

Community-based mapping and monitoring of traditional knowledge and languages

Indigenous peoples' experiences needs and challenges

RUTU
Foundation



Forest Peoples
Programme

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Marauny Na'na Emandobo

Lokono Shikwabana

("Marowijne – our territory")

Introduction



Traditional use and management of
the Lower Marowijne area by the Kaliña and Lokono

Overview presentation:

- **Data on indigenous and local communities well-being**
 - Advances in land and resource data gathering and monitoring
 - Examples of community based mapping
 - Challenges encountered
- **The need for community based language mapping**
 - Example from Suriname
 - Why indigenous languages and knowledge matter

A tool for mapping and monitoring indigenous knowledge and languages?

Data on Indigenous Peoples
and
Local Communities' (IPLCs)
well-being



Background:

- IPLCs and their situations and contributions and knowledge are increasingly recognised in the **Global Change Agendas**
- But: these often lack information on IPLCs
 - IPLCs have been largely invisible in maps and in global data.
 - **Lack of info on IPLCS in national statistics**
- Challenges and goal: bringing their stories together and make the situation and visible to the world
- Need for comparability between various data being gathered
 - move beyond 'case studies.

Background

- IPLCs have recognised that they need to lead on this themselves and do the work → **Community-based data collection and monitoring and developing indicators for indigenous well-being**
- Information is serving many purposes and deployed at various levels

“We ourselves have told them the status of IPs in the countries needs to be included. The states do not have the data, nor the capacity to gather that data. So the solution is that communities will gather the data themselves.” - Joji Cariño (member of IPMG).

Advances in land and resource data gathering and monitoring & Examples of community based mapping

- Monitoring based on traditional knowledge with the use of ‘new technologies’
- For instance, GIS/GPS, satellite imagery, or drone images
- Helps to support communities to better understand and document change and impacts to their territories
- visualise impacts of (illegal) activities like mining, logging, land degradation or land use change, land grabbing and other impacts,
- not only for external audiences but also for raising awareness within communities.

Territorial mapping by Wapichan people, Guyana



ECO-CULTURAL MAPPING (Eco-cultural calendar) Kenya



Indonesia: mapping customary lands and palm oil concessions



Kenabek Hulu Customary Village lands and Certificated Oil Palm Hak Guna Usaha (HGU, Right to Cultivate), Golden Agri Resources

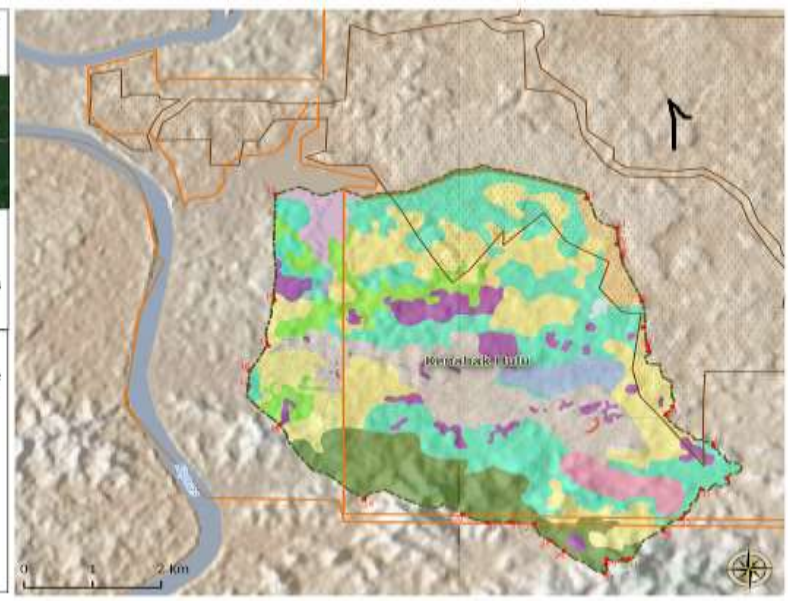


Legend

- River Kapuas
- HGU Oil Palm Certificate
- Kenabek Boundary Waypoints
- Kenabek Boundary
- Oilpalm Concession 2010

Prodesoft 27/07/2015
 Map Document: FPP012_Kenabek
 Datum: WGS 84
 Data Sources: Google Earth, Rosa Shuttle Radar Topography Mission, WAJH hand-drd GPS Networks

No	Simbol	Pembuatan Lahan	Luas (Ha)
1		Bekas Mula	476,47
2		Bekas Tisa	188,77
3		Dusun	435,24
4		Bekas Campuras	775,02
5		lahan Karet	352,06
6		lahan hlm Sisa	0,83
7		lelebak	196,74
8		lahan Sawit	53,33
9		lahan Tebuca	66,62
10		Pemukiman	2,46
11		Pertanian lahan kering	6,61
12		Rawa	78,29
13		Sawah/tebasan	86,25
14		Sawah	6,92
		Jumlah	3103,31



Community-Based Monitoring Pilots in Cameroon



Objectives:

- Monitor agro-industrial concessions, logging, mining
- Increase access and usage rights for communities in protected areas

Data collection: Community monitors use smartphones to document issues (photo, GPS point, time, notes...)

