Community-based monitoring and information systems as an emerging tool for management of landscapes and complement national and global data

IPSI SIDE EVENT

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Outline

- What is CBMIS and related toolkit?
- What is the aim of using it?
- How has it been used?
- Some outcomes
- Some thoughts on today's topic

What is CBMIS?

- Initiatives managed and controlled by indigenous peoples and local communities to monitor their community's well-being and the state of their territories and natural resources
  - e.g. includes monitoring the health of biodiversity, resilience of traditional knowledge, climate change impacts, effects of unsustainable/illegal activities and the implementation of international agreements such as the CBD at the national or local level

What is CBMIS?

- Complementarity of traditional knowledge and innovative tools and approach, involving elders and youth

- It is not a totally new approach but a new element is the fact that many IPLCs nowadays often use and adapt new technologies, and their work is becoming more visible because of the use of the internet and social media

Digital Map Editor

What is the CBMIS toolkit?

- CBMIS is very diverse and can range from technically simple and basic to very technologically advanced approaches.

- Methodologies and processes include community mapping, resource inventories, eco/agri-calendars and biodiversity registers.

ODK Collect Mobile tool

What is the CBMIS toolkit?

- The tools being used include questionnaires and forms (hardcopies), cameras, GPS, participatory video, smartphones and tablets, community radio, measurement kits (e.g. for water and soil samples) and testimonies.

- Many communities work with selected software to link their data to maps and computer databases (e.g. EpiCollect, Sapelli, ODK, GIS Cloud, OpenStreetMap).
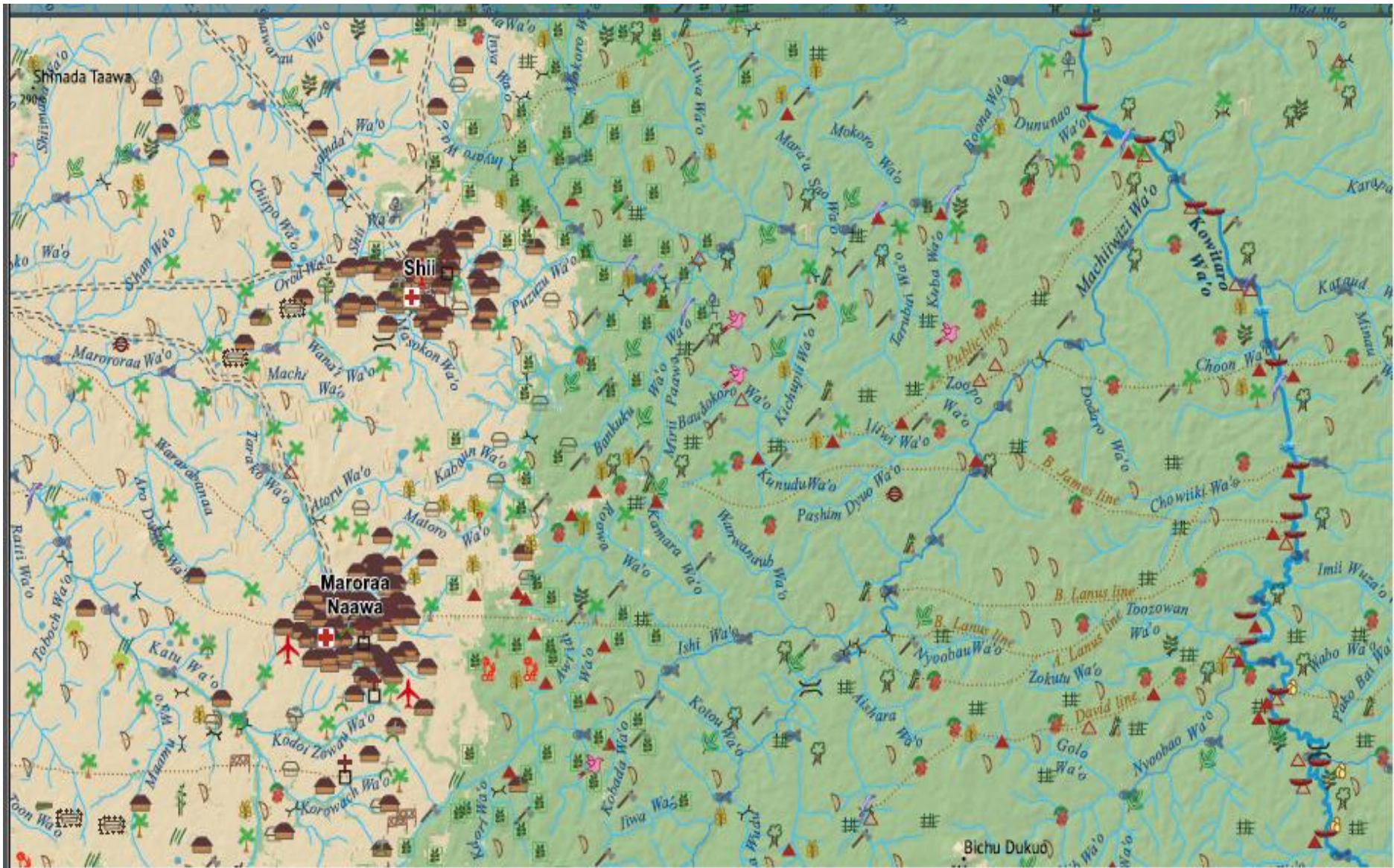
What is the aim of using it?

