of Western legal norms. A key finding of our research was also the extent to which rights of Indigenous Data Sovereignty also exist within a global regulatory ecosystem for the protection of data.

General Data Protection Regulation and, in the case of Sweden, the Swedish Data Protection Act (which contains complementary provisions to the GDPR). Still further, if an organization is dedicated to the conservation of biological diversity, it must also consider its commitments

to the Convention on Biological Diversity and support Indigenous Peoples and local communities who are demanding access to genetic resources and the fair and equitable sharing of the benefits under the Nagoya Protocol. When working with academic researchers, organizations must also consider how researchers are protecting the privacy and confidentiality of what is characterized as human subjects research data by their university research ethics and review boards. This is the regulatory ecosystem that organizations are operating within and navigate as they engage in efforts to safeguard local communities and Indigenous Peoples' data.

Key Research Findings

Concerns Related to Funding and Donor Expectations



"I think communities now are very protective and rightfully so about what it is they want to share."

"If you cannot share the data, how can you report to the donor that you use the money for that collection for example..."

"And in particular the bilaterals, because they're in it for the long haul and they have a broader scope of knowledge and political influence that private donations can never match."

"A lot of donors' clauses that all knowledge products become property of the donors."

When asked what some of their main concerns related to data governance and data sharing were, we found that several participants located their concerns within discussions related to funding and donor expectations. These included the following:

1. Concerns referred to as "Intellectual Property Concerns"
2. Shifting Expectations of Bilateral and Private Donors
3. Donor Funding Agreements.

While many organizations in this space continue to rely on bilateral (public) donor funding, there has been a shift towards more funding relationships with private donors. This means that organizations are increasingly navigating a diverse set of expectations from a range of donors. Participants discussed how bilateral government agencies are often governed by their own countries' laws such as the Swedish Constitution and the Swedish Public Access to Information and Secrecy Act that espouse priorities of transparency and openness. Bilateral donors also fund a tremendous number of projects, so their expectations and requirements are more standardized and rigid, and might also require sub-grantee agreements with similar provisions. Their donor agreements, for example, often contain similar requirements that are not always open to negotiation. This includes provisions regarding intellectual property rights, non-exclusive licenses to use project materials, requirements for grantees to publicize project results, and dispute resolution provisions. In contrast, private funding agencies tend to be more flexible. They are, for instance, more responsive to requests not to share community mapping data, and are more willing to change their contract / agreement provisions accordingly.

What we learned in our research is that organizations like the Tenure Facility are increasingly faced with having to navigate complex, diverse and changing funding landscapes. On one hand, private funding may be less restrictive, but it is more likely to be limited to a one-time infusion of financial support, connected to certain high net worth individuals, and less accountable to be transparent about its own processes. On the other hand, bilateral / public funding agencies are more likely to operate based upon a strategic decision to fund development for the long-term. This enables them to develop their own set of expertise and engender best practic-

es in the area, thus they can assert a stronger political influence for social change.

As organizations are adapting to this changing and diverse funding landscape, they are developing strategies for ways forward. Organizations find it difficult to negotiate with bilateral / public donors to change the language of donor agreements, but one organization we spoke to has developed a practice of writing a letter back to donor agencies that clearly states how they interpret certain provisions in ways that protect community mapping data. Albeit limited, that is one way if how organizations are providing valuable feedback to donors. Another strategy is from work that we have done in the past to negotiate [community research contracts](#) between universities and Indigenous partners. In our learnings from negotiating those contracts, we learned that agreements between lawyers, researchers, and Indigenous Peoples can become too legal and the principles of Indigenous Data Sovereignty become obscured.

Participants also noted a shift that is occurring across both private and bilateral / public funding, which is a preference for granting funds directly to local communities and Indigenous Peoples rather than intermediary organizations such as Tenure Facility. This move from donors comes out of a strategic vision to channel development funds directly to communities, and be more responsive to Indigenous Peoples' rights to data sovereignty. This is a challenge, but also an opportunity for organizations such as Tenure Facility to continue to demonstrate their strategic value, for example, their strong relationships with community partners, their expertise from collaborating across multiple countries and communities, and their economies of scale that

drive their innovative work and strengthen them as organizations to fund.

Concerns Related to Community Mapping and Sharing of Data



“Data sovereignty would be self-determination...it’s being able to determine what data is mine and not mine.”

“Even though a tree outside their home, which belongs to the whole community, you could say that tree is not personal data under GDPR. But when you think about it, if that tree could be exploited and 100 more trees there and it basically has a risk to their lives, livelihoods that presents a risk to their rights and freedoms. OK, so the challenge I’m having also is like, OK, you know, where do we say, where do we draw the line on what is personal data and what is not personal data? What data could present a risk to their rights and freedoms?”

“So there’s like questions of long-term storage that I’m really interested in. Where does this data reside ten years from now? Fifty, one hundred. You know who has control over that, who has stewardship? And these are the kind of questions that I think we’re just starting to tackle.

The second area of focus in our research was on concerns related to community mapping and the sharing of data. Participants articulated a range of concerns that coalesced across the following themes:

- a. Indigenous Data Sharing Protocols and Governance
- b. GDPR Privacy Laws
- c. Digital Databases and Storage

To expand more here, participants expressed that data sharing and governance protocols must be “situated” to needs of the community, and the particular project. There are some communities who are more open to sharing their data, whereas others are more hesitant. There are some communities who implement free, prior informed consent (FPIC)

protocols within their own communities, and others who have different interpretations of FPIC when it comes to internal community discussions. In other words, communities differ, and so do projects.

A variety of factors matter in this context. For instance, approaches and attitudes depend on **who collects the data**. If communities are fully engaged in the community mapping process and collecting their own data, they may be more open to share data given their control over the process. It also depends on **what the data is**. We learned that communities are more likely to share boundary data, but withhold information about sacred sites and resources within their territories. It also depends on **who the data is shared with**. Participants mentioned that communities tend to be willing to share community mapping data (1) more for their own internal purposes, (2) in narrow, specific ways with governments to ensure their land tenure claims, and (3) even less so with donor organizations. One participant expressed concern that if local and Indigenous communities were too restrictive about sharing data, it might drive community partners and donors away from working with them. At the same time, participants expressed the need for organizations themselves to develop their own data sharing protocols to demonstrate their commitment to protecting Indigenous Peoples' and local communities' data. A central question was raised regarding how organizations such as Tenure Facility can develop data safeguarding protocols that move projects forward while being responsive to different community interests.

A surprising finding in our research were concerns regarding the overlap between the EU's GDPR and Indigenous Data Sovereignty Protocols. Organizations such as Tenure Facility are adjusting their policies to meet data privacy protection obligations under the GDPR, while also adhering to the data sharing protocols of specific communities. If organizations are building processes and protocols to protect data subjects located in EU countries in order to comply with the EU's GDPR, then what is the

relationship between rights of data subjects under the GDPR and the rights of Indigenous Peoples under principles of Indigenous Data Sovereignty?

Finally, another significant finding related to concerns over community mapping in a digital world. With the shift from paper maps to digital maps, there is a new, yet familiar, set of concerns. Participants in our research articulated concerns about how community mapping data is being digitized, how online digital maps are being used, who has access to the data, and what data sharing and consent protocols are being put into place. Land tenure and community mapping projects are becoming increasingly digital within a world of big data and artificial intelligence, thus the need to address the implications of these technological changes.

Understandings of Indigenous Data Sovereignty and Governance

A third area of focus in our research was on understandings of Indigenous Data Sovereignty and Indigenous Data Governance. While all the participants in the project worked with Indigenous Peoples and related community partners, they articulated various degrees of familiarity with these concepts, and they expressed a desire to understand them better. We found that participants often conflated conceptions of sovereignty and governance, rather than understanding their distinctions and overlaps. There was also a tendency for participants to subsume these concepts under rights to free prior and informed consent (FPIC) without fully understanding how FPIC is just one facet of the overall frameworks of Indigenous Data Sovereignty and Indigenous Data Governance. Thus, a key finding of our research was the need to ensure that organizations develop a shared understanding of these concepts across all levels of their staff to ensure the safeguarding of Indigenous Peoples' and local communities' data.

In response to these findings, we developed and led an Indigenous Data Sovereignty Knowledge Sharing Workshop with Tenure

Facility in September of 2023 over zoom that provided some foundational understandings prior to the face-to-face Technocultural Data Protocols Workshop Dialogues in October 2023 in Stockholm. We share some of the key insights from those workshops here in this section of the report.

As organizations develop their own set of technocultural data protocols for safeguarding local communities' and Indigenous Peoples' data, they must find ways to adhere to principles of Indigenous Data Sovereignty and Indigenous Data Governance. These principles are developed by and for Indigenous Peoples', thus they may not be applicable for safeguarding the data of local communities who do not identify as Indigenous Peoples. At the same time, however, they offer guidance for how organizations may safeguard both local communities and Indigenous Peoples' data.

