

“Mapping for Rights”: Indigenous Peoples, Litigation and Legal Empowerment

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Abstract

In the process of adjudication and litigation, indigenous peoples are usually facing a very complex and demanding process to prove their rights to their lands and ancestral territories. Courts and tribunals usually impose a very complex and onerous burden of proof on the indigenous plaintiffs to prove their rights over their ancestral territories. To prove their rights indigenous peoples often have to develop map of their territories to prove their economic, cultural, and spiritual connections to their territories. This article reflects on the role played by the mapping of indigenous territories in supporting indigenous peoples' land claims. It analyses the importance of mapping within the process of litigation, but also its the impact beyond the courtroom.

1 Introduction

Indigenous peoples are generally subjected to complex legal processes, which usually impose an onerous burden on the indigenous plaintiffs to prove their rights. In most processes of litigation, indigenous peoples face a very high level of proof, as courts have put the burden on the indigenous claimants to prove their rights. In practice, this means that before going to court, indigenous peoples and their legal teams have to develop a process of documenting their customary land tenure. For this purpose, many techniques and long-term strategies need to be developed and put in place by the communities, their legal teams and supporting Non-Governmental Organisations (NGOs) to surmount the challenges of proving land tenure. This often includes mapping of their territories to prove their economic, cultural and spiritual connections to those territories. Mapping has become one of the main methods of proving land rights entitlements. Mapping of indigenous territories is not a new phenomenon as there is evidence of traditional and historical mapping.¹ However, mapping has

recently become much more politicised as global competition for land increases, notably becoming an important element in proving land rights before the courts.

In this context, it is important to understand and analyse how such mapping is developed, used and received. This article examines this phenomenon in order to understand its importance within the process of litigation and to analyse the impact of such mapping on the communities concerned beyond the courtroom. By looking at some specific situations, this article wishes to reflect on the role played by the mapping of indigenous territories in supporting indigenous peoples' land claims. For this purpose, the first section examines the role of mapping as a tool to support evidence of land rights for indigenous peoples. It analyses how courts have usually established a complex burden of proof on indigenous communities, who have to prove a continuous and traditional land usage. Based on this overview, the second section focuses on the development of new technologies to support direct and participatory mapping from the communities. The third section offers an analysis of the impact that mapping can have in terms of the legal empowerment and capacity building of the communities engaging with participatory mapping.

1.1 The ‘Burden of Proof’: Proving Historical, Continuous and Traditional Land Usage

Indigenous peoples are often faced with a very high burden of proof as, rarely possessing formal land titles, indigenous peoples have to prove that they have historical and cultural attachment to their territories. Courts have usually required that indigenous peoples need to demonstrate evidence of a ‘continuous’ and ‘traditional’ attachment to their territories. These notions of ‘continuous’ and ‘traditional’ have been central to the common law doctrine on aboriginal rights.² Canadian and Australian courts have particularly insisted on the need for aboriginal and indigenous claimants to prove a traditional and continuous occupation of their land. This issue has been an important element of the jurisprudence of some of the common law jurisdictions during the 1970s–1990s.³ Landmark rulings from Canada, Aus-

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1. See H. Brody, *Maps and Dreams. Indians and the British Columbia Frontier* (London: Faber and Faber) (2002); G. Lewis & D. Woodward (eds.), *The History of Cartography. Vol. 2, Book 3: Cartography in the Traditional African, American, Arctic, Australian, and Pacific Societies* (Chicago/London: University of Chicago Press) (1998), at 639; J. Fox, K. Suryanata & P. Hershock (eds.), *Mapping Communities. Ethics, Values, Practice* (Honolulu: East-West Center) (2005).

2. For a detailed and critical analysis, see P. McHugh, *Aboriginal Title: The Modern Jurisprudence of Tribal Land Rights* (Oxford: Oxford University Press) (2011).

3. See K. McNeil, ‘Aboriginal Title and the Supreme Court: What’s Happening’, 69 *Saskatchewan Law Review* 281 (2006); M.A. Stephenson & S. Ratnapala, *Mabo: A Judicial Revolution: The Aboriginal Land Rights Decision and Its Impact on Australian Law* (Brisbane: University of Queensland Press) (1993).