- (Self) Empowerment of communities to carry out own monitoring and manage data and information about key issues identified by them
- Track regularly and consistently what happens in a certain locality/territory
- Present data, maps, reports to national agencies for action and advocacy (including rights recognition)
- Contribute to (sub)national and global assessments
- Contribute to monitoring implementation of international commitments

Wapichan People

Documenting customary use and law

Territory of the Wapichan people in Guyana: a map of land use and occupation

Resource Use documentation

BAOKOPA'O WA DI'ITINPAN WADAUNIINAO ATI'O NII

Kaimanamana'o, wa zaamatapan, wa di'itapan na'apamnii wa sha'apatan Wapichan wiizi Guyana'ao raza

THINKING TOGETHER FOR THOSE COMING BEHIND US

An outline plan for the care of Wapichan territory in Guyana

A document of the
Indigenous peoples of the South Rupununi

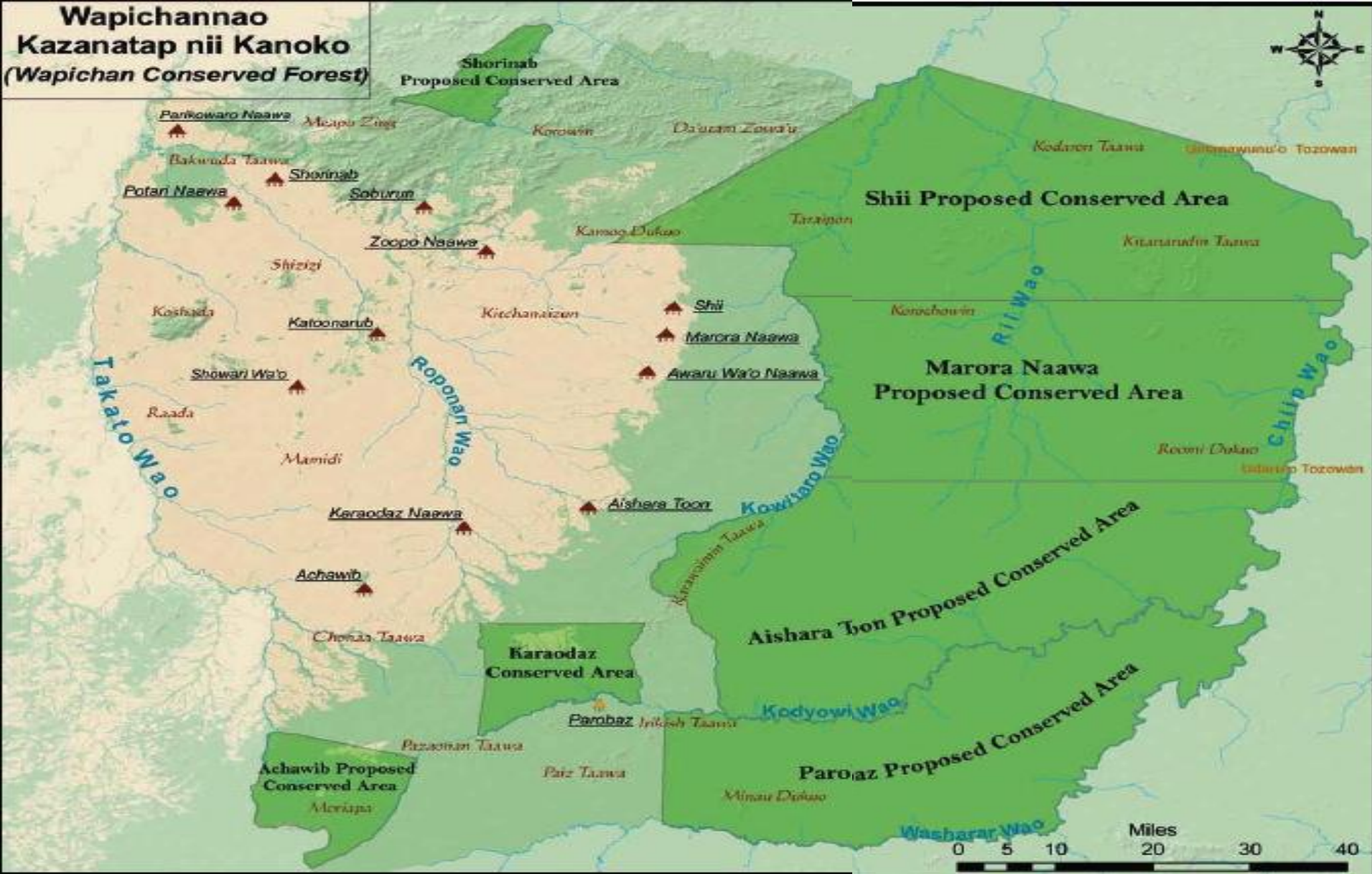SCPDA
South Central People's Development Association