Indigenous Data Sovereignty is a framework of rights by and for Indigenous Peoples. It serves to counter histories of colonialism and its ongoing settler colonial practices that have historically contributed to the extraction and appropriation of their knowledge and heritage. It also seeks to challenge western regimes of intellectual property and data protection that have contributed to the taking, misappropriation and devaluing of Indigenous Peoples' knowledge and heritage. It is thus an iterative set of principles that varies across different nations of Indigenous Peoples. An Indigenous Knowledges and Data Governance Protocol derived from First Nations, Inuit, and Metis communities across Canada describes their protocol as "a living being that was brought to life and named through ceremony, and that will evolve as we learn and grow."¹ Indigenous Data Sovereignty principles are thus much like a winding forest path that guides the way as it changes over time.

In contrast to the western concept of intellectual property as discussed in more detail below, Indigenous Data Sovereignty principles are based on values of relationality and interconnections of peoples, lands, and more-than-

human worlds. While intellectual property can be understood as the governing and control of human knowledge production, Indigenous Data Sovereignty principles shift the control of knowledge production and data to the rights of Indigenous Peoples, and they are based upon an entirely different vision of knowledge production – one that is relational, that is community based, and that flows out of a simultaneity of past, present, and future.

At the heart of Indigenous Data Sovereignty is a conception of Indigenous Data, which has been defined in multiple ways:



“For the purpose of this Protocol, Indigenous data is any information that is from or about any Indigenous person or their community, territory or nation, including but not limited to their languages, Knowledges, customs or traditions, intellectual property and ideas. Indigenous data are also relational and reciprocal, and need to reflect and be held by the community as a collective, and are equally as important to pass down through generations as a part of lifelong journeys of coming to be.”

— Indigenous Innovation Initiative, 2021

“Indigenous Peoples' data include data generated by Indigenous Peoples as well as by governments and other institutions on and about Indigenous Peoples and territories, as well as information about Indigenous communities and the individuals, Indigenous and non-Indigenous, that live within.”

— (Carroll, S. et al., 2020).

These understandings of data differ from normative western ideas of data as merely a collection of information such as facts, observations, expressions, and measurements that are recorded and pulled together for analysis

or calculation. Indigenous data is relational and reciprocal. These definitions also stress that Indigenous data is “from or about” Indigenous Peoples and is held by Indigenous Peoples as a collective.

There are also different definitions of Indigenous Data Sovereignty, but they all share similar attributes. Two helpful definitions are by Tahu Kukutai and John Taylor in their 2016 book on “Indigenous Data Sovereignty: Towards an Agenda” and by the Maiam nayri Wingara Indigenous Data Sovereignty Collective working across the many homelands of Aboriginal and Torres Strait Islander peoples. They explain that it is:



“the right of Indigenous Peoples to determine the means of collection, access, analysis, interpretation, management, dissemination and reuse of data pertaining to Indigenous people from whom it has been derived, or to whom it relates.”

—Kukutai and Taylor 2016.

“Indigenous Data Sovereignty’ refers to the right of Indigenous Peoples to exercise ownership over Indigenous Data.”

— Maiam nayri Wingara Indigenous Data Sovereignty Collective, 2018.

As these definitions make apparent, Indigenous Data Sovereignty is the right to self-determination over Indigenous data, which means it is the right for Indigenous Peoples to exercise ownership and control over data by, for, and about them. It is a set of rights that is supported by the 2007 United Nations Declaration on the Rights of Indigenous Peoples.

Within this framework of rights, is the notion of Indigenous Data Governance. This refers

more to the processes, practices, standards, and policies that enable Indigenous Peoples, as collectives and sometimes as individuals, to assert their sovereign rights of self-determination to control their data.

There are also several helpful definitions of Indigenous Data Governance that groups have articulated, including:



“Indigenous data governance includes both the stewardship and the processes necessary to implement Indigenous control over Indigenous data...The development of conceptual frameworks to inform processes for stewardship and control of Indigenous data.”

— The CARE Principles for Indigenous Data Governance, 2020.

“Indigenous Data Governance’ refers to the right of Indigenous Peoples to autonomously decide what, how and why Indigenous Data are collected, accessed and used. It ensures that data on or about Indigenous Peoples reflects our priorities, values, cultures, worldviews and diversity.”

— Maiam nayri Wingara Indigenous Data Sovereignty Collective, 2018.

“The governance is about the management - who gets to determine, who gets to control, who has the capacity to ensure that the decisions that get made in relation to the governing of information and knowledge....are held and controlled by Indigenous populations.”

— Lowitja Institute Indigenous Data Governance and Sovereignty, 2021 quoting Professor Daryle Rigney, Ngarrindjeri.

These definitions articulate values of stewardship, process, autonomous decision-making, and considerations over who gets to determine frameworks of Indigenous Data Governance. It is important to remember that Indigenous Data Governance is determined by Indigenous communities themselves, it is set of protocols that they established for the governing of Indigenous data. Indigenous communities are quite distinct, and heterogenous. They can have different principles and protocols for the governing of Indigenous data, some more formally written down and agreed to, some less formal, and some in the process of being developed.

In sum, Indigenous Data Sovereignty is the right to self-determination over Indigenous data - it is the right to exercise ownership and control. Indigenous Data Governance is about the processes, practices, and the more specific rights needed to implement and assert Indigenous Peoples' data sovereignty. In terms of governance, the Global Indigenous Data Alliance also differentiates data for governance from that of governance for data. While it is important to understand the distinctions, Indigenous

Data Sovereignty and Indigenous Data Governance are interconnected and overlapping in their shared purpose of contributing to Indigenous Peoples' efforts at self-determination.

There is a need to consider how processes of free, prior, and informed consent relate here. The right to FPIC is one of the central processes and practices of Indigenous Data Governance to assert sovereignty. This includes ensuring that community mapping projects, for example, include processes for obtaining free, prior informed consent within Indigenous and local communities.

There is an opportunity for organizations like Tenure Facility to contribute to broader discussions on how processes of FPIC relates to digital spaces, namely, the digitization and storage of Indigenous Peoples' data. This is indeed one of the key findings of our research project. As Tenure Facility increasingly partners with technology platforms for the storage of community land data, protocols for FPIC will have to continue to evolve and change. According to Stephanie Rainie et. al. (2019) "Under IDS, the



data governance rights of Indigenous nations apply regardless of where the data is held or by whom” (Rainie et. al. 2019, 301). This means that the issue of who, how, and where data is stored is a central concern that organizations must address to ensure they are safeguarding Indigenous Peoples’ data according to any relevant principles of Indigenous Data Sovereignty.

Safeguarding Indigenous Peoples’ data is integral to their efforts at self-determination. Specifically, Stephanie Carroll, Desi Rodriguez-Lonebear, and Andrew Martinez (2019) explain that Indigenous Nation Sovereignty simultaneously depends on the governing of data to rebuild better data and deploying that data for governance to contribute to the Native nation rebuilding project. Indigenous Data Sovereignty, as Smith and separately Carroll et. al. explain, is thus both about data for governance, which primarily relates to the ability for Indigenous

Peoples to access and use data themselves, and about the governance of data, meaning the ability of Indigenous Peoples to internally steward and externally influence the use of data (Smith, 2016; Carroll et al., 2019).

Strengthening the interdependence of Indigenous Data Sovereignty and Governance, different Indigenous networks and groups have developed their own sets of principles and guidelines. One example is the [CARE Principles](#), but there are also a selective list of others in Appendix A.

Understandings of Intellectual Property

It was a key driver, initially, for this project that TF’s project partners had repeatedly expressed general concerns over the years about the way in which the grant agreements between TF and their project partners address the issue of “intellectual property rights” with regards to the collection, use and application of their knowledge as well as data about them, their lands and cultures. Understanding these concerns better and responding to them appropriately was therefore an important motivation for TF to engage in this project.

From the outset, TF acknowledged requests by project partners for better protection of their rights and interests but felt, at the same time, compelled by its own agreements with ‘upstream’ donors such as Sida and Norad² as well as existing international and domestic legal frameworks to promote openness and transparency as these are seen as fundamental prerequisites for democratic accountability.

Notably, during the project (in 2022 and after much internal and external deliberation), TF revised its standard Grant Agreement and one key aim of this revision was to put greater emphasis on Free Prior and Informed Consent (FPIC) requirements and provide more clarity with regards to intellectual property and data sharing with stronger protection for IPs and LCs.



Earlier in this report, we already mentioned that there is an important conceptual difference between the western concept of intellectual property rights protection on the one hand and indigenous data governance and indigenous data sovereignty principles on the other. We summarised that Indigenous Data Sovereignty realizes the right to self-determination over Indigenous data, and that it ultimately relates to the right to exercise ownership and control. Linked to that, Indigenous Data Governance is about the processes, practices, and the more specific rights needed to implement and assert Indigenous Peoples' data sovereignty. From this we need to distinguish the distinct yet overlapping western concept of intellectual property protection. Broadly, intellectual property refers to creations of the human mind such as new inventions, literary and artistic works, designs, logos, names, symbols, plant varieties, computer programs and databases. And if the certain statutory requirements in a specific country are met, such intellectual property is protectable through intellectual property rights such as patents, copyright, trademarks, or design protection.