tralia and New Zealand were based on the central importance of recognising that colonisation, and the post-colonial legal systems, have not extinguished indigenous peoples' land rights. These rights are based on their own customary laws, which have 'survived' colonisation and therefore need to be recognised and protected by States. Indigenous claimants have to prove 'continuity' and the maintenance of 'traditional' usage of the land. These demands come with some coercion for indigenous peoples who have to prove their so-called 'traditional' land usage. Looking at the context of Australia, Wolfe refers to such processes as 'repressive authenticity', where aboriginal people are forced to prove their 'authentic' traditional ways of using the land to get the right to use their own territories.⁴ Likewise, looking at the situations faced by several indigenous communities in Asia and the Pacific, Murray Li highlights how they have to use an idiom of traditional custom to have the right to use the resources located on their own territories.⁵ Engel refers to this process as 'strategic essentialism'.⁶ This process of 'authenticity' also goes against the international human rights-based approach to cultural rights, which has supported a non-frozen rights approach to the meaning of 'traditions' and 'authenticity', instead of supporting modernity and adaptation to contemporary conditions.⁷ Despite such issues, the demand by courts on indigenous peoples to prove their historical, cultural and traditional land usage has become a common ground across the globe and shares similarities with the post-colonial concept of Aboriginal or Native Title.⁸ Indeed, many communities are facing the same issue of having to 'demonstrate' their right to land on the basis of their actual possession coupled with the claim that their land rights have survived colonisation and therefore should be recognised and enforced by post-colonial courts. This has been the case in jurisdictions across Africa and Asia, as courts have usually adopted a similar approach of putting the burden of the proof of traditional and historical occupation on the indigenous claimants.⁹ For

example, in a case in Malaysia one of the judges stated: 'If the present generation can prove that they are practicing customs which historians described as having been practiced 200 years ago, then that is sufficient proof that such native customary rights had been practiced 200 years ago.'¹⁰ Similar approaches emerge from Latin and Central America, where indigenous peoples also face a high burden of proof to demonstrate their cultural and ancestral entitlement to their lands.¹¹ While there are fewer cases emerging from Europe, several cases, notably from Scandinavian countries, have also relied on the need for indigenous peoples to prove their 'immemorial land usage'.¹² Overall, it seems that most legal systems across the globe put the onus of the proof on indigenous peoples to demonstrate their rights to their ancestral territories and their 'traditional' land usage.

One of the challenges for many indigenous communities is to get their rights to land recognised under a dominant Western legal system.¹³ Most legal systems have adopted Western approaches to adjudication relying on formal and written evidence, whereas often indigenous peoples' customs, traditions and land laws are oral and not formally written. Moreover, most indigenous tenure systems rely on the notion of space-sharing and non-exclusivity, something that is not recognised under the dominant civil and common law legal systems. The notion of land sharing runs counter to the dominant interpretation of property rights, which is usually based on exclusivity.¹⁴ The hegemonic model of property is based on a right to ownership, which is individual and exclusive.¹⁵ This notion of exclusivity is usually not found in indigenous peoples' traditional approach to land usage, which is usually based on collective and shared usage of the land. Scoones speaks of 'fuzzy access rights', which are characterised by multiple overlapping and flexible rights and overlapping claims.¹⁶ These 'fuzzy access rights' constitute a 'complex set of overlapping

4. P. Wolfe, *Settler Colonialism and the Transformation of Anthropology: The Politics and Poetics of an Ethnographic Event* (London: Cassell) (1999).
5. T. Murray Li, 'Indigeneity, Capitalism and the Management of Dispossession' 51(3) *Current Anthropology* 385 (2010).
6. See K. Engel, *The Elusive Promise of Indigenous Development: Rights, Culture, Strategy* (Durham: Duke University Press) (2010), 10.
7. See M. Scheinin, 'The Right to Enjoy a Distinct Culture: Indigenous and Competing Uses of Land', in T.S. Orlin & M. Scheinin (eds.), *The Jurisprudence of Human Rights: A Comparative Interpretive Approach* (Turku: Institute for Human Rights) (2000); J. Gilbert, *Indigenous Peoples' Land Rights under International Law* (Leiden, Boston, and Tokyo: Brill) (2016).
8. J. Gilbert, 'Historical Indigenous Peoples' Land Claims: A Comparative and International Approach to the Common Law Doctrine on Indigenous Title', 56(3) *International & Comparative Law Quarterly* 583-611 (2007).
9. See G. Lynch, 'Becoming Indigenous in the Pursuit of Justice: The African Commission on Human and Peoples' Rights and the Endorois', 111(442) *African Affairs* 24-45 (2011); S. R. Aiken & C. H. Leigh, 'Seeking Redress in the Courts: Indigenous Land Rights and Judicial Decisions in Malaysia', 45(4) *Modern Asian Studies* 825-75 (2011); J. Gilbert, 'Litigating Indigenous Peoples' Rights in Africa: Potentials, challenges and

limitations', 66 *International and Comparative Law Quarterly* 657 (2017).

