



the
Amazon Conservation Team
Celebrating 20 Years: 1996 - 2016

Social Coding 4 Good

Title: The Amazon Conservation Team (Indigenous Mapping App)

Technology Stack – Skills Preferred

Database: Google App Engine, CartoDB, PostGIS, PostgreSQL or MySQL

UI: HTML5, Bootstrap, JQuery or other JS libraries

Programming Languages: Python (REST API), PHP, JavaScript, Ruby

Brief Project Description

The Amazon Conservation Team (ACT) is partnering with indigenous communities to create maps of their territories, a process involving the collection of thousands of data points related to indigenous sacred sites, cultural land use, traditional medicine, flora, fauna, and environmental and social pressures. This data is used to create territorial management plans that help indigenous communities make informed decisions on the fate of their territories.

ACT is developing an application for mobile devices that will improve the collection of geospatial data in rural and forest areas of developing countries. The application interface is being designed to maximize accessibility for semi-literate and illiterate communities by using graphical representations, audiovisual content, and indigenous languages. The application will connect to an online portal that seamlessly syncs and aggregates data for use in a browser-based mapping platform, such as Google Maps.

Phase of Development: Middle

Open Data Kit applications have been designed and are currently being tested and refined with partner indigenous communities in Suriname and Colombia. ACT staff is also elaborating on these apps to accommodate additional Amazonian contexts. A prototype data aggregation system has been developed but needs to be improved to increase usability by non-technical GIS staff. Current issues with ACT's data aggregation system include: complications in exporting data to CSV and KML formats from apps with nested groups (currently only resolvable through conversion to JSON and back to CSV), and visualization of data in ODK Aggregate again resulting from nested groups. The creation of an online portal is still in the conceptual stages.

Summary of Help Needed and Time Estimation:

ACT seeks help in the design and implementation of a user interface for a data collection application that is usable by indigenous communities. ACT also seeks support from a developer team to build an online portal that will aggregate data from field surveys into a central database, from which map data can be accessed, edited, and visualized via a web browser.

This is a longer-term project requiring an initial intensive work session over a weekend or full-day, followed by a 6 week commitment of a few hours per week for follow up work.