Such intellectual property rights, in particular copyright and (in some countries) separate database protection rights, can apply to spatial land data, maps and digital community mapping databases – and it is of course important for TF, Indigenous Peoples and local communities as well as upstream private and public donors and (downstream) partners to understand whether and how such IP protection extends to the data and maps they are dealing with, and who owns these. This is not always easy, however, because even though maps are typically protected by copyright, IP protection for databases differs significantly between countries, and the underlying data often remains



unprotected by copyright because of its factual nature (facts are usually not protected under copyright because they are not “original”). Whoever owns the intellectual property, e.g. in the maps, can ultimately control the extent to which the material is legally disseminated and shared with others.

But such exclusive control over what can broadly be labelled as knowledge material via our IP systems can have detrimental effects. Take, for example, the insufficient supply of vaccines during the recent COVID-19 pandemic in the developing world which many attribute at least to some extent to the way in which patent laws protect medicines; or the often-exorbitant prices of educational text books which may be a result of the monopoly that copyright law affords to authors and publishers. It is against this background that pro-development, progressive IP experts advocate for more balanced and open IP systems, which not only ensure adequate protection of IP rights owners but also safeguard equitable access mechanism to IP-protected materials for those who wish to

make use of them (eg, to produce affordable generic drugs for life threatening diseases). Increasingly, IP-clauses in donor agreements (sometimes resulting from domestic legal frameworks like in Sweden) seek to alleviate such problems typically associated with over-zealous IP protection by facilitating sharing of project-related data in a way that prevents exclusion and can promote collaboration, innovation, transparency and accountability, the right to access to official / public documents and information as well as the achievement of developmental objectives.

Yet, while this approach is laudable in most contexts, it needs refinement in the context of indigenous data governance and indigenous data sovereignty. Or, to put it differently, a holistic approach to indigenous data governance and indigenous data sovereignty requires that we broaden our analysis beyond the narrow field of intellectual property to devise a system that truly ensures sovereignty over knowledge resources in pursuit of Indigenous Peoples' efforts at self-determination.

This is no easy feat. But an important first step is already made when donors, TF, partners, Indigenous Peoples and local communities understand how "intellectual property" concerns form part of but by no means fully capture what Indigenous Peoples and local communities are *really* concerned about: indigenous data governance and indigenous data sovereignty principles and, linked to it, the right to self-determination over Indigenous data so that Indigenous Peoples can exercise ownership and control over data by, for, and about them. Donors in particular need to acknowledge that approaches to IP that are typically considered progressive and pro-development in other areas may be less suited in the context of indigenous data; while it is perhaps also important to explain better to Indigenous Peoples' and local communities why donors are generally promoting more open and accessible IP frameworks, and that their important data governance and data sovereignty concerns are distinct concerns that transcend the realm of IP.

It is against this background that the emphasis of our project shifted from simply discussing intellectual property in the way in which the term is understood by legal experts to a more holistic discussion of data sovereignty concerns of the key stakeholders involved. And while we still analysed the intellectual property clause in the current grant agreement – and found it to be mostly adequate and in line with best practice given the various and sometimes conflicting expectations of donors and recipients of donor funding – our work on intellectual property shifted towards explaining to donors, TF, partners and IPs and LCs what intellectual property rights really mean and entail, and how this intersects with but may also be different from their concerns about indigenous data sovereignty.

Early in 2024, a group of copyright academics (incl. one of the authors of this report), stakeholders and computational researchers gathered for a policy retreat in South Africa to discuss the related topic of how African and other Global South uses of digital research tools could be enabled without promoting "data colonialism" concerns, including wrongful uses of traditional knowledge and community-held information. The group developed the following draft principles, some of which shed further light on the issue of IP and how it relates to knowledge governance broadly and the use indigenous people's data:

1. *Knowledge governance systems are composed of governmental regulations from numerous domains including international, constitutional, traditional knowledge, intellectual property, media and telecommunications, privacy, competition, biodiversity, and other laws, and are also composed of non-governmental cultural practices and norms, including traditional systems governing the use of community-held knowledge.*

2. *Knowledge governance systems must promote the goals of sustainable development, social justice, and human rights, including the rights of everyone to produce, receive and impart information; to create, produce, participate in and benefit from culture and science; to benefit from the protection of the moral and material interests resulting from any scientific, literary or artistic production; and of Indigenous Peoples to self-determination, culture, language, and participation in decision-making processes affecting their communities.*
3. *Knowledge governance systems must provide balanced frameworks that protect and promote access to, and use of information for research, scientific inquiry, analysis, translation, and preservation of cultures and languages, including in online cross-border contexts and collaborations. Rights of researchers should extend to access and use of privately held information needed for the exercise or protection of any fundamental right.*
4. *Knowledge governance systems must promote the rights and interests of Indigenous Peoples and local communities' in the knowledge economy, including their right to self-determination, inclusion, cultural integrity, data sovereignty and sustainable development. Indigenous Peoples and local communities must be able to actively participate in innovation, wealth creation, and research, and receive equitable access to the benefits arising therefrom. Researchers have a duty to respect and promote the custodian function of traditional communities over their knowledge and innovation systems.*
5. *Knowledge governance systems must ensure sovereignty over knowledge resources to combat unidirectional information resource extraction and misappropriation that aggravates inequalities and injustice in the ability to access and use information and knowledge, including by:*
 - *preventing abuse and misuse of intellectual property rights or the resort to practices that unreasonably restrain trade, promote excessive pricing, or adversely affect the transfer of technology by rights holders;*
 - *Giving due accreditation to custodial communities for any traditional knowledge or traditional cultural expressions generated from them;*
 - *protecting against the commodification, misappropriation, enclosure, and dispossession of information by accumulation;*
 - *striving to enhance functional access to digital resources, especially in the developing and least developed countries, and not escalating the digital divide and concerns about so-called digital colonialism and other exclusionary tendencies in the global knowledge economy.*

Dialogues Workshop - Discussion and Key Findings

After completing one-on-one interviews and relevant legal/policy document review, we organized and led a workshop focused on promoting understanding of the relation between

intellectual property law with Indigenous Data Sovereignty, but more importantly on initiating a dialogue among participants on how their organizations can begin to develop their own internal sets of technocultural data protocols for safeguarding local communities and Indigenous Peoples' data.

Establishing Expectations and Importance of Workshop

The workshop began with participants articulating their expectations for the workshop, which were the following:

- *Gain clarity about intellectual property law and Indigenous Data Sovereignty principles.*
- *Understand how these issues relate to GDPR data privacy laws.*
- *Understand how these issues include practices of free, prior, and informed consent.*
- *Understand how these issues raise concerns related to gender equity.*
- *Discuss how to learn from and communicate about these issues with local communities and Indigenous Peoples' they work with.*
- *Discern how local communities and Indigenous Peoples' they work with prefer to share or not to share certain forms of data.*
- *Develop next steps for how to begin to draft internal data sharing protocols.*

In setting expectations, participants expressed concern that the workshop discussion was mostly focused on Indigenous Peoples' data and questions of Indigenous Data Sovereignty, which they noted differs from concerns by other local communities who are not considered indigenous but who nevertheless remain vulnerable given their histories of land dispossession. The discussion brought home the crucial point that Indigenous Peoples' and local communities are quite distinct and heterogenous within and across themselves. It is also a reminder that

principles of Indigenous Data Sovereignty and Indigenous Data Governance are generated by and for Indigenous Peoples' and are often specific to certain Indigenous Peoples, thus they may not resonate or apply to the concerns of diverse local communities who have distinct histories and likely have different interests related to data sharing. The participants noted that the protection of Indigenous Peoples' Data is considered a right to sovereignty as enshrined in the UN Declaration of the Rights of Indigenous Peoples, and it is important to understand the connections and dissimilarities to the needs and interests of local communities.