10. *Nor Nyawai HC* [2001] 6 MLJ.
11. See C.R. Hale, 'Activist Research v. Cultural Critique: Indigenous Land Rights and the Contradictions of Politically Engaged Anthropology', 21(1) *Cultural Anthropology* 96-120 (2006); M. Chapin, 'Indigenous Land Use Mapping in Central America', 98 *Yale School of Forestry & Environment Studies Bulletin* 195-209 (1995).
12. See Ø. Ravna, 'The Draft Nordic Saami Convention and the Assessment of Evidence of Saami Use of Land', in N. Bankes & T. Koivurova (eds.), *The Proposed Nordic Saami Convention National and International Dimensions of Indigenous Property Rights* (Portland: Hart Publishing) (2013).
13. See Murray (2010), above n. 5, at 385.
14. See R.C. Ellickson, 'Property in Land', 102 *Yale Law Journal* 1315-1400 (1993); H. De Soto, 'Law and Property Outside the West: A Few New Ideas About Fighting Poverty', 29(2) *Forum for Development Studies* 349-61 (2002).
15. See J. Tully, 'Aboriginal Property and Western Theory: Recovering a Middle Ground', 11(2) *Social Philosophy and Policy* 153-80 (1994).
16. I. Scoones, 'New Directions in Pastoral Development in Africa', in I. Scoones (ed.), *Living with Uncertainty: New Directions in Pastoral Development in Africa* (London: Intermediate Technology Publications) (1994).

rights that are continuously contested and renegotiated'.¹⁷

The burden of proof is even higher for societies who are relying on a nomadic or transhumant use of the land. National land laws, land tenure systems and property rights regimes usually do not recognise a nomadic ownership of the land. The specificities of nomadic or transhumant land rights, which often involve informal collective land sharing usages, are rarely recognised as constituting proof of any rights to the land.¹⁸ In most societies, there is an assumption that nomads have no right to the land because they are never in a fixed area.¹⁹ For example, Biesbrouck, an anthropologist working with the Bagyéli hunter-gathering communities in Cameroon, describes the Bagyéli as incorporated within the agriculturalist Bantu land tenure arrangements while also using their very specific system of tenure.²⁰ The land tenure system varies depending on whether the Bagyéli are within a territory dominated by the Bantu or whether they are in a territory where these rules do not apply. Interestingly, the two systems appear not to be in conflict and quite complementary. As highlighted by Kenrick and Kidd, this system relies heavily on good relationships, as 'their rights are not based on exclusively owned property but flow from good relations; their focus is on maintaining good relations rather than firm boundaries.'²¹ The demand on such communities to prove a 'continuous' and 'exclusive' land usage in order to prove their rights to their land is highly problematic and does not reflect the reality of indigenous land tenure systems.

Overall, opting for litigation for the recognition of their land rights usually means that indigenous peoples have to produce evidence of their continuous and traditional usage of the lands, often having to show an exclusive right over these lands. This could be an overwhelming and also disturbing process for many indigenous communities whose customary land tenure systems are often based on customs and interrelationships between groups, with boundary agreements that rely on shared knowledge and rights over resources, rather than the construction of fences. Seeking to provide evidence based on their own customary and traditional terms, many indigenous peoples have started to map their own territories to bring evidence of their own land usage to the courts.

1.2 Participatory Mapping, Data Collection and the Courts

The use of maps as evidence of land occupation, ancestral ties to a territory and traditional land usages has increasingly become an important vehicle to prove land rights. Mapping is often essential since in most situations the courts are located far from the concerned lands, and as judges would not have access to or direct knowledge of the territories concerned they would have to rely on maps. Maps could provide essential information to support the legal claims and also challenge some of the arguments that authorities might advance against indigenous peoples. For example, in the landmark case of the Awas Tigni community against Nicaragua, which was examined by the Inter-American Court of Human Rights, the government of Nicaragua challenged the claim made by the community over their ancestral territory. The lawyers for the government of Nicaragua stated: 'The only proof in support of the supposed ancestral occupation of these lands that they claim is a document constructed solely on the basis of oral testimonies of the interested parties, a study that has no documented source, no archeological evidence, not even testimonies of the neighboring communities.'²² In such contexts, the mapping of territories can offer some important elements to support indigenous peoples, notably allowing for the inclusion of traditional and cultural mapping of land usage.

Historically, mapping has predominately been an instrument of colonisation and administrative control. As famously stated by Harley, 'As much as guns and warships, maps have been the weapons of imperialism.'²³ However, this has changed as mapping has become an instrument for local communities to challenge the dominant narrative on land usage and possession.²⁴ Mapping is used by indigenous peoples as a method of documenting land use and occupancy for the purpose of negotiating land and resource rights.²⁵ The goal of community mapping is to record hunting, fishing, trapping and gathering patterns as well as important cultural and religious sites. Hence, increasingly, maps and mapping technologies have also played an important role in supporting evidence of land rights in litigation.

The translation of cultural, spiritual and other significant traditional attachments to a territory is not always a straight-forward process. A variety of mapping technol-

17. *Ibid.*

18. See J. Gilbert, *Nomadic Peoples and Human Rights* (London: Routledge) (2014).

19. However, see recent exceptions made by courts in Norway, see Ø. Ravn, 'The Process of Identifying Land Rights in Parts of Northern Norway: Does the Finnmark Act Prescribe an Adequate Procedure within the National Law?', 3 *The Yearbook of Polar Law* 423-53 (2011).

