

# Implications of traffic restriction on the BR-174 highway crossing an indigenous territory: social and ecological impacts

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## BACKGROUND

The BR-174 was built during the military dictatorship as part of a policy to colonize the country's northern region. The construction of the road led to one of the most severe genocides during this period, when almost 90% of the WA community was murdered. In 1984, after the dictatorship's fall, the WA community began blocking access daily to the BR-174 within their territory between 6pm-6am. This restriction primarily aims to ensure the community's safety and to protect wildlife. This blockage, however, has undocumented ecological impacts and generates significant social conflicts. Consequently, they often face threats and legal challenges to their right to close the road.

## JUSTIFICATION

The expanding road network in the Amazon Forest, fueled by investments in infrastructure, is opening pathways that negatively impact both biodiversity and the people living within the forest. More research is key to better understand this temporary road closure to strategies for mitigating impacts of infrastructure.

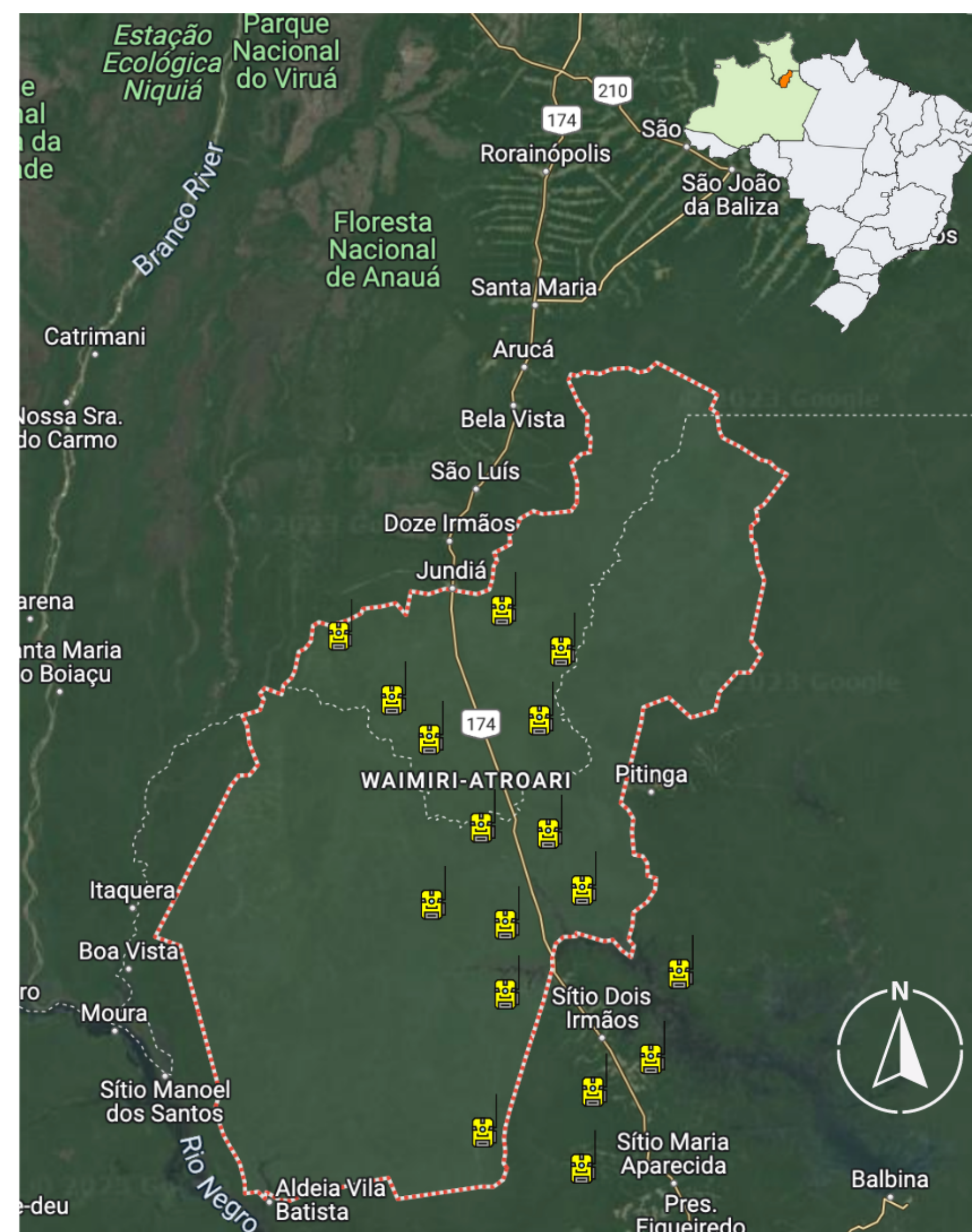
## RESEARCH QUESTIONS

### GENERAL OBJECTIVE

To understand the social and ecological impacts of the nighttime traffic restriction on the BR-174.

- 1) What are the impacts of the nighttime traffic restriction on indigenous territories?
- 2) What is the distribution of the costs and benefits for establishing and enforcing the nighttime closure of the BR-174 highway within the WA territory?
- 3) Do wildlife species exhibit avoidance behaviour in habitats situated near the highway?
- 4) Do mammals in the vicinity of the highway alter their daily activity patterns, specifically by adopting more nocturnal behaviours?

## STUDY AREA



## METHODOLOGY

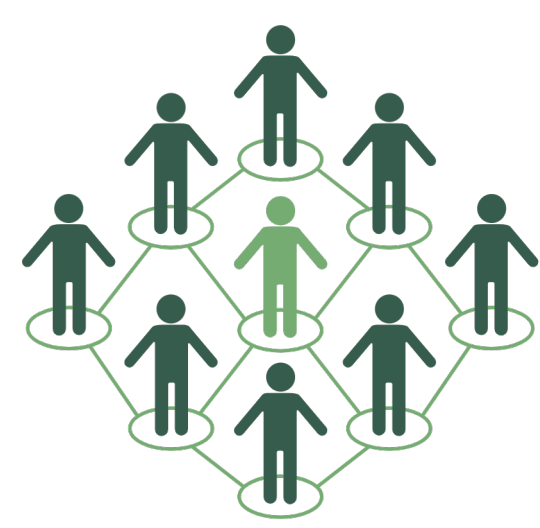
### SOCIAL QUESTIONS

#### Target Population

- Waimiri-Atroari Community
- Enawene- Nawe Community

#### Focus Groups

- 4 groups with 4-8 people
- Women, men, leaders, and members involved in the closure
- **Study Duration:** 2 months
- **Data Collection:** Support Centre



### ECOLOGICAL QUESTIONS

#### Camera Trap Design

- 35 camera traps
- 70 sites - inside and outside the Reserve
- 45 days in each site
- Varying distances from the highway