Wapichan conserved forest

Piloting UAVs

Monitoring mining and logging

Data and info system (pilot 2015-2017)

ODK Collect Mobile Tool
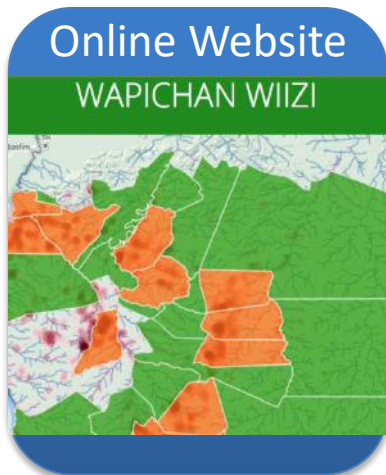
- Can collect information about the land
- Can take photos
- Can accurately describe and record exactly where the [information](#) was collected

Internet Data Store

- Can store all the information collected on the phones

Local Hub

Digital Map Editor

- Can download from the internet data store
- Can choose what is private for internal village planning and what should be made public.
- [Can prepare and print maps and reports](#) to explain issues to villagers and government
- Can update the website map

Online Website

WAPICHAN WIIZI

- Can show the public map data in a clear and interesting way
- Can show photos, stories, video etc.
- Can show public and media and link to them