20. J. Berg & K. Biesbrouck, *The Social Dimension of Rainforest Management in Cameroon: Issues for Co-management* (Kribi, Cameroon: Tropenbos-Cameroon Programme) (2000), 29.

21. J. Kenrick & C. Kidd, *Land Rights and the Forest Peoples of Africa - Overview: Analysis & Content* (Moreton-in-Marsh: Forest Peoples programme) (2009), 17.

22. Corte Interamericano de Derechos Humanos, Caso Comunidad Maya-gna (Sumo) Awas Tingni. Transcripción de la audiencia publicasobre el Fondo, celebrada los días 16, 17 y 18 de noviembre de 2000, en la sede de la Corte, 232, as cited and translated in Hale (2006), above n. 11, at 96-120.

23. J. B. Harley, 'Maps, Knowledge, and Power', in D. Cosgrove & S. Daniels (eds.), *The Iconography of Landscape: Essays on the Symbolic Representation, Design and Use of Past Environments* (Cambridge: Cambridge University Press) (1988), 282.

24. For a review and history of mapping, see M. Chapin, Z. Lamb & B. Threlkeld, 'Mapping Indigenous Lands', 34 *Annual Review Anthropology* 619-38 (2005).

25. I. Hirt, 'Cartographies autochtones. Éléments pour une analyse critique', 38(2) *L'Espace géographique* 171-86 (2009).

ogies and approaches exist. They vary from highly participatory approaches involving sketch maps to more technical efforts with geographic information systems (GIS), the Global Positioning System (GPS) and remote sensing. The technology is supported and enhanced by the participation of the communities with mapping combining participatory techniques with the increasingly available technologies. As noted by Godden and Tehan, ‘The technology “decodes” the type of relationship with land and resources that are recognized and afforded legal protection.’²⁶ However, one danger is the fact that mapping technology is often led by materialistic approaches to land usage. Rundstrom has a very critical analysis on the impact of technology used for mapping, noting that ‘the Western or European-derived system for gathering and using geographical information is in numerous ways incompatible with corresponding systems developed by indigenous peoples of the Americas ... GIS technology, when applied cross-culturally, is essentially a tool for epistemological assimilation, and as such, is the newest link in a long chain of attempts by Western societies to subsume or destroy indigenous cultures.’²⁷

The answer to these dangers has been an increased focus on participation in mapping, allowing communities to directly create their own maps rather than rely on surveyors and specialised technicians. Mapping has moved from a traditionally high technology and specialised field to a much more accessible and participatory approach where communities themselves can play a role. There are many names for such mapping techniques – ‘participatory land use mapping’, ‘participatory resource mapping’, ‘community mapping’ or ‘ancestral domain delimitation’. All these refer to the idea of direct involvement of the communities concerned. The use of less technologically demanding approaches to mapping such as participatory three-dimensional modelling or even community sketch maps on paper has also improved participation for communities. In recent years, spatial information technologies have become more accessible in design, utility, availability and in terms of prices, making them much more accessible to indigenous communities. While historically the use of many technologies remained out of reach of resource-poor groups, the proliferation of affordable electronic devices over the last two decades has increased the availability of mobile phones, computing and other devices to many previously technologically underserved communities. Many indigenous groups have experienced the technology ‘leapfrog’ phenomenon, having never previously received fixed line telecommunications but now having access via mobile networks to voice and data

communication.²⁸ Mobile phones, in particular, are well suited to use by indigenous groups, given oral communication traditions, often residing away from wired infrastructure, movement and with the accessibility of prepaid systems for people with low or no income.²⁹ Similarly, the advent of portable and affordable GPS integration in mobile phones and of low-cost handheld GPS modules is also well suited for indigenous peoples, in terms of documenting traditional knowledge and territories.

