# ENVISIONING A CLIMATE CHANGE-PROOF FUTURE

## All griefs with bread are less

Autonomous adaptation strategies focus on improving food and nutrition security as well livelihoods practice through initiatives ranging from changes in crop-livestock systems, fishing times and storage of food.

## It all adds up

Several autonomous adaptation measures are oriented to income diversification, as communities move away from reliance on resources that are being threatened by climate change impacts and towards non-natural resource-based jobs and remittances.

## Harnessing traditional knowledge for climate resilience

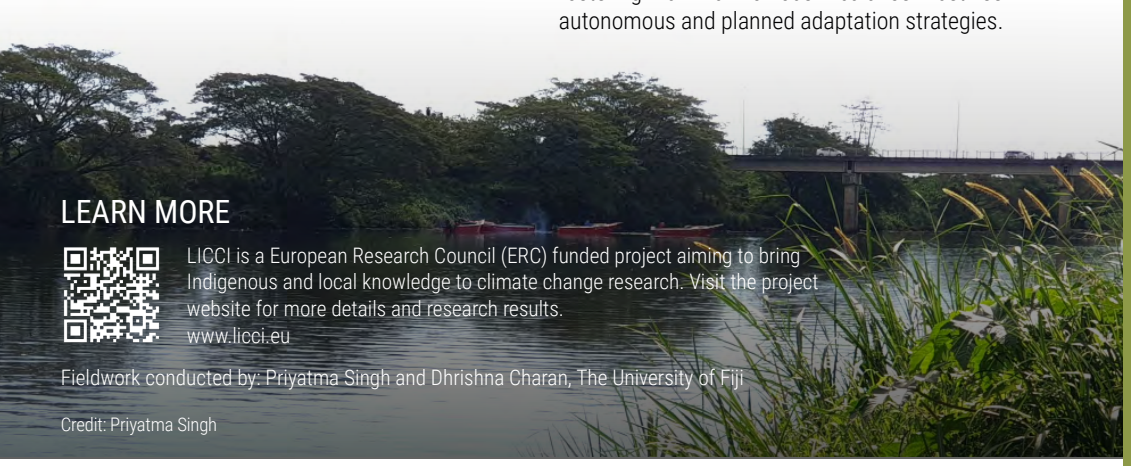
Traditional knowledge and practices hold the potential to enhance resilience, yet there are concerns about their potential loss in areas like cultivation, pest management, food preservation, and fish harvesting. Globalization disrupts intergenerational transmission and may be exacerbating this threat.

## AN OPEN CALL FOR COLLABORATION

Village leaders and community representatives are urging for greater integration and inclusion in decision-making processes that affect their livelihoods. Emphasizing a participatory approach is vital to acknowledge the traditional knowledge and local relationships that underpin community-level adaptation strategies.

## ADAPTATION AND RESILIENCE TAKE LOCAL ROOTS

The formulation of sub-national adaptation plans offers practical approaches to assess local responses to climate change and address the opportunities and challenges they face. These plans play a crucial role in integrating adaptive measures into local planning, bridging the gap between local and national adaptation efforts. Moreover, they encourage communities to embrace multi-scalar adaptation measures, fostering a harmonious balance between autonomous and planned adaptation strategies.



## LEARN MORE

LICCI is a European Research Council (ERC) funded project aiming to bring Indigenous and local knowledge to climate change research. Visit the project website for more details and research results.
www.licci.eu

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Credit: Priyatma Singh


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LICCI | Local Indicators of Climate Change Impacts

# iTaukei Coastal Community
*Ba district, Fiji*

The iTaukei people of Votua, Nawaqarua, and Natutu in Ba district share a deep connection with the river and ocean ecosystem. Situated along the Ba River that connects to the seas of the Yasawa Islands –an archipelago of about 20 volcanic islands off the coast of Western Viti Levu,– these fishing villages face climate-related challenges: cyclones, droughts, floods, and coastal erosion.

Credit: Na Teci Roaroa

## iTAUKEI PEOPLE

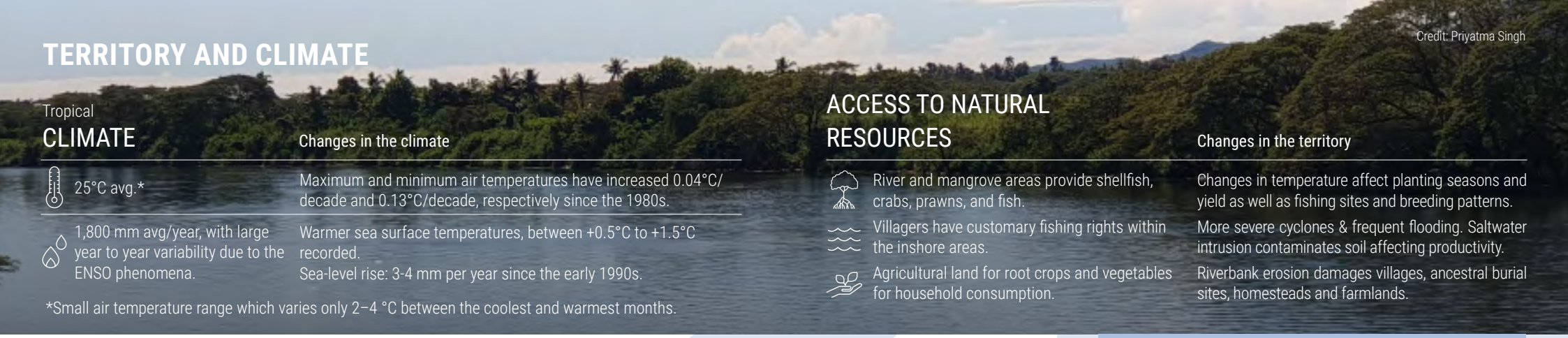
iTaukei people account for more than half of the total population of Fiji. The studied villages are located on the drier leeward side of the main Island of Viti-Levu with a distinct hot and wet season and a cool and dry season.