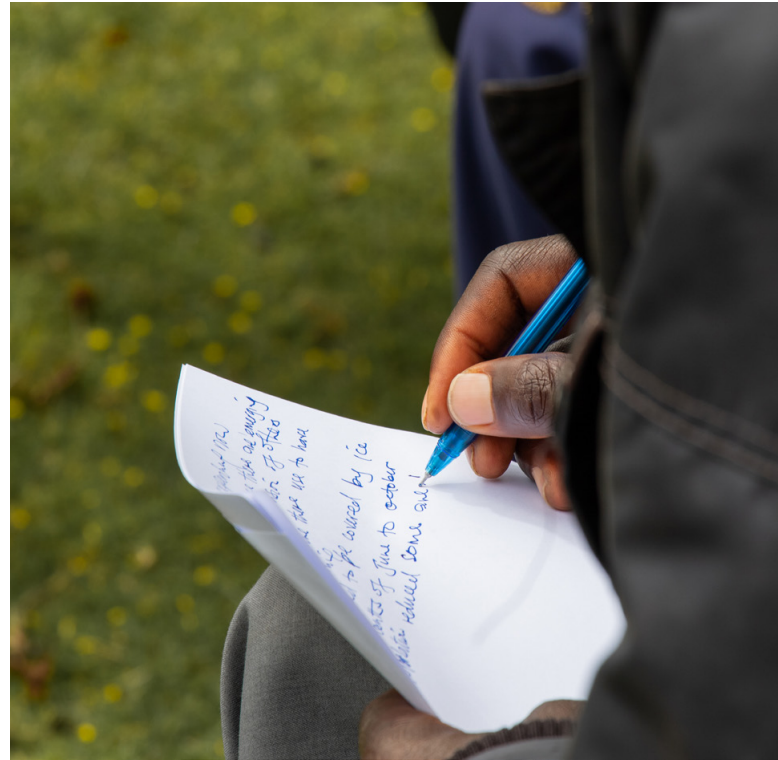
The participants also expressed the importance of the workshop itself and its focus on intellectual property and Indigenous Data Sovereignty. Tenure Facility and similar organizations that collaborate with and support Indigenous Peoples and local communities regarding their land tenure claims, for example, hold valuable spatial land data on their servers and/or digital mapping platforms. While such data are collected by or in collaboration with Indigenous Peoples and local communities that engage in community mapping processes, Tenure Facility and similar organizations nonetheless digitally store that data for use by groups in making their land claims to governments. Given the rise in digital mapping platforms and GIS spatial data technologies, the focus of the workshop is considerably timely and important to ensure that organizations understand the issues and are establishing internal technocultural protocols to safeguard the data according to the principles and practices of the distinct groups of Indigenous Peoples' and local communities they work with. This includes grappling with the tensions that arise when the positions and interests of organizations such as Tenure Facility differ and conflict with the groups they collaborate with due to constraints brought on by, for instance, donor funding agencies, accounting procedures, legal reporting requirements, and/or data privacy laws. In discussing these issues, the workshop therefore began an important opportunity for participants to learn ways to better support Indigenous Peoples, local communities,

and organizations partners they work with and to develop their own practice their own set of technocultural data protocols to safeguard local communities' and Indigenous Peoples' data.

Intellectual Property Law and Indigenous Data Sovereignty

After the participants set expectations for the workshop, Tobias Schonwetter led a discussion to facilitate understandings of relevant intellectual property provisions. Participants provoked discussion about the tensions between intellectual property and Indigenous Data Sovereignty principles, and how they represent two ways of understanding the world: Intellectual property law is directed at establishing relations of property and ownership to justify the taking of lands and resources, whereas the latter is focused on safeguarding cultural heritage to ensure the sovereignty of Indigenous Peoples. Participants expressed the need to frame a discussion of intellectual property rights through an understanding of legal pluralism, meaning there are multiple co-existing legal systems with various histories and authority. Indigenous Peoples also have their own set of laws that govern property, which differ from the normative Western assumptions of intellectual property law. Participants also articulated the importance of approaching questions of intellectual property law from the position of Indigenous Peoples and local communities first.

While there is a tendency to “balance” the needs of donors with the interests of Indigenous Peoples and local communities, participants asserted that this approach is misguided. Given historical imbalances of power between funding organizations and Indigenous Peoples and local communities, a balanced approach is always and already weighted to favor donors. Similarly, participants stressed that the focus should be on safeguarding Indigenous Peoples' and local communities' data, rather than on “balancing” between sharing or protecting data. As mentioned above, the normative assumption in society and at the government level is often that data should be open to the public



and made widely available, but adherence to norms of openness often justifies harm against Indigenous Peoples and local communities. The obligation to openly share data can enable others to appropriate and benefit from Indigenous Peoples' and local communities' knowledge and data without their awareness or consent. When their knowledge and data is made open and available, it can cause harm by revealing sacred sites or valuable medicinal plants to the public. It can also reveal information about their lands and cultural heritage that may weaken their negotiating positions, jeopardizing their claims for land tenure or access and benefit sharing agreements. There is also the issue of the way data and knowledge is made open and accessible. For example, if Indigenous Peoples' or local communities agree to share their spatial data via a shape file with a company that offers a digital community mapping database platform, then the company makes the resulting map available to them, but now the spatial data is stored in a database and software that they cannot access. Given that norms of openness can result in these harms, again the priority is to safeguard the rights of Indigenous Peoples and local communities.



As the session continued, participants gained more clarity on the distinctions between copyright and patent rights (two subsets of intellectual property) so that they could have informed discussions with donors to ensure the safeguarding of the rights of Indigenous Peoples and local communities. Participants stressed the importance of due diligence regarding the right to free, prior informed consent to ensure that Indigenous Peoples and local communities have the opportunity to secure their intellectual property rights. While practices of free, prior, informed consent require additional time and resources, participants emphasized the need to communicate responsibly with Indigenous Peoples, local communities, and donors to establish best practices of safeguarding the rights of Indigenous Peoples and local communities.

Participants also discussed specific examples of tensions between intellectual property and Indigenous Data Sovereignty. One particular area of concern was related to intellectual property rights over photographs and narrative stories that Tenure Facility may acquire from their visits with Indigenous Peoples and local communities they collaborate with. UNDRIP Article 31 states that Indigenous Peoples have

“the right to maintain, control, protect, and develop their intellectual property over such cultural heritage, traditional knowledge, and traditional cultural expressions.” Indigenous Peoples consider the creation of photographs and narrative stories by, for, and about them as their cultural expressions, thus their “intellectual property”. However, according to copyright law, the photographer is considered the creator and thus owner of the image. This (once again) differs from principles of Indigenous Data Sovereignty that contend that it is the Indigenous person in the picture who has a right to privacy and control over the use of their image and likeness, and the photographer must obtain permission from the person before taking the photo and on how to disseminate it. Likewise, the producer of a narrative story who might write down, digitally record, or film someone speaking, singing, or performing is the creator under copyright law, and thus they have the rights to determine how it is disseminated. In contrast, the principles of Indigenous Data Sovereignty hold that it is the person telling the story who is considered the creator of a story that is collectively held by their community, and thus they themselves in consultation with their communities have the right to determine how

their story should be portrayed and shared publicly.

They also expressed similar concerns regarding the recording and digital storage of spatial data related to Indigenous Peoples' lands, including rivers, trees, minerals, plants, animals, sacred sites, and boundary data. Per copyright law generally, if someone in the Indigenous community generates an original expression of the spatial data then they could claim copyright protection, but it typically does not apply to geospatial data itself because geographic locations are perceived as general facts which are not protected by copyright. If members of an Indigenous Peoples produced a paper or hard-copy map that creatively arranged the spatial data of their lands to support their land tenure claims, then they could assert copyright protection over the map as an original expression, but they could not claim ownership of the data itself under copyright law. In contrast, Indigenous Data Sovereignty principles contend that spatial data produced by, for, and on behalf Indigenous Peoples is collectively held and controlled by Indigenous Peoples.

An alternative scenario is if an Indigenous community developed their own geographical information system that arranged and compiled the spatial data of their lands into an original digital map, then they could likely obtain copyright protection. While the individual members of the community who designed and built the database would technically be considered the creators and thus owners under copyright law, they could potentially assign in writing that ownership of the database is collectively held by the Indigenous community itself. The caveat though is some countries may have particular laws that require an Indigenous community to be recognized as a registered legal entity, whereas other countries may recognize the customary law of Indigenous Peoples to designate themselves as a collective group to which rights can be assigned.

Participants raised the concern though that in practice intermediary organizations, rather than Indigenous communities, are developing



community mapping databases that creatively arrange and compile Indigenous Peoples' spatial data into a digital map, thus these intermediary organizations are entitled to copyright protection over those digital maps and, possibly, the database they derive from. This obscures the tremendous amount of labor and creativity of Indigenous Peoples who have worked collectively among themselves and with relevant organizations to collect the data for producing the digital maps. The organization that developed the database and generates the digital maps is afforded notability (and subsequent funding opportunities) rather than the Indigenous Peoples themselves.

As practices of community mapping have increasingly changed from Indigenous Peoples producing paper maps to now generating digital maps, they are relying increasingly on intermediary organizations who are in the business of designing and offering platforms for compiling large sets of digital spatial data for conducting community mapping processes needed to make land tenure claims. Despite the limitations of paper maps as more prone to loss and deteriora-

tion, Indigenous Peoples have different options to safeguard their data in a paper format given they could be considered the creators under copyright law. For instance, Indigenous Peoples who voluntarily share (or are compelled to share to assert land tenure claims) their paper maps with an organization could agree to license their copyright protected map to the organization per a Creative Commons Attribution Non-commercial No Derivatives license that would require the organization to give appropriate credit to Indigenous Peoples as the creators, not use the map for commercial purposes, and not distribute the map material in a modified form (e.g. remixed, transformed, or built upon). At the same time, a Creative Commons license assumes that the creators want to share their expressions widely and freely, thus it may not be the best option for Indigenous Peoples. Alternatively, Indigenous Peoples can set the terms of proper attribution and how they want to share their paper map with Tenure Facility and/or an intermediary organization using Traditional Knowledge Labels and/or Biocultural Labels through the [Local Contexts](#) project, or via a bespoke license.