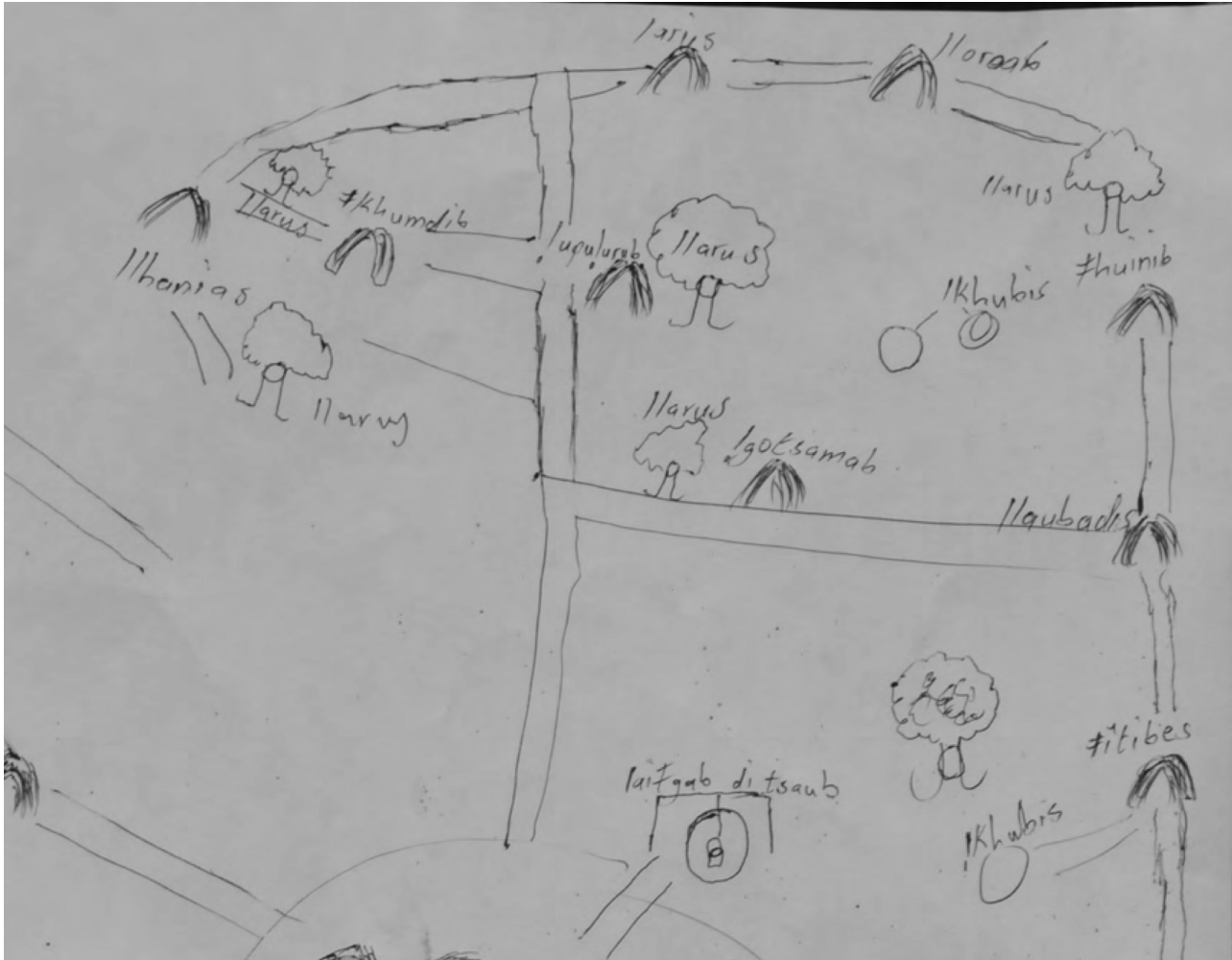
This combination of communications and mapping technologies, growing in use while not yet ubiquitous, has been implemented with great success in a range of projects with indigenous peoples, from the digital documentation by mobile phone of traditional knowledge by Penans in Malaysia³⁰ to use of GPS tracking devices by Sami for monitoring reindeer herds.³¹ The innovative use of this technology to provide evidence for land and natural resource related to litigation regarding indigenous peoples has a long-standing history. At the time when the US Department of Defense’s GPS system became fully operational in 1995, the Earth Island Institute (EII) Borneo Project conducted a sketch mapping exercise of Kayan peoples’ resource use, partially in response to incursions by logging companies within Kayan territories. The simple sketch maps were then used to guide participants with early portable GPS units, then costing US\$3800 each, to collect coordinates and produce an accurate map of Kayan traditional knowledge and resource utilisation for use in future legal challenges.³²

This type of community-level mapping approach has become extremely relevant in the context of litigation and is all the more accessible through lower-cost, user-friendly technology. Below is an example of a series of sketch maps completed by a San community living within their traditional territory in north-central Namibia in 2015. The area was largely designated for agricultural projects under Namibia’s pre-independence South African government, hence sowing disagreement over tenure rights. The maps were drawn with pen and paper through discussions between youth and elders of the community, documenting places of importance in the vicinity of the settlement. These included cultural sites,

26. L. Godden & M. Tehan, *Comparative Perspectives on Communal Lands and Individual Ownership: Sustainable Futures* (New York: Routledge) (2010), 6.
27. R. Rundstrom, ‘GIS, Indigenous Peoples, and Epistemological Diversity’, 22 *Cartography and Geographic Information Systems* 45-57, at 45 (1995).