Data aggregation: Community associations use laptops to aggregate the monitoring findings from the smartphones



Monitoring maps

The screenshot displays the MapFilter web application interface. The browser address bar shows the URL `192.168.10.168:3000/mapfilter/?locale=fr`. The interface is divided into several sections:

- Dates:** Displays the period from 10 avr. 2017 to 02 sept. 2017, with a "Choisissez Les Dates" option.
- Activités:** A list of activity categories with checkboxes, including Cases, Reunionscommunautaires, Accaparement, Pollution, Reunionsautorites, Ecogardes, Animaux, Delimitation, and Bantous.
- People:** A list of names with checkboxes, including Boumakpode, Okani, Charles, Zamtom, and Leonard.

The main map area shows a geographical region with various administrative boundaries and labels. Key locations and features include:

- Geographic Labels:** Boumba, Libongo, Mouloundou, Djombi-Bolo, and Fometal Boubou 146B.
- Administrative Regions:** ZIGGC7, ZIGGC8, ZIGGC9, SAB, and PN_LDB.
- Natural Features:** Boumba Bek National Park, Parc National de Lobéke, and Lobéke National Park.
- Data Points:** Several colored markers (blue, green, brown) are placed on the map, representing specific monitoring locations or events.
- Map Controls:** A zoom control (+/-) is visible in the top left, and a layer control icon is in the top right.



Some of the gains and benefits:

- Empowering process which promotes community involvement and sense of community ownership
- Culturally appropriate approaches and tools better reflect indigenous world vision than 'western maps'.
- Data and outcome products are useful for communities' own land use and governance planning, tenure advocacy and as evidence for their territorial claims
- Mapping and monitoring can contribute to inter-generational knowledge transmission, but also to public education or the teaching of outsiders.

Some of the challenges:

- Recording the ‘what, where, when’, involves wide community participation but in systematizing the data, and generation of monitoring reports, participation is usually more limited as often computers and specialised knowledge are used.
- Many tools that work with questionnaires, like GeoODK collect, are difficult or impossible to use for people who are not literate
- Challenge of need to be able to enter information offline.
- Many technologies require electricity - not available in all communities.
- Technology could undermine Traditional Knowledge and create a disconnect.
- It is challenging to connect up different technologies.
- Introducing technology in communities can increase imbalances: e.g. education levels, gender, between generations.

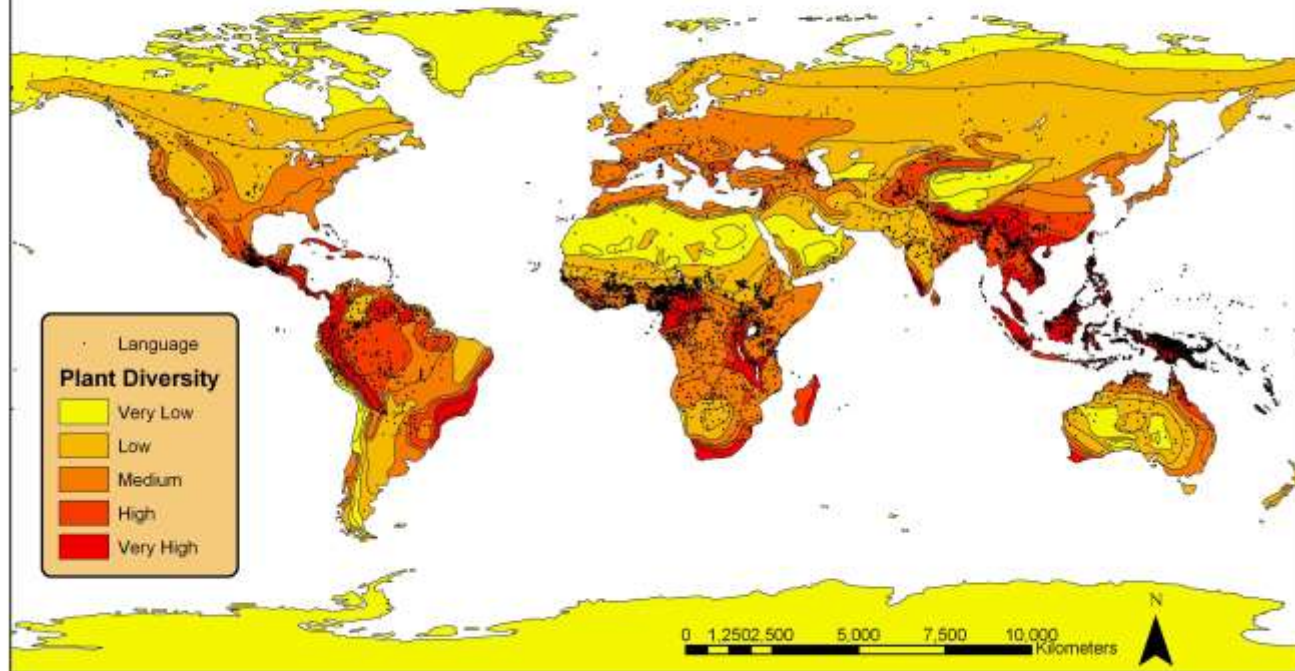
Some of the needs and wishes:

- Be able to record and reflect data that provides insight in trends and changes over time (for example, ammoniac content of water) and collecting data on issues not necessarily linked to a part of the territory (e.g. on language or knowledge status).
- The applications currently are very focussed on spatial information.