In the case of a digital community mapping process, Indigenous Peoples are typically not considered the creators of the digital map under copyright law, rather the intermediary organization that developed the digital platform to generate the digital maps would hold the copyright. In contrast, Indigenous Data Sovereignty principles would contend that Indigenous Peoples do have the right under UNDRIP to “maintain, control, protect, and develop their intellectual property over such” cultural expression as the digital community map that they collected the data to produce. These tensions present multiple opportunities for safeguarding Indigenous Peoples’ data. Tenure Facility should consider supporting their community partners and the Indigenous Peoples and local communities they work with to establish Traditional Knowledge Labels and/or Biocultural Labels through the Local Contexts project, which would enable Indigenous Peoples and local communities to specify the conditions for engaging in decisions and for sharing or withholding their spatial data with Tenure Facility and/or the organization providing the digital community mapping platform. This assumes that local communities and



Indigenous Peoples already have an existing set of rules and protocols for how they want to use, share, and circulate their knowledge and data. Tenure Facility should therefore also find ways to support the efforts of local communities and Indigenous Peoples to develop their own internal modes of governance for how they want to share and enter relationships with outside organizations. This can include engaging with organizations such as Natural Justice (South Africa) that help guide local communities to develop [Biocultural Community Protocols](#), or connecting Indigenous Peoples with indigenous data sovereignty networks such as [Global Indigenous Data Alliance](#) (GIDA), [International Indigenous Data Sovereignty Interest Group](#), [Te Mana Raraunga – The Māori Data Sovereignty Network](#), or [Maiam nayri Wingara Indigenous Data Sovereignty Collective](#).

Additionally, participants also discussed how tensions between intellectual property law and Indigenous Data Sovereignty principles can become exacerbated when a donor organization asserts ownership or requests licensing of Indigenous Peoples' intellectual property. Although funding agencies are less likely to demand ownership rights over intellectual property produced by the organizations they fund or the Indigenous Peoples they support, alternatively some funders stipulate in their donor agreement that funding to Tenure Facility is conditional upon a license to use such intellectual property. For example, a funding agreement may state that the “donor shall have a non-exclusive, royalty free license to use all IP developed or produced by the use of the grant (e.g. project results, documents, reports) and to reproduce, store, publish, communicate, translate, and display these materials.” In other words, the donor shall have the (non-exclusive) right to reproduce and publish a report from Tenure Facility that contains narratives stories and photographs of Indigenous Peoples, or even have the right to use any Indigenous Peoples' spatial data that was collected using donor funds. While such arrangement are not uncommon in donor recipient relationships, participants expressed that there was a need for Tenure Facility to bet-

ter support community partners to ensure that spatial data, photographs, and narrative stories (written and/or digitally recorded) are produced and shared through a more appropriate process of free, prior informed consent rather than through conventional IP license arrangements. They also stressed that Tenure Facility could communicate more with donors that Indigenous Peoples retain the right to control their cultural expressions (e.g., spatial data, photographs, and narrative stories) as their intellectual property (in cases where this is currently not so), and thus they would have to agree to share those expressions with Tenure Facility and grant permission for their use by donor organizations. Tenure Facility may also want to specify clearer in their sub-grantee contracts that Indigenous Peoples retain an intellectual property right over these cultural expressions.

Indigenous data sovereignty and the sharing of data

After learning some of the tensions between intellectual property law and Indigenous Data Sovereignty, Laura Foster facilitated an activity and discussion on practices for safeguarding Indigenous Peoples' Data (See Appendix “IDS Activity”) in the session after lunch titled “Planting Seeds.” The goal of the activity was to apply learnings related to intellectual property and Indigenous Data Sovereignty to practical concerns related to the sharing of data. It was also to develop a set of questions to help drive policy changes towards balancing between data openness and protection, but based on the previous discussion the framing of the activity was changed to developing guiding questions for safeguarding Indigenous Data Sovereignty. Given that participants of the research project tended to express concern regarding the sharing of spatial data, photographs, and narrative stories, the activity focused on those particular areas. Therefore, it was explicitly designed (and revised) based upon the empirical research findings and participant feedback during the dialogues.

In terms of arranging the activity, participants were divided into small groups and were

asked to discuss one area of concern. The activity provided discussion question prompts and arranged for small groups to report back for a larger group discussion. The activity provided a list of research findings related to the sharing of data, which participants found to be particularly informative. The list reported that participants noted that local communities and Indigenous Peoples were more likely to share perimeter data of land boundaries, but less likely to share to the public (e.g., data kept for internal community information) the following:

1. *bird habitats*
2. *beetle habitats*
3. *swallow nests*
4. *natural springs*
5. *caves*
6. *waterholes*
7. *high value timber trees*
8. *fruit trees*
9. *high value minerals*
10. *spiritual and sacred sites*
11. *medicinal plants*
12. *burial grounds*

Small group discussions chose to focus their attention on concerns related to spatial data, rather than photographs and narrative stories. While this indicates the saliency of issues related to spatial data, it may also be due in part to the fact that participants discussed questions of photographs and narrative stories in the earlier session on tensions between intellectual property law and Indigenous Data Sovereignty.

As a larger group, participants discussed how increases in technology and the emergence of digital mapping platforms such as [Mapeo](#), [Cadasta](#), and [Land Mark](#) have raised both concerns and opportunities. As digital mapping software has become easier to use, nongovernmental organizations are increasingly being asked to support the development of national digital mapping platforms or add features to existing databases, while groups such as the Global Alliance of Territorial Communities have an interest in building a global

digital platform. The rise of digital participatory mapping platforms has also developed from demands on the part of Indigenous Peoples and local communities who have obtained greater security from sharing their spatial boundary data, thus putting the public on notice of their land rights. These advances also provide powerful tools for facilitating land tenure claims and mapping efforts globally, which further demonstrates the political urgency of protecting the lands and forests of Indigenous Peoples and local communities.

Participatory community mapping in a digital world

In the last session of the first day, participants continued to discuss specific practices of safeguarding Indigenous Data Sovereignty by focusing on digital database platforms. Laura Foster developed and facilitated an

activity and discussion with Tobias Schonwetter to apply learnings related to intellectual property and Indigenous Data Sovereignty to concerns regarding online digital mapping databases, and to develop a set of questions to help drive innovation in digital mapping (See Appendix “Digital Database Activity”). The participants were divided into three small groups, and one online group. They reviewed three case study websites of digital database platforms with the following questions in mind.

Case Study Groups:

<https://www.landmarkmap.org/>

<https://chepkitale.org/mapping/>

<https://www.brwa.or.id/wa>

Questions for Small Group Discussion:

1. *Who uses and what is the map being used for?*
2. *What information is being displayed? (and not displayed)?*
3. *What data sharing and confidentiality concerns come to mind?*

While participants recognized the benefits of digital mapping platforms, they focused their discussion more on increased concerns. What emerged from the research findings and the collective discussion was a set of guiding questions for better ensuring that digital mapping platforms safeguard Indigenous Peoples' and local communities' rights to data sovereignty and governance. The following questions concern who, what, and how are organizations designing and developing community mapping digital databases:

1. *Who owns the digital database platform, including its data and maps?*
2. *Where is the data being stored? Who owns the servers?*
3. *What data privacy and data management protocols does the organization have in place, and if so, how are they being enforced?*
4. *How does the organizations' data privacy and data management protocols adhere to the principles of Indigenous Data Sovereignty and Governance?*
5. *Does the digital mapping platform company have protocols and assurances in place that the data and maps of Indigenous Peoples and local communities were initially collected and also obtained by the company through processes of free, prior, and informed consent?*
6. *Are members of Indigenous Peoples and local communities, including women, being given meaningful consultation and decision-making in the initial and ongoing design, implementation, and use of the digital mapping platform on a whole and as relevant to the specific use of their data and maps?*
7. *Who are digital platforms for? Who has access to the maps?*
 - I. *General public?*
 - II. *Individuals, or specific communities?*
 - III. *Individual, or specific governments or non-governmental organizations?*
8. *How are the digital maps being used?*
 - I. *To negotiate with governments?*
 - II. *To show territorial boundaries?*
 - III. *To demonstrate project activities to donors?*
 - IV. *To support internal priorities of specific communities?*