28. L. Dyson, ‘Framing the Indigenous Mobile Revolution’, in E. Dyson, M. Hendriks & S. Grant (eds.), *Indigenous People and Mobile Technologies: Routledge Studies in New Media and Cyberculture* (New York: Routledge) (2016).
29. F. Brady, L. Dyson & T. Asela, ‘Indigenous Adoption of Mobile Phones and Oral Culture’, in F. Sudweeks, H. Hrachovec & C. Ess (eds.), *Proceedings Cultural Attitudes Towards Communication and Technology* (Australia: Murdoch University) (2008), 384-98.
30. T. Zaman, N. Kulathuramaiyer & A. Yeo, ‘eToro: Appropriating ICTs for the Management of Penans’ Indigenous Botanical Knowledge’, in E. Dyson, M. Hendriks & S. Grant (eds.), *Indigenous People and Mobile Technologies: Routledge Studies in New Media and Cyberculture* (London: Routledge) (2016).
31. L. Hind, G. Jørgensen, L. Aanensen & I. Hansen, ‘The Cultural Impact of Electronic Devices in Reindeer Husbandry’, 9(28) *Bioforsk TEMA* (2014).
32. J. Lamb & M. Belcher, ‘Mapping the Pathways to Survival’, 10(4) *Earth Island Journal* 9 (1995).

Figure 1 An extract of a map depicting walking routes, trees that hold rain water and waterholes, with each hut indicating a day's walk



landmarks and natural resources used currently and in the past, and the traditional names of these features.

These sketch maps were used as guidance for walks around the area with a group of elders and youth. A portable GPS unit was used to record coordinates at the features depicted on the sketch maps, with the use of the GPS facilitated by a researcher at the request of a local NGO working with the community. This enabled the features described by the elders to be plotted on existing maps and Google Earth. In terms of intergenerational knowledge transfer, the process of making the map was valuable, and the map itself can be used as evidence in future tenure challenges regarding the extent of the community's territory and also to illustrate the community's cultural connection with the land.

While mapping methodologies have changed little at the community level over the past decades, the application and implementation of data has significantly changed. With the advent of readily available mobile technology and Internet access, data can be collated at scale. A number of international NGOs now present data collected by indigenous groups and their partner organisations online, as part of larger data sets to illustrate trends in tenure, conservation and extractive industries.

A regional example of this is the Rainforest Foundation UK's Mapping for Rights project, an online platform for indigenous communities in the Congo Basin.³³ The platform brings together the participatory mapping of communities with data from conservation projects, extractive industry concessions, infrastructure and administrative boundaries, to present a holistic illustration of activities in and around indigenous lands. At an international level, the *LandMark Map* project is a large-scale data collation of information and maps regarding land held and used by indigenous peoples and local communities, allowing comparison of national and regional tenure systems, and estimations of proportional tenure systems across large areas or by country.³⁴ Hence, overall there is no doubt that the technology for mapping has become much more accessible and that it has allowed a much greater level of participatory engagement of many communities with the processes of mapping their lands and territories. Notably, such community map data can now be easily collated into larger officially recognised data collections.

Recently developed and more accessible technology regarding mapping, and notably the collection and digi-

33. See <<http://mappingforrights.org>> (last visited 17 January 2018).

34. See <<http://landmarkmap.org>> (last visited 17 January 2018).

tal recording of data, has greatly helped to enhance the value of community mapping. However, caution is still necessary when it comes to the use of these community maps in litigation processes. While, in general, courts have been receiving and accepting these maps as part of the evidence brought by the communities concerned, there is no guarantee of the acceptance of community maps as evidence in court. Courts can easily challenge the veracity of the maps offered by the communities. For example, in land cases in Sarawak in Malaysia, courts have rejected maps developed by the communities for not being prepared by official surveyors.³⁵ This is only an illustration that the legal value of the community maps could always be challenged by national courts when judges revert to more dominant governmental sources for evidence. From this perspective, the use of community mapping as evidence of land rights is always a bit of a gamble, despite the enormous efforts exerted by the communities to provide reliable and accurate maps of their traditional and cultural land usage. In a study of the effects of land litigation on indigenous peoples in Malaysia, Kenya and Paraguay, communities were asked about their views on the impact of these mapping projects, knowing that these might not always lead to judicial remedies.³⁶ What came out strongly from the communities concerned was that despite the legal ‘gamble’ that mapping might constitute since courts might reject the maps, the communities felt empowered by the evidence gathering process put in place for the mapping of their territory.

1.3 Mapping as Capacity Building and Legal Empowerment

The engagement of communities with mapping, to be able to present their historical, cultural, social, religious and spiritual connections with their ancestral territories into a formal legal language (the process of evidence gathering), can also become a contributing factor to the empowerment of the communities. The long-term engagement in litigation on land rights forces the communities to engage in a process of documentation and mapping of their relationship with their territories. As such, litigation results in the documentation of the community history as part of the litigation process. The impact of such mapping goes beyond the courtroom. Participatory mapping can play an important role in supporting local capacity, empowering communities, facilitating communication, breaking down entrenched power structures, and fostering community intergenerational participation.³⁷ In this process, communities have the opportunity to collectively gather evidence about their interaction with their ancestral land, including cul-