http://wapichanao.communitylands.org/index.html

Major advances were made by Wapichan villages in 2014-17 to develop and use their own community- driven forest and land-use monitoring system.
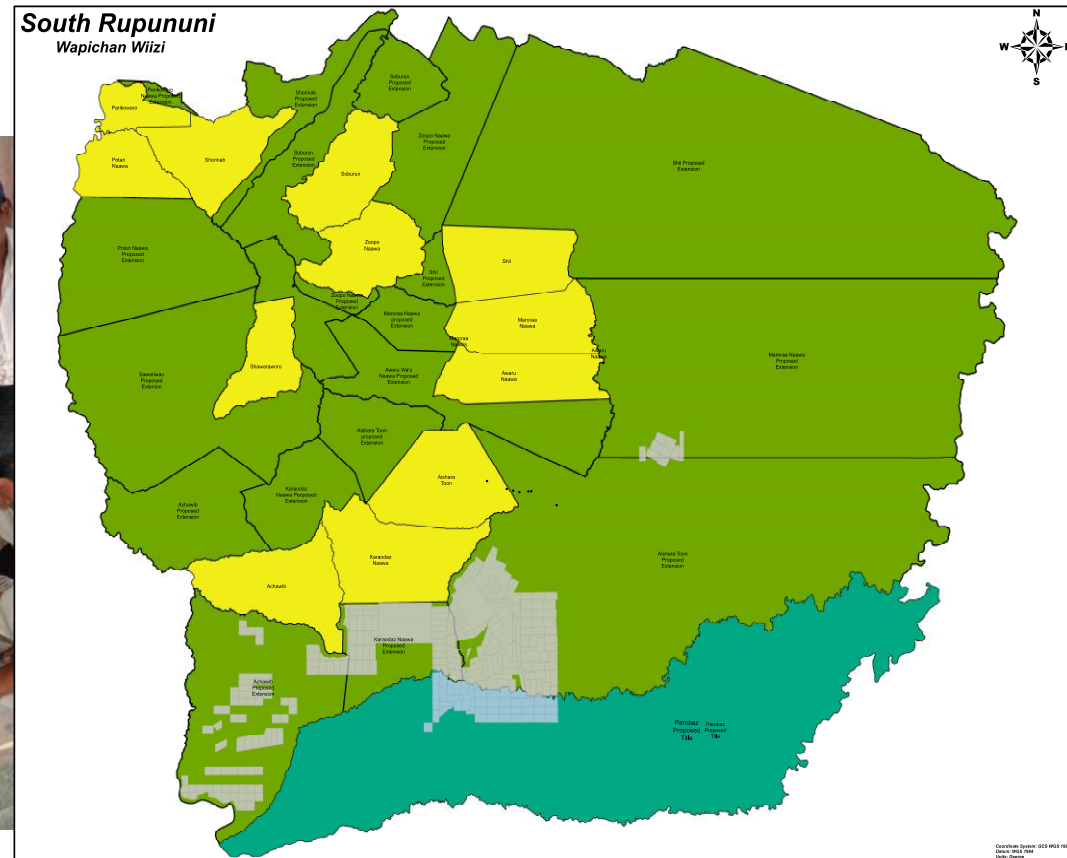
Riiwao
23rd Jul 2016