9. *Is attribution being given Indigenous Peoples and local communities whose data and maps are being shared publicly or otherwise?*
10. *Are data and maps being made available and stored on the platform in a manner that:*
 - I. *are compatible with the narrative that Indigenous Peoples and local communities are trying to promote internally, politically, and/or legally?*
 - II. *overlays distinct types of spatial data (e.g., population data with land boundaries) that enables Indigenous Peoples and local communities political and legal efforts?*
 - III. *displays all relevant data in a comprehensive and clear manner for Indigenous Peoples and local communities to negotiate with government officials for land tenure claims?*
 - IV. *protects the data and maps of Indigenous Peoples and local communities from threats of cybersecurity?*
 - V. *mitigates potential conflicts within Indigenous Peoples and local communities that provided the data, and/or neighboring groups?*
 - VI. *mitigates the potential for outside parties to identify and appropriate high value resources held by Indigenous Peoples and local communities?*
 - VII. *prevents the display of remote sensing or other data collected by outsiders without the free, prior, and informed consent of Indigenous Peoples and local communities and/or violates their governance protocols for the sharing of their data?*
 - VIII. *is accessible to Indigenous Peoples and local communities now and in the future?*
 - IX. *distinguishes between lands formally titled and registered versus those being claimed and not yet titled?*
 - X. *distinguishes diverse types of land within one collective territory?*
 - XI. *safeguards and/or helps to prepare local communities and Indigenous Peoples for a rush of investors wanting to discuss opportunities once their claims to land have been secured?*
 - XII. *supports efforts by local communities and Indigenous Peoples to mitigate the impacts of climate change?*
11. *Does the organization and its digital platform considers issues of gender equity specific to Indigenous Peoples and local communities such as:*
 - I. *how does the allocation of land rights and ownership to women inform, encourage, and/or discourage their participation in the collecting of community mapping data?*
 - II. *how are women being included or not in decision-making at all stages of the community mapping process?*
 - III. *how are women participating and being trained to contribute to all stages of the community mapping process, including various technologies such as GIS mapping and mobile phone platforms?*
 - IV. *how does the community mapping process enable (or not) the recognition and protection of women's knowledge of their local environments, such as plants, animals, and waterways?*
 - V. *how does the display and use of their data on digital mapping platforms enable, restrict, and/or re-configure relations of gender in ways that contribute to the subordination of women and nonbinary individuals in the community?*

12. *How does the organization and its digital platform enable Indigenous Peoples and local communities to specify what data and maps they want shared and accessible to distinct groups for different purposes such as for:*
 - I. *internal community decision-making and preservation of their cultural heritage?*
 - II. *communication and/or negotiation with Indigenous networks, government officials, nongovernment organizations, donor organizations, and/or the public generally?*
 - III. *mapping the movements of animals to protect against bioprospecting and species loss, and implement restoration plans?*
 - IV. *charting the location and changing profiles of trees and plants to protect against bioprospecting and species loss, and implement restoration plans?*

Gender Considerations

As participants discussed their concerns related to digital mapping platforms, they also focused on questions of gender. There must be an effort to include women at all levels of the participatory community mapping process, including how data will be collected, shared, and displayed on digital mapping platforms. A participatory community mapping project in the Democratic Republic of the Congo, for example, decided to have a representative group of men, women, elders, and youth conduct the project to help ensure the mapping of shared knowledge, including women's knowledge. The participation of women in the process may also be informed by what rights they have to ownership of land in their communities. If women have no rights to land ownership, if their rights to land ownership dissolve upon the death of their husband, or if they are only allocated a small share of community lands, then women may have less incentive to participate in the community mapping process. At the same time, they may be more likely to participate when there is a focus, for instance in the case of Mozambique, to ensure that women can defend their family and garden plots from threats by relatives and peoples within the community. Women may also benefit from an emphasis, such as by the Chepkitale Indigenous Development Project, on collecting data specific to women's knowledge of local plants, animals, and waterways. It is also important to train women in community map-

ping technologies such as the use of GIS and mobile phone platforms. For further guidance and a potential model for empowering women within and through community mapping and digital database platforms, participants noted that the [Aliansi Masyarakat Adat Nusantara](#) (AMAN - Indonesia) women's group has developed a mapping protocol for empowering women, and the Ancestral Domain Registration Agency, or BRWA by its Indonesian acronym, displays data specific to women's knowledge.

European Union General Data Protection Act (GDPR) Considerations

The discussion on digital database platforms also raised questions regarding the potential overlap with privacy protections under the European Union General Data Protection Act (GDPR). As experts in intellectual property law, we only have general expertise in issues of data privacy under the GDPR, but we provide some basic information because questions about the GDPR were raised repeatedly. From the outset, it should be noted that the GDPR applies not only to European organisations that process (collecting, storing, managing) *personal data* of individuals in the EU but also to organisations outside the EU that target people living in the EU regardless of their nationality or citizenship status. And even if the GDPR does not apply, organisations may still have to comply with other domestic data protection legislation. Under the GDPR, "personal data" means any



information relating to an identified or identifiable natural person (known as a 'data subject'). The GDPR goes further to define an identifiable natural person as one who "can be identified, directly or indirectly, in particular by reference to an identifier such as a name, an identification number, location data, an online identifier or to one or more factors specific to the physical, physiological, genetic, mental, economic, cultural or social identity of that natural person." It covers data held electronically and in structured filing systems, thus it applies to any method of organizing personal data in a way that allows for easy retrieval and reference.

Broadly, the GDPR contains the following 7 core principles for the legal processing of personal information:

- *Lawfulness, fairness, and transparency;*
- *Purpose limitation;*
- *Data minimisation;*
- *Accuracy;*
- *Storage limitation;*
- *Integrity and confidentiality; and*
- *Accountability.*

These principles can provide a baseline framework for protecting local communities and Indigenous Peoples' data rights, including obtaining explicit consent, limiting data collection to specific purposes, and ensuring the security of their data. The GDPR also mandates that individuals have the right to access, rectify, or erase personal data, which can enable local communities and Indigenous Peoples to assert greater control over the use of their data and how their information is being used and displayed.

Consent of the 'data subject' is one of the six legal bases for processing personal data; the other are: contract; legal obligations; vital interests of the data subject; the public interest; and legitimate interest. In other words, data can be processed without consent as long as one of the other five lawful bases for processing applies. If, however, consent is the legal basis for the data processing, such consent must be freely given, specific, informed and unambiguous. And data subjects must be allowed to withdraw their consent at any time.

The trouble though is that the GDPR primarily focuses on safeguarding individual rights rather than collective rights or group data pro-

tection. While certain provisions can indirectly benefit groups or communities, such as ensuring fair and transparent data processing practices that may impact collective interests, the GDPR primarily operates within an emphasis on individual data subjects. It also does not go farther to emphasise that personal data must be used ethically according to principles of CARE which, according to the Global Indigenous Data Alliance (GIDA), ensure that Indigenous Peoples have governance over the data and that data ecosystems are designed and function in a way that includes the following: (1) ensures collective benefit for Indigenous Peoples; (2) empowers their authority to control such data; (3) warrants that organizations working with Indigenous Peoples' data have the responsibility to share how data will be used to support Indigenous Peoples' self-determination; (4) establishes that Indigenous Peoples' rights and wellbeing are the primary concern at all stages of the data life cycle and across the data ecosystem (<https://www.gida-global.org/care>). Furthermore, as the GDPR applies only to information related to an identified or identifiable natural person, it fails to account for the protection of information related to lands, forests, plants, animals, and

waterways that Indigenous Peoples' may consider as their ancestral kin.

The GDPR also imposes stricter restrictions on sensitive data. It defines "sensitive data" as special categories of personal data that are particularly sensitive and warrant additional protection due to their potential to significantly impact an individual's fundamental rights and freedoms. These special categories include data revealing racial or ethnic origin, political opinions, religious or philosophical beliefs, trade union membership, genetic data, biometric data for the purpose of uniquely identifying a natural person, health-related data, or data concerning a person's sex life or sexual orientation.

As a general rule, processing of sensitive data is prohibited under the GDPR. However, under certain circumstances, organisations are still allowed to process such data, including when *explicit* consent was given by the data subject. Explicit consent is therefore generally considered the gold standard when processing non-sensitive and sensitive personal data. This means that organizations such as Tenure Facility must ensure they have explicit consent to



process local communities' and Indigenous Peoples' data, especially regarding their racial or ethnic origin, political opinions, and religious or philosophical beliefs. The GDPR defines explicit consent as a clear, specific, and freely given indication of a data subject's wishes through a statement or affirmative action, signifying their agreement to the processing of their personal data for a specific purpose. Thus, under GDPR, organizations must request explicit consent from members of local communities and Indigenous Peoples, at least regarding their sensitive data, but this raises concerns of whether members are authorized to give such consent regarding the sharing of political opinions and religious or philosophical beliefs that are held collectively by the community.

All this said, under the GDPR, the processing of personal data (and even sensitive personal data) is permissible in certain circumstances without the consent of the data subject. But this is in direct tension with Indigenous Data Sovereignty principles that specify that those processing any and all Indigenous Peoples' Data must ensure that free, prior, and informed consent has been given.