## ACTIVITIES

Fishing and reef gleaning: Coral trouts & groupers in the open ocean (men). Invertebrates & fish up to the coral reefs (women).

Subsistence farming: Yam dalo, cassava. Pig, cattle and goat.

Mixed economies: Handicrafts and small businesses (women). Fish catch selling in local markets (men).



Credit: Priyatma Singh

# TERRITORY AND CLIMATE

## CLIMATE

Tropical

| | Changes in the climate |
|---|---|
| 25°C avg.* | Maximum and minimum air temperatures have increased 0.04°C/decade and 0.13°C/decade, respectively since the 1980s. |
| 1,800 mm avg/year, with large year to year variability due to the ENSO phenomena. | Warmer sea surface temperatures, between +0.5°C to +1.5°C recorded.<br>Sea-level rise: 3-4 mm per year since the early 1990s. |

*Small air temperature range which varies only 2–4 °C between the coolest and warmest months.

## ACCESS TO NATURAL RESOURCES

| | Changes in the territory |
|---|---|
| River and mangrove areas provide shellfish, crabs, prawns, and fish. | Changes in temperature affect planting seasons and yield as well as fishing sites and breeding patterns. |
| Villagers have customary fishing rights within the inshore areas. | More severe cyclones & frequent flooding. Saltwater intrusion contaminates soil affecting productivity. |
| Agricultural land for root crops and vegetables for household consumption. | Riverbank erosion damages villages, ancestral burial sites, homesteads and farmlands. |

# VOICES OF LOCAL KNOWLEDGE

The iTaukei people have rich, temporal, place-based knowledge about their environment. This knowledge allows them to observe change and deduce drivers of these changes. Their way of talking about changes reflects their understanding of the processes leading to change.

Credit: Priyatma Singh

*"We can not monitor 24-7 so pouching and overfishing is happening in our ocean space."*

*"Black Sand Mining is happening at the Ba River and we don't really know what all they are taking from our River."*

*"Cyclones are stronger now, it is damaging our crops and houses and we have to use our savings to recover."*

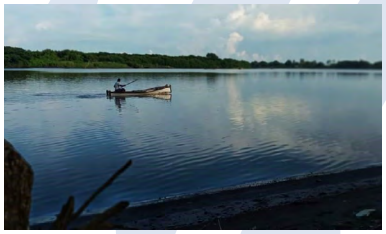
*"Marine fish breeding seasons are not how they used to be 20 years ago. We find less fish now."*

*"Our soil is salty and not as good as before and crop yield is low."*

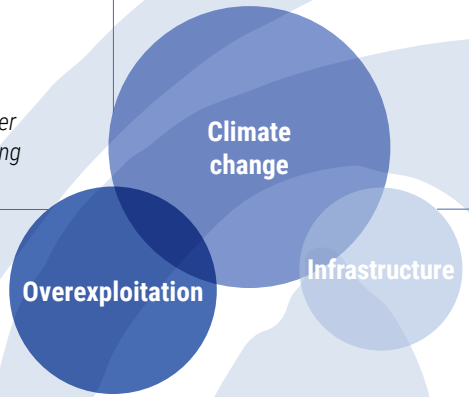
*"There more flash floods and flood water levels are higher than before."*

Credit: Na Teci Roaroa

*"Dredging of the Ba River is disturbing the fish spawning grounds, fish breeding patterns are changing."*



Credit: Na Teci Roaroa




Drivers of change

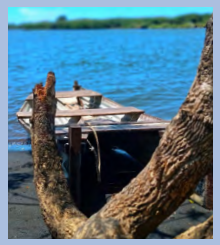
Credit: Kinisimere Ratu Qera

## IMPACTS ON LIVELIHOODS AND CULTURE

Credit: Kinisimere Ratu Qera

### New livelihoods for the iTaukei people

As climate change intensifies, villagers diversify income sources. Women engage in handicrafts, bakery and food sales. Men and young women also opt for paid employment in nearby towns.



Credit: Na Teci Roaroa

### More disruptive cyclones and floods

More frequent, severe floods and cyclones reduce crop and fishing yields, and damage buildings. They also increase the incidence of infectious diseases, such as diarrhoea, leptospirosis, dengue fever and typhoid fever.

Credit: Na Teci Roaroa

### Women lead climate change adaptation

iTaukei women rehabilitate mangroves and plant trees along the riverbank to enhance their adaptive capacity, protect ancestral lands, and prevent displacement. The community also established traditional no-take or taboo zones in their fishing grounds.