Sowan wao (Wakadanawa)
15th Mar 2016

Sowan wao (Wakadanawa)
15th Mar 2016

Dadabwao wako danaa
13th Mar 2016

Bokobokoin daap
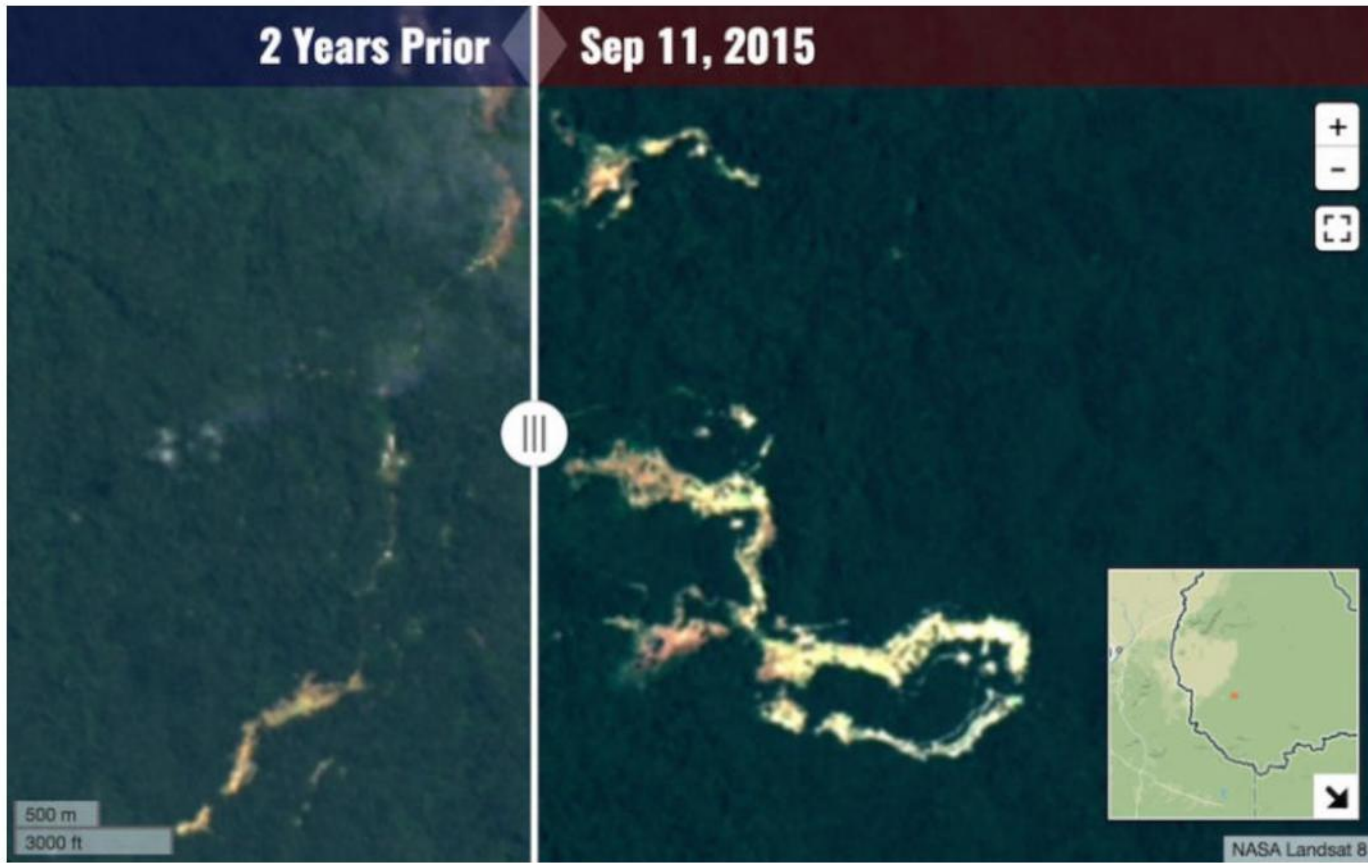27th Feb 2016

Sowan wao (Wakadanawa)
15th Mar 2016

Brazilian miners working out a creek bed, nothing but grass is left growing.

2 Years Prior | Sep 11, 2015

500 m
3000 ft

NASA Landsat 8

Mining Impacts Timeline

This map shows a timeline of destruction caused by mining in the Marudi area between 2013 and 2015. You can select satellite images from different dates and compare them side-by-side to see how the mining has increased over time. Click to see the map.

Some outcomes

- **Local**
  - Local knowledge base and capacity for territorial resource management and community development has been strengthened
  - Community maps are used to demonstrate customary sustainable use, protect areas from external unsustainable activities, secure land tenure and develop long-term management plans, including strengthening local economies
  - Unsustainable activities stopped in a number of cases

Some outcomes

- **National**: still limited but positive cases emerging:
  - Guyana: negotiation with government on recognition of land/territorial tenure and influence on external threats.
  - Philippines: NBSAP updating process was based on collaboration and consultation with local organisations.
  - Thailand: during 2014-2015 significant progress has been made in the implementation of a Cabinet Resolution in support of Karen Way of Life and rotational farming was declared a national cultural heritage

Some outcomes

- **International**
  - Strengthening of emerging global CBMIS network
  - Recognition in COP12 Decisions, WG8(j) and SBSTTA documents about relevance to CBD TK-CSU Indicators and 2011-2020 Strategic Plan for Biodiversity
  - Support from academic studies (e.g. Danielson 2014)
  - Started to be reflected in GBO4
  - Acknowledgement and discussion in IPBES
  - Main input into Local Biodiversity Outlooks, launched at COP13 (2016)

LOCAL BIODIVERSITY OUTLOOKS

Indigenous Peoples' and Local Communities'
Contributions to the Implementation of the
Strategic Plan for Biodiversity 2011-2020