tural, social and economic aspects of this interaction, and have this previously oral cultural heritage digitally recorded. It also allows communities to incorporate their customary and traditional approaches to the meaning of land rights and record their traditional land usage based on their own approaches and customs, sometimes challenging official maps. The process of mapping and evidence gathering particularly invites communities to actively engage in a deeply cultural, social and historical analysis of their relationship within their territories.³⁸ This process has an impact on the organisational capacity of the communities to claim back their own land. This community engagement in materially shaping their historical and cultural attachment to their lands can have significant impacts on the intergenerational and gender relationships with the communities. Elders and younger generations get to work together on documents that would support evidence of the community ancestral connection with their lands. A good illustration of such intergenerational impact comes from the situation faced by the Batwa in Uganda.³⁹ The Batwa are currently engaged in a legal battle to reclaim their rights to live on their ancestral territories from where they have been expelled following the creation of national parks. Owing to the historical elements of their case, and since their removal has taken place over a long period, from the 1920s until the 1990s, many of the members of the community had never ‘legally’ lived on their ancestral territories.⁴⁰ Hence, the decision was made to record evidence from the eldest community members who had lived on the lands concerned and had faced the eviction. Based on such testimony, they have created three-dimensional models of both Bwindi and Mgahinga national parks that depict their social, spiritual and cultural sites within the forest. The case is to be examined by the Constitutional Court of Uganda and, whichever way the court may rule, it is certain that the process of recording the elders’ knowledge has been an important factor in supporting intergenerational learning about the use of the forest and its importance in Batwa’s cosmology.⁴¹ Many of these elders will likely pass away before any decision is reached by the legal system, but their involvement has played a significant role in reviving and recording the Batwa’s traditional usage of the forests. This illustration was also evidenced in a multi-country research project on the impact of litigation conducted by the Open Society Justice Initiative, which demonstrated the positive impact that documentation of land custom-

35. See M. Cooke, ‘Maps and Counter-Maps: Globalised Imaginings and Local Realities of Sarawak’s Plantation Agriculture’, 34(2) *Journal of Southeast Asian Studies* 265-84 (2003); Aiken & Leigh (2011), above n. 9, at 825-75.

36. J. Gilbert, *Strategic Litigation Impacts: Indigenous Peoples’ Land Rights* (Open Society Justice Initiative, April 2017), available at: <<https://www.opensocietyfoundations.org/reports/strategic-litigation-impacts-indigenous-peoples-land-rights>> (last visited 17 January 2018)

37. See *Ibid.*

38. See I. Hirt, ‘Mapping Dreams/Dreaming Maps: Bridging Indigenous and Western Geographical Knowledge’, 47(2) *Cartographica: The International Journal for Geographic Information and Geovisualization* 105-20 (2012).

39. See J. Lewis, *The Batwa Pygmies of the Great Lakes Region* (London: Minority Rights Group) (2000); J. Woodburn, ‘Indigenous Discrimination: The Ideological Basis for Local Discrimination Against Hunter-Gatherer Minorities in Sub-Saharan Africa’, 20(2) *Ethical and Racial Studies* 345-61 (1997).

40. The Batwa’s ancestral territory covers several areas of the Bwindi Impenetrable National Park, Mgahinga Gorilla National Park and Echuya Central Forest Reserve.

41. To read more on this case, see Gilbert (2017), above n. 9, at 657.

ary usage had on intergenerational and gender relationships within the communities concerned.⁴² The processes of evidence gathering also had an impact on the role and place of women, especially in patriarchal societies, providing a space for articulating and recording their connection with the territories concerned. These processes of evidence gathering and mapping increase and support not only the communities' own sense of historical identity, but also their legal empowerment. Mapping can greatly contribute to the overall sense of legal empowerment and capacity building of the communities. The whole process can greatly contribute to cultural regeneration, to serve either as evidence to the court proceedings or as a platform for the community to record their land usage, the importance of sites in terms of cultural heritage and spirituality. This increased social cohesion also has effects to increase political mobilisation. Indigenous groups are frequently considered socially and politically subordinate to majority groups and generally have low levels of political participation and influence. In this regard, mapping may also be considered a form of participation and 'an alternative to "orthodox" political participation'.⁴³ Arguably, litigation, especially by class or group, allows plaintiffs to meaningfully participate in decision-making within democratic frameworks,⁴⁴ therefore exercising self-determination through the courts. From this perspective, litigation can provide a platform to strengthen a form of democratic participation for indigenous peoples who usually feel very marginalised and discriminated by the public authorities of the state. The maps used by the communities invite these legal institutions to accept and examine indigenous peoples' own approaches to the use of the land and territories.