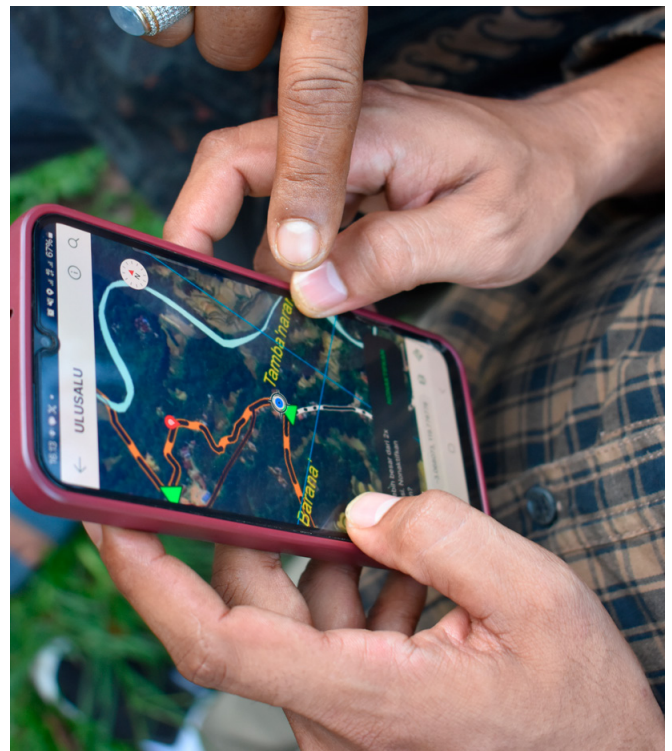
Lastly, data transfers to third countries may not be permitted under the GDPR. The GDPR distinguishes between secure and unsecure third countries. Data transfers to secure countries is permitted and those are countries for which the European Commission has determined that they have comparable and adequate levels of data protection. Transfers into other countries are more difficult but still possible as long as certain requirements are met, e.g., if the consent of the data subject was obtained.

Visions for safeguarding Indigenous Peoples' data sovereignty

As participants gathered for the second day of the workshop, they turned to a discussion on developing the next steps. Laura Foster designed an activity and facilitated a discussion with Tobias Schonwetter on how individuals and teams within Tenure Facility might begin to de-

velop their own set of guidelines for safeguarding Indigenous Peoples Data Sovereignty (see Appendix "Vision Activity"). The participants emphasized the need to assess when concerns related to the safeguarding of data are especially sensitive and complex, and to break the issues down into their specific component parts rather than discuss them in generality. While the emphasis during the workshop was placed on what organizations such as Tenure Facility should do to address the safeguarding of data, the other element is how to support community partners that want to incorporate principles of Indigenous Data Sovereignty into their community mapping practices and FPIC processes.

The community partners who have already engaged in participatory mapping and FPIC would have to retroactively engage in the consent process again regarding digital data, thus Tenure Facility would have to consider the implications of this. As participants discussed the next steps as outlined below, they articulated the opportunity for Tenure Facility to be leaders in supporting local communities and Indigenous Peoples in safeguarding their data and its increasing use in digital community mapping platforms.



NEXT STEPS AND RECOMMENDATIONS

1. *Develop a set of guiding questions for Tenure Facility to use in discussions with community partners to better understand their existing protocols for free, prior, and informed consent and data governance protocols.*
2. *Provide technical support and resources to local communities' and Indigenous Peoples' who want to develop their own protocols for free, prior, and informed consent and also data governance.*
3. *Develop Tenure Facility internal guidelines for processing, storing, and safeguarding local communities' and Indigenous Peoples' data (and related metadata) that adheres to principles of Indigenous Data Sovereignty and the different data governance plans of specific communities.*
4. *Develop a Data Safeguarding Protocol to be signed with community partners that provides a checklist for local communities and Indigenous Peoples to specify consent regarding how Tenure Facility should store, use, and safeguard their data. The checklist may include:*
 - a. *Who in the community can give these permissions for data safeguarding protocols?*
 - b. *What data can be shared or not?*
 - c. *What are the potential benefits to the community for sharing their data?*
 - d. *What are the potential risks to the community for sharing their data?*
 - e. *Who will retain ownership of the data?*
 - f. *Who can data be shared with and for what purposes?*
 - g. *How can the data be stored and secured?*
 - h. *What happens to the data when the project is finished?*
 - i. *What happens if the data is breached due to a cybersecurity threat?*
 - j. *What happens with the data if Tenure Facility dissolves?*
 - k. *What measures are provided to the community to change or withdraw their permissions to share data?*
5. *Provide knowledge sharing workshops and materials on Indigenous Peoples' rights to Indigenous Data Sovereignty and Indigenous Data Governance to raise awareness among all Tenure Facility staff and community partners.*
6. *Draft one-page descriptions in simple language for community partners to deepen their knowledge of intellectual property issues and/or principles of Indigenous Data Sovereignty and Indigenous Data Governance.*
7. *Establish a Thematic Focal Point and/or internal task force on concerns related to Indigenous Data Sovereignty and digital community mapping platforms to drive the issue.*
8. *Review Tenure Facility bylaws to specify what happens to local communities' and Indigenous Peoples' data upon its dissolution.*

9. *Review and revise Tenure Facility grant agreements to:*
 - a. *Ensure adherence to safeguarding local communities and Indigenous Peoples' data according to principles of Indigenous Data Sovereignty and the different data governance plans of specific communities.*
 - b. *Include a clause that if Tenure Facility employs a photographer to take pictures related to their activities, the copyright ownership of the image is held by Tenure Facility to ensure that the image is used and distributed only by Tenure Facility and according to the permissions of those represented in the image.*

Endnotes

- 1 https://indigenusinnovate.org/downloads/indigenous-knowledges-and-data-governance-protocol_may-2021.pdf (p. 2).
- 2 At the time of writing this report, key donor organisations of the Tenure Facility are: the Swedish International Development Corporation Agency (Sida), the Norwegian Agency for Development (Norad), the European Commission, the Ford Foundation, the Bezos Earth Fund, the Oak Foundation and the Robert Bosch Stiftung.

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Appendix A: Selective Indigenous Data Sovereignty principles and Indigenous Data Governance protocols

[Māori Data Governance Model \(2023\)](#)

[Principles of Māori Data Sovereignty \(2018\)](#)

[Global Indigenous Data Alliance CARE Principles \(2018\)](#)

[National Inuit Strategy on Research \(2018\)](#)

[Maiam nayri Wingara Indigenous Data Sovereignty Principles \(2018\)](#)

[San Code of Ethics \(2017\)](#)

[Principles of Ethical Métis Research \(2011\)](#)

[First Nations Principles of OCAP@ \(1998\)](#)

Appendix B: Programme Agenda

TECHNOCULTURAL DATA PROTOCOLS DIALOGUE WORKSHOP

26-27 OCTOBER 2023 | STOCKHOLM, SWEDEN

Introduction

The workshop will bring together a diverse set of stakeholders (e.g. non-profit organisations, community federations, donor agencies, consulting groups, and academic organisations) with related interests and expertise regarding land and forest rights, data governance, data sovereignty, and/or intellectual property rights.

Tenure Facility recently initiated a research study to examine how a diverse set of individuals and groups working to support land tenure claims by Indigenous Peoples and local communities are thinking differently about opportunities and concerns related to data sharing, data governance, and intellectual property. This research comes in response to an exciting moment.

Concurrently, the COP26 pledge of USD 1.7 billion to Indigenous Peoples and local communities to protect biodiverse lands and forests, along with the rise of new digital technologies, has enabled novel opportunities within efforts towards community mapping and land tenure claims. With new possibilities, however, comes the need to ask new yet familiar questions about how to protect Indigenous data sovereignty and intellectual property rights.

The goal of the workshop is to lead a set of dialogues regarding practices of community mapping and land tenure claims around the following initial questions, while being open to further inquiries:

1. What are some of the latest practices and most pressing concerns related to the sharing and governing of Indigenous Peoples community data right now?
2. How have changes in technology generally and/or recent advances in digital mapping technologies produced new concerns related to the sharing and governing of Indigenous Peoples community data?
3. How have changes in funding mechanisms, donor policies, and/or donor agreements produced new concerns related to the sharing and governing of Indigenous Peoples community data?
4. How does intellectual property law and/or principles of free and prior informed consent impact practices and concerns related to the sharing and governing of Indigenous Peoples community data right now?
5. What are some of the latest protocols and model initiatives (e.g. [CARE principles](#), [Biocultural Labels](#)) for the protection of Indigenous Peoples data sovereignty, and how might they support practices of community mapping and land tenure claims?

6. What changes to practices, protocols, policies, and technologies would you like to see for the future of community mapping and land tenure claims to ensure the protection of Indigenous Peoples data sovereignty?
7. Is there a need to develop a shared set of “technocultural data protocols” for the protection of Indigenous Peoples data sovereignty specific to practices of community mapping and land tenure claims? If so, what might this process entail? If not, why not?

The workshop will feature an interactive and participatory format to cultivate a space for dialogue to discuss pressing concerns, develop shared understandings, and begin to envision new practices and protocols for enabling Indigenous Peoples data sovereignty and their rights to land and the protection of forests.

PROGRAMME OUTLINE

Thursday 26th October

Start 9:00 hrs.

Session 1: Surveying: *What are some of the latest practices and most pressing concerns related to the sharing and protecting of Indigenous Peoples and local communities data right now?*

Session 2: Plotting Points: *How do recent changes (e.g. in technology, donor funding mechanisms, intellectual property law, free and prior informed consent protocols, etc.) raise new concerns regarding the sharing and protecting of Indigenous Peoples and local communities data right now?*

Session 3: Planting Seeds: *What are some of the latest protocols and model initiatives (e.g. [CARE principles](#), [Biocultural Labels](#)) for the protection of Indigenous Peoples and local communities data sovereignty, and how might they support practices of community mapping and land tenure claims for Tenure Facility and its partners?*

Evening: Group dinner.