A complement to the fourth edition of the Global Biodiversity Outlook
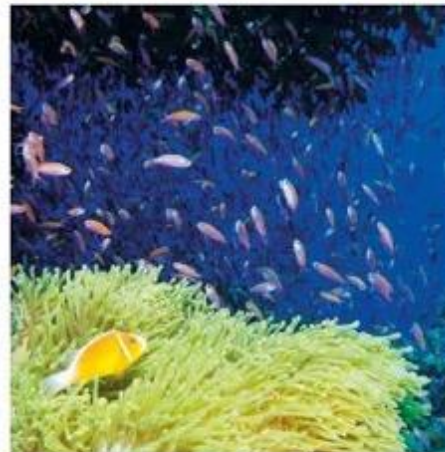
CONTENTS

FOREWORDS

EXECUTIVE SUMMARY

PART I: INTRODUCTION

PART II: Indigenous peoples' and local communities' contributions and experiences towards achieving the Aichi Biodiversity Targets

Targets 1-20

PART III: CONCLUSION AND RECOMMENDATIONS

South Central Peoples' Development Association (SCPDA)[iv]

The Wapichan have organised more than 80 community consultations, workshops and public meetings in order to draw up and agree their innovative territorial plan. Courtesy SCPDA

The Wapichan people live in the South Rupununi District of Guyana. The "*Wapichan wiizi*" (territory) is home to many animals, reptiles, plants, insects, birds, fishes and other water creatures, many of which are globally rare or endangered.[vii] The Wapichan territory contains many important cultural heritage sites for the communities, where stone axes, arrow heads, beads, pottery and rock carvings and burial grounds are found. The Wapichan have compiled a plan for the sustainable community-based use and development of their ancestral territory, which covers about 2.8 million ha, for the benefit of present and future generations.[141] The plan describes the multiple services, values and meanings that the territory provides. For instance, respect for spirit beings and their homes is essential for the wellbeing of the communities and the health and abundance of the fishes and game. The territorial management plan sets out common principles, goals, and customary laws on the responsible use of the land, forest, mountain, grassland and wetland ecosystems. It includes more than one hundred inter-community agreements on collective actions for sustainable land use, customary sharing of resources, community development and livelihood initiatives. It also details hundreds of local wildlife sites for community protection, including proposals to establish an extensive 1.4 million ha Wapichan Conserved Forest covering old-growth rainforest in the eastern part of the territory.

Securing the Wapichan territory by obtaining its legal recognition is a major goal for the Wapichan and a prerequisite for fully realising and implementing their plans. The existing land titles are fragmented and do not cover the full extent of the areas traditionally used and occupied by the Wapichan people. Further the Wapichan territory is facing serious external pressures from illegal mining, cattle rustling, logging and encroachment from commercial hunting. To address these, the Wapichan have developed a community-based system to detect and document such pressures as well as to monitor ecosystem health (for example water quality) and land use change.[142,143]

The Wapichan have initiated active dialogue with relevant government departments, agencies and commissions to explain their plans for continued community-based care of their ancestral areas. The Wapichan use their own maps and photographic and geo-referenced information, and data on traditional use of the land, to support their land claims and to point out where the tenure gaps are. These initiatives have led to formal talks between the communities and the government about actions to secure their land and forests legally, and to prevent and suspend industrial logging and mining concessions on Wapichan land.

lvi *SCPDA is a community-based development organisation with a mandate to reduce poverty and to empower and uplift the lives of the people of South and South Central Rupununi, Guyana. SCPDA is dedicated to securing and sustainably managing Wapichan traditional lands in Guyana and improving the livelihoods of the people in these communities.*

lvii *E.g. kitanaaru (jaguar), saoro (giant river otter), wichaa waru (bush dog), crested eagle, kawanaru (cock-of-the-rock), udaru'o kokoi (harpy eagle) and dyuwudan uzu (red siskin)*

Community mapping to address land use change and security of land tenure

Participatory community mapping based on traditional knowledge and using both traditional and modern mapping technologies has emerged as a useful and powerful tool during the past two decades (see Target 19 for examples). Hundreds of communities have started to use this tool and efforts are under way to establish collaborative networks at various levels. In August 2013, 110 representatives of indigenous peoples, community mapping experts, members of support NGOs and academia from 17 countries gathered together in the traditional territory of the Batak at Lake Toba in Indonesia to share and learn from their diverse experiences.[183] Whilst acknowledging some potential risks, the participants agreed that community maps can be used as part of community-based monitoring and information systems for a wide range of purposes, including:

- The identification of diverse forms of land use, and monitoring of changes in land and resource use;

- Tracking the extent of use or decline of traditional knowledge, indigenous languages and customary governance;

- Monitoring of biodiversity, ecosystem integrity and climate change impacts;

- Development of territorial management plans, including innovative zoning that contributes directly to conservation and sustainable use (see for example Figure 18.5 and Box 14.1);

- As a tool for self-determined development and in advocacy for policy reforms.

One of the challenges being addressed in relation to monitoring of land-use change and secure land tenure is how better to manage complementarity and inter-operability between community-generated maps and larger scale maps produced by national or global agencies. Meanwhile, community participatory mapping is set to continue to evolve to serve community needs.
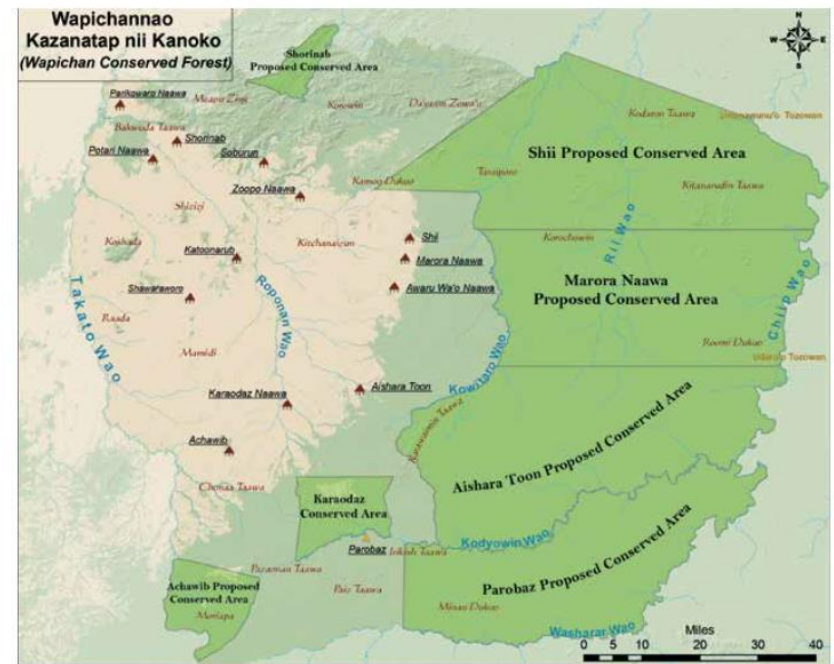

Figure 18.5: Wapichannao Kazanatap nii Kanoko: Wapichan Conserved Forests being proposed as part of their territorial management plan. Wapichan Conserved forests (covering approximately 1.4 million ha) being proposed as part of the Wapichan territorial management plan, Guyana. Courtesy: South Central People's Development Association (SCPDA) and South and South Central Rupununi District Toshaos Council. Ron James, SRDC-SCPDA

LBO website

Home page

The home page features an introduction statement on the project.

There are two clear markers that will navigate users to either more information on the project background or to the case studies section.

The homepage will also feature a map pin pointing the case studies, the pins when clicked show a pop up with more information and a link.