#### Faunistic Group

- Medium and large-sized mammals

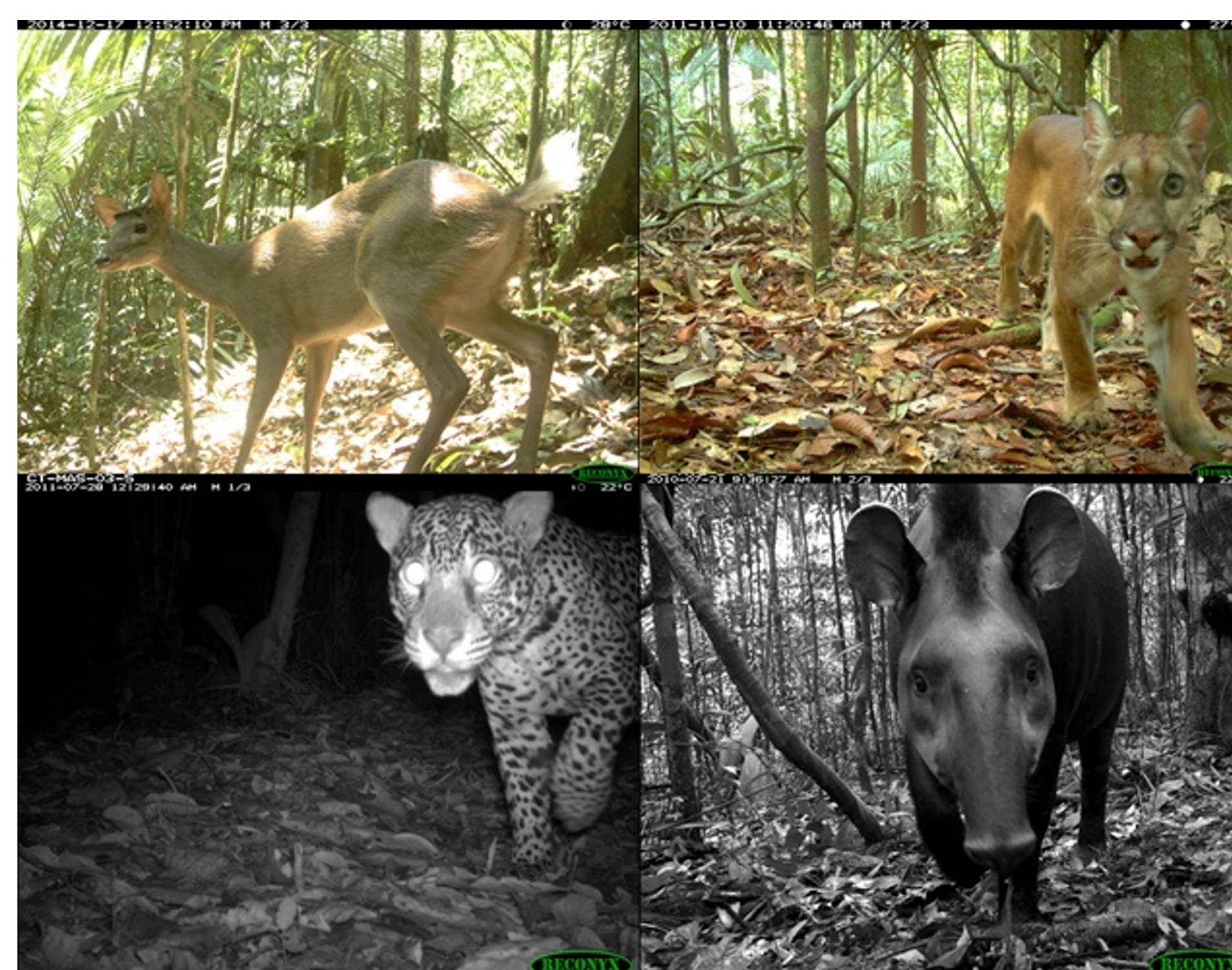
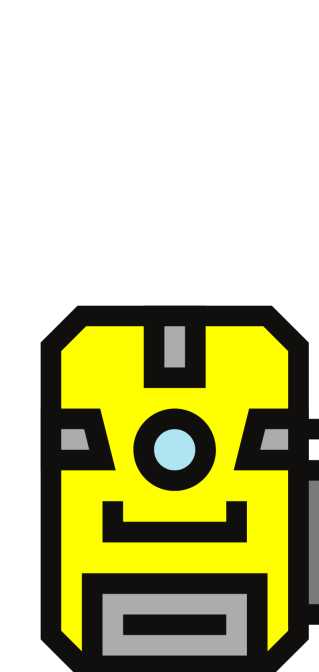
#### Data Analysis

- Occupancy Model
- Daily Activity Pattern

#### Study Duration

- 12 months in total
- 21,600 trap/nights

#### Secondary Roadkill Data



## SCIENCE AND POLICY IMPLICATIONS

- **Disseminate** good governance practices throughout indigenous communities in the Amazon Forest.
- **Provide** information to **mitigate** the negative impacts of highway management.
- **Highlight** the often overlooked **social impacts** of roads.
- **Empower** the **Waimiri-Atroari** to use **scientific findings** to maintain their right to close the road..

## CONCLUSION

This research aims to better understand the **impacts** of this **temporary road closure**, including its governance and **social** and **ecological** impacts. Findings from this study can have broader implications for conservation policy and practice in terms of integrating indigenous knowledge into strategies for managing and mitigating impacts of infrastructure development.

## ACKNOWLEDGEMENTS

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Themes	
1) Impacts of the highway	4) Perceived wellbeing
2) Benefits and costs	5) Mammals near highway
3) Conflicts	