Friday 27th October

Start 9:00 hrs.

Session 4: Imagining Growth: *What changes to practices, protocols, policies, and technologies would you like to see for the future of community mapping and land tenure claims to ensure the protection of Indigenous Peoples and local communities data sovereignty?*

Closure: 15:30 hrs.

Appendix C: Activity – Indigenous Data Sovereignty

INDIGENOUS DATA SOVEREIGNTY - ACTIVITIES

Background

Findings from our research revealed concerns related to balancing the need to share data openly with the need to protect local, and Indigenous Peoples' data. Based on our research, we found that participants raised concerns regarding the sharing of various forms of spatial data (see Appendix), and also photographs and narrative stories.

Goal

To apply learnings related to intellectual property and indigenous data sovereignty to concerns related to scenarios of data sharing. To develop a set of questions to help drive policy changes towards balancing between data openness and protection.

Small Group Activities Tasks

1. Divide into small groups in person, and online.
2. Pick and discuss ONE scenario and the discussion questions below.
3. Report back to larger group for each question summarizing your discussion.

Scenarios

SPATIAL DATA:

1. What concerns arise regarding the sharing of spatial data of community mapping projects?
2. How do concerns differ depending on **the content** of spatial data is shown? (e.g. community boundary, high value species, sacred sites)
3. How do concerns differ depending on **the use** of spatial data? (e.g. marketing on website or social media, financial reporting, annual reports)
4. How to ensure **consent** for the use of spatial data?
5. How might concerns related to **gender** arise?

PHOTOGRAPHS:

1. What concerns arise regarding the sharing of photographs?
2. How do concerns differ depending on the content in the photograph?
3. How do concerns differ depending on the use of photographs? (e.g. marketing on website or social media, financial reporting, annual reports)
4. How to ensure consent for the use of the photograph?
5. How might concerns related to gender arise?

NARRATIVE STORIES:

1. What concerns arise regarding the sharing of narrative stories from community members?
2. How do concerns differ depending on the content of the narrative stories?
3. How do concerns differ depending on the use of narrative stories? (e.g. marketing on website or social media, financial reporting, annual reports)
4. How to ensure consent for the use of narrative stories?
5. How might concerns related to gender arise?

LARGE GROUP DISCUSSION:

1. Report Back on Scenarios Small Group Discussion
2. What are other forms of data should we be discussing?
3. AI recordings of TF meetings?
4. What is the role of data privacy under GDPR in this discussion?

RESEARCH FINDINGS RELATED TO SHARING OF DATA

Data more likely to be shared:

Perimeter data of land boundaries.

Data less likely to share to general public, more for internal community information:

- | | |
|--------------------|--------------------------------|
| 1. bird habitats | 7. high value timber trees |
| 2. beetle habitats | 8. fruit trees |
| 3. swallow nests | 9. high value minerals |
| 4. natural springs | 10. spiritual and sacred sites |
| 5. caves | 11. medicinal plants |
| 6. waterholes | 12. burial grounds |

Appendix D: Activity – Digital Databases

COMMUNITY MAPPING IN A DIGITAL WORLD - ACTIVITY

Background

A significant finding from our research revealed concerns related to shifts in community mapping from paper maps to online digital mapping databases. After analyzing all the interview transcripts, a set of guiding questions (see Appendix) started to emerge.

Goal

To apply learnings related to intellectual property and indigenous data sovereignty to concerns related to online digital mapping databases. To develop a set of questions to help drive innovation in the area of digital mapping..

Small Group Activities Tasks

1. Divide into three small groups in person, and one online group.
2. Review the website of the online case study map assigned to your group.
3. Review the website with the three questions in mind below.
4. Report back two bullet points for each question summarizing your discussion.

Case Study Groups:

<https://www.landmarkmap.org/>

<https://chepkitale.org/mapping/>

<https://www.brwa.or.id/wa> Tenure Facility – potential map

Questions for Small Group Discussion:

1. Who and what is the map being used for?
2. What information is being displayed? (and not displayed)?
3. What data sharing and confidentiality concerns come to mind?

RESEARCH FINDINGS RELATED TO DIGITAL MAPPING PROJECTS

1. Who and what types of organizations are making the digital maps?
2. Who are the digital maps for?
 - a. Individual, specific communities?
 - b. Global networks?

3. How are digital maps being used?
 - a. To negotiate with governments?
 - b. To show territorial boundaries?
 - c. To demonstrate project activities to donors?
4. What community mapping data is being digitized (or not)?
5. What and how is the data being displayed publicly?
6. Who owns the digital map?
7. Where is the data being stored? Who owns the servers?
8. Who has access to the map and its data?
9. Who and how is access being granted?
10. What data privacy and sharing protocols seem to be in place?
11. How are the data privacy and sharing protocols being enforced?
12. How is the design (e.g. appearance, drop down menus) of the digital map itself incorporating principles of Indigenous Data Sovereignty and free, prior informed consent?

Appendix E: Activity – Visioning

NEXT STEPS AND DATA PROTOCOLS ACTIVITY

Goal

To develop a vision towards next steps for you individually and for your organization.

Small Group Discussion Questions

- a. What next steps might you take in your individual role?
- b. What next steps might your organization take?

Small Group Discussion: Data Protocols

- a. What purpose and who would the data protocols be for? (internal, community partners, external on TF website?)
- b. What format would they take? (statement, guiding questions, pictorial representation, video)
- c. What would be some key elements to address? (see Appendix)

SPATIAL DATA AND DIGITAL MAPPING CONCERNS – NOTES FROM YESTERDAY'S DISCUSSION

Attribution – giving proper credit

Conflicts can emerge from data disclosure and mapping with different communities. Data can be used to identify and take resources. Data is format and stored in ways that are easily accessible for long-term. Data is represented and displayed as compatible with political commitments.

Need to only show certain data when in negotiation with government for formal consent. Protect communities and Indigenous Peoples from outside use of GIS data to map their lands

Opportunities and concerns with sharing data with other organizations

Decisions regarding what data to share (or not) should be discussed early to ensure they are designed into the process and final product.

Decisions regarding what mapping data to overlay

Need for different maps for different communities and different projects. Participatory mapping process must include women from beginning.

Design of maps should consider how strengthen opportunities for women in the community.

RESEARCH FINDINGS RELATED TO DIGITAL MAPPING PROJECTS

Who and what types of organizations are making the digital maps?

1. Who are the digital maps for?
 - a. Individual, specific communities?
 - b. Global networks?
2. How are digital maps being used?
 - c. To negotiate with governments?
 - d. To show territorial boundaries?
 - e. To demonstrate project activities to donors?
3. What community mapping data is being digitized (or not)?
4. What and how is the data being displayed publicly?
5. Who owns the digital map?
6. Where is the data being stored? Who owns the servers?
7. Who has access to the map and its data?
8. Who and how is access being granted?
9. What data privacy and sharing protocols seem to be in place?
10. How are the data privacy and sharing protocols being enforced?
11. How is the design (e.g. appearance, drop down menus) of the digital map itself incorporating principles of Indigenous Data Sovereignty and free, prior informed consent?

SELECTED RESEARCH FINDINGS RELATED TO DATA PROTOCOLS AND PRACTICES

[Biocultural Community Protocols](#) to establish community governance.

[Local Contexts](#) - Biocultural and Traditional Knowledge Labels and their [Indigenous Data Sovereignty](#) statements

[Mapeo](#) digital mapping tools

Appendix F: Agreements and other TF Documents considered

Donor Agreements

- a. EU
- b. Ford
- c. Norad
- d. Sida
- e. Christensen

TF-Partner Agreements

- a. Pre-2022 Template (with Appendices)
- b. 2022 Template (with Appendices and project/reporting templates)
- c. TF memo to Ad hoc working group
- d. Infograph Cycle
- e. Draft Data Sharing Agreement

Case studies

- a. Belize
- b. Indonesia
- c. Liberia

TF Policies, Standards, Guidelines

- a. Indigenous Peoples and Local Communities Policy
- b. Anti-Bribery and Anti-Corruption Policy
- c. Procurement Policy (internal)
- d. Procurement Policy (for TF Partners)
- e. Board Conflict of Interest Policy
- f. Whistle-Blower Policy
- g. Standards
- h. External Audit Policy
- i. Anti-Money Laundering and Anti-Terrorism Financing Policy
- j. Gender Policy
- k. Private Sector Engagement Policy
- l. Sustainable Development Policy
- m. Travel Policy
- n. IT Policy
- o. Privacy, Data Security and Cookie Policy (GDPR)

Annual Reports

Other

- a. Agreement Comparison Annex PPT (Björn Druse)
- b. High Level Agreements
- c. EU GDPR & EU Charter of Fundamental Rights
- d. Swedish Laws & Policies

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