Engaging with mapping requires efficient decision-making structures within a community. Hence, the engagement with mapping can also have an impact on the communities' decision-making processes. Traditional processes may face pressure to adjust to the very demanding time-bound process of litigation.⁴⁵ However, while there is no doubt that litigation can bring changes and pressures upon the whole and individual members of communities, the overall process of litigation can also be one that strengthens community cohesion, representation, identity, pride and confidence. It is important to recall that evidence and knowledge of procedures must be complemented by confidence, flow of information and social relations both within and between groups in order to bring about a successful land claim.⁴⁶ Mapping can play an important role in this context. Most, if not all, indigenous communities experience a level of continuing erosion of traditional values, livelihoods and cul-

tural practices, not to mention access to land and resources. Processes such as mapping, where it is community-led and participatory, can be a source of increasing cohesion within communities experiencing these cultural and social fractures. Furthermore, creation and ownership of a map itself can be a point of pride for the community, and increase respect and serve as a negotiating tool with local authorities, private entities and international organisations, through the documentation of information and creation of a tangible group output from the community. The mapping itself may become a focal point for discussion, and often in cases dealing with land and natural resources, a vehicle to motivate and even carry the transmission of traditional knowledge through evidence collection activities, peaking interest and cultural pride. From this perspective, it is important to look at mapping outside its purely procedural and legal impact.

2 Conclusion

Partly because of the high burden of proof put on indigenous communities to prove their 'entitlement' to their ancestral territories, evidence gathering and mapping have become central elements of any adjudication of indigenous land claim. The use of participatory maps has become viewed as a panacea to record traditional and customary land usage. This mapping is important as part of the adjudication effort, but its impact goes well beyond the courtroom. As noted in this article, there is no guarantee and evidence that courts and judges would accept community maps as evidence. However, as highlighted, evidence gathering and documenting customary tenure is not only important to bring evidence to the courts, but also plays a significant role in community empowerment and historical and cultural recordings. Evidence gathering and the documentation of customary land usage can create a powerful process through which communities improve their awareness of land and resource management. It can also contribute to the development of new pathways for community resource management and encourage environmental conservation. Mapping can contribute to legal empowerment, not only through evidence collection but also through the development of confidence, transmission of traditional knowledge and increased social cohesion within indigenous communities.

However, it should also be kept in mind that litigation imposed on indigenous peoples is often the result of the state's failure to protect or recognise the land rights and self-determination of indigenous peoples. Hence, mapping and evidence gathering alone might not significantly challenge the dominant formalistic tone of the legal process. But what appears from the connection between the onerous burden of proof and community mapping is that long-term litigation on land rights forces the communities to engage in a process of documenting their relationship with their territories. As such, the litigation

42. Gilbert (2017), above n. 36.

43. J. Grossman & A. Sarat, 'Litigation in the Federal Courts: A Comparative Perspective', 9(2) *Law & Society Review* 321-46 (1975).

44. S. Lawrence, 'Justice, Democracy, Litigation, and Political Participation', 72(3) *Social Science Quarterly* 464-77 (September 1991).

45. Gilbert (2017), above n. 36.

46. L. Cotula & P. Mathieu (eds.), *Legal Empower in Practice: Using Legal Tools To Secure Land Rights In Africa* (London: IIED) (2008).

process results in the documentation of the community history during its course. It becomes a sizeable contributing factor to support the cultural regeneration, inter-generational transmission of traditional knowledge and cultural pride of the communities. Furthermore, maps can be an important negotiation tool between indigenous communities and other land claimants or authorities, as a tangible group output from the community and a demonstration of confidence and cohesion.

This article does not aim to promote the value of maps as a ready-made solution to prove land rights for communities. Nor does it argue that mapping is a simple or linear process. Rather, the goal is to contribute to a larger debate on the values and potential pitfalls of 'mapping for rights', bearing in mind that community mapping has emerged as part of a demand for 'formal' evidence of land usage by the legal system. From this perspective, there is some risk of further formalising boundaries and land usages, coupled with the risk of hastening inevitable economic interests in mapped natural resources. Another important element that merits further investigation concerns the expectation that the community should describe their usage of land. This may risk divulging traditional knowledge not typically shared with the outside world, for example cultural taboos or community resources. And lastly, but importantly in the context of this special edition, one larger question that requires further research and analysis is the extent to which courts and judges are able to receive and accept community maps as legal evidence. Overall, mapping and evidence gathering on land rights is part of a very complex and ongoing multifaceted process rather than a single linear one with a clear, obtainable goal that can be captured on a map. Historically, maps were used to promote the widespread assumption that indigenous territories were in fact open unclaimed lands belonging to the state. From an instrument of colonisation and land alienation, maps are becoming a more supportive instrument to reclaim land seized by those administrative powers. There is still a long way to go before evidence of indigenous land rights, through corrected maps and oral histories, are rightfully recognised and acknowledged. Moreover, courts must adapt to recognise land rights in forms that are not grounded in the colonial legacies and agricultural livelihoods that have shaped many boundaries and land laws. However, by pushing indigenous peoples to prove their land rights, in their own way the courts are motivating a process that could lead to redesigning the old colonial maps to restore indigenous territories.