The homepage will also have a latest news section as well as a promotion to download the PDF version of the report.
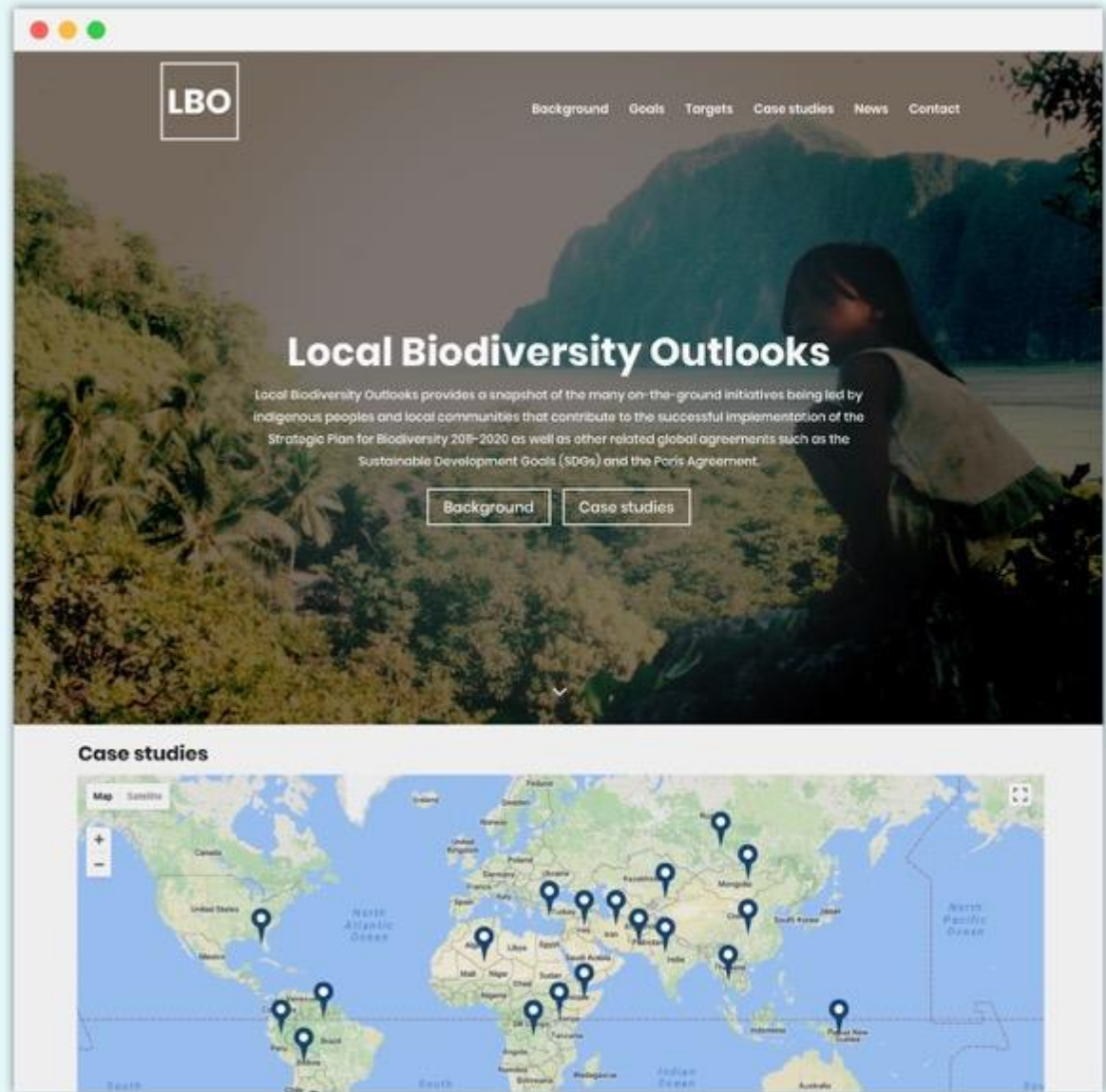
Landscape approach, knowledge-policy interface, livelihoods and conservation

- Landscape approach useful if truly holistic; when in IPLCs' lands it must be defined and governed by them, with support by others
- Diverse knowledge systems contribute to plurality of approaches and solutions and better place-relevant policy making
- CBMIS can generate useful data and information for informed decision-making at local, national, regional and global level, e.g.:
  - For communities' assessments and decision-making on sustainable local economies and community conservation
  - Contribute to national monitoring, assessments, NBSAPs and national reports
  - Contribute to monitoring implementation of 2011-2020 Strategic Plan and highlight contribution of IPLCs (LBO)
  - Feed LBO key messages into the post-2020 global biodiversity agenda
  - Potential contribution in other global processes, e.g. IPBES, UNFCCC, SDGs, UN Data Revolution
  - This will require support for CBMIS as complementary to national statistics and global monitoring systems and collaboration with relevant institutions (including IPSI and IPBES)

Thank you!