

Can remote data connect us to the land?

In Indigenous lands in California, what are the potential applications as well as the barriers to the use of Earth science information for land and water resources management?

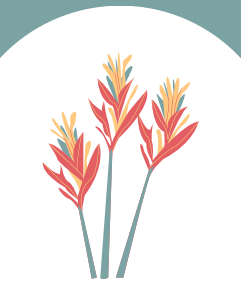
Tribal Interests in Remote Sensing Applications



Mapping land use change due to deforestation and monocropping



Water quality monitoring and mapping Harmful Algae Blooms



Mapping native vegetation and identifying sites for planting



Mapping the impacts of wildfires vs. prescribed burns



Restoration and monitoring of ecosystems after dam removal



Preserving cultural sites



Biomass and carbon sequestration

Barriers to Using Remote Sensing in Tribal Settings



Image resolution

The resolution of many datasets is not high enough to pick up on spatially fine information, e.g. water quality in small Tribal water bodies.

Access to data and training

Relevant data may not be accessible to staff in Tribal Governments because of data restrictions or staff training.

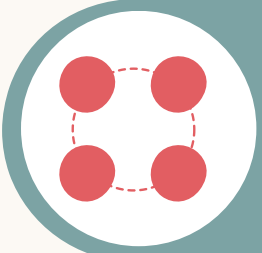


Time and staffing issues

Staff working in GIS and Natural Resources Departments are too few and too busy.

Insufficient IT infrastructure

Some remote areas may not be equipped with fast computers or high-speed internet connectivity.



Lack of centralization

Various departments involved with land and water resources management may not share data.

Data sensitivity and sovereignty

Tribal communities do not want to risk losing control over the sensitive information they own.