The need for community based language mapping



Plant Diversity and Language Distribution



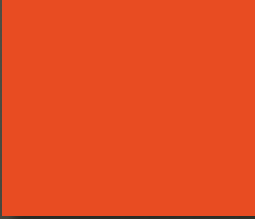
Source: Stepp, J.R., et al. 2004. Development of a GIS for Global Biocultural Diversity. *Policy Matters* 13: 267-271.



knowledge = language



Why do indigenous knowledge and language
matter?



To adapt to changes





Water



Transportation





Housing





Food

To heal indigenous
youth



To preserve species, foods, medicine



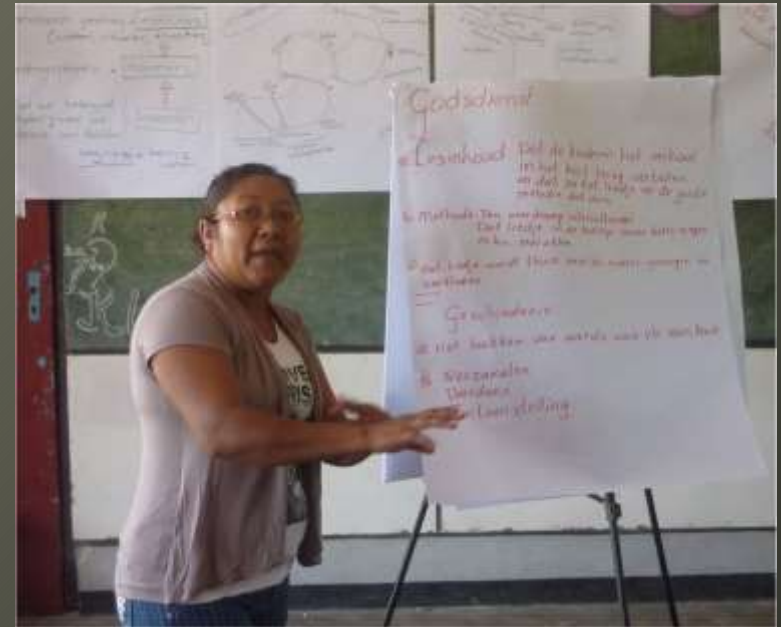
What we did in Suriname



Indigenous Education Festival



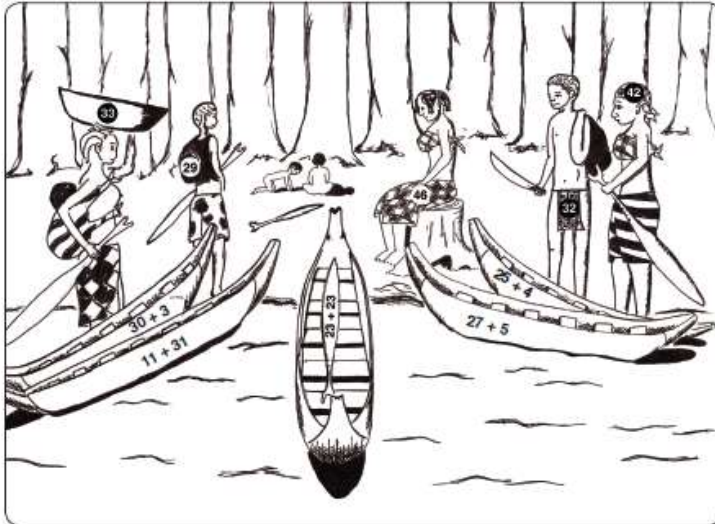
Training Teachers in Culturally Appropriate Education



Bilingual Culturally Relevant Education Material

24. Van wie is de boot?
Noky kurijary'ko moro nan?

Maak de sommen en trek een lijn
Morokon tykamyn ikako irombo amy
ikaka'po ikako



1 een
wan



2 twee
tu



3 drie
di



4 vier
fo



5 vijf
feif



Language Survey

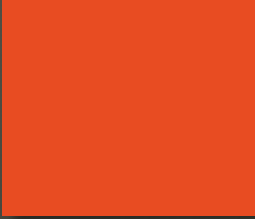


Constraints

- Communities unable to analyse data themselves
- Collaboration with university means risk losing control, how will data be used?

Question:

can we adapt and use tools for mapping and monitoring lands and resources for measuring trends in language and traditional knowledge?



Goals of tool:

- For internal use: monitoring well-being of people and environment
- For external use: advocating for indigenous rights at national and international level

Tools must be:

- A. Accessible for communities who don't all have access to higher education, internet, electricity
- B. Replicable: able to measure trends over time
- C. Compatible and comparable
- D. Affordable: available at low cost (open source, free, or bespoke tools?)

Thank you!



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