Sustainable Logging Monitoring in the Democratic Republic of Congo

Location: Democratic Republic of Congo

In-Country Partner Organization/Client: Ministry of Environment and Sustainable Development

Project Background: The Democratic Republic of Congo (DRC) contains about 62% of the remaining Congo Basin rainforest, the second-largest tropical forest on Earth. These forests are increasingly threatened by slash-and-burn agriculture and logging for timber, charcoal, and fuelwood. While most logging is carried out by small or medium-sized operators, industrial logging covers 7 percent of the DRC's forests — an area about the size of Cuba. Industrial logging companies are those logging companies have a legal logging concession agreement with the government based on certain area of forest. Current forest policies and regulations promote sustainable and profitable logging for both local communities and the country's economy. However, several challenges prevent the government from reaching this sustainability goal. Due to the lack of a strong monitoring system for logging taxation and social agreement implementation, the government faces loss of income due to corruption. Local and indigenous communities are unable to enforce the implementation of social agreements signed with logging companies as support to the economic development of local and indigenous people. Industrial logging companies are facing unfair competition imposed by the so-called illegal artisanal logging. Though the legal framework allows artisanal logging under certain limited requirements, there are many abuses in this domain. This has resulted to a huge illegal business that causes serious damage to the forest governance in DRC and imposes an unfair competition to legal logging competition.

Project Problem Statement:
This project consists of a computerized platform which combines logging taxes and monitoring, matching wood suppliers to international buyers, and social agreement monitoring to contribute to the improvement of sustainable forest management in the Democratic Republic of Congo. If correctly designed and implemented, this project will be a great contribution to the forest governance in DRC by reducing tax corruption and improving benefit of logging to local and indigenous community. In addition, this project will support logging companies comply to the international sustainable logging standards such Forest Stewardship Council, and by the way gain more exposure to the international wood market. Considering the complexity of this project, a good feasibility study is crucial to the successful implementation. D-Lab students can be of great help in conducting this study and possibly supporting the design of a prototype.

Project Goals and Objectives:
1. Feasibility Study
    a. Investigate current logging practices and regulations and their impacts/efficacy

2. Conceptual Design
    a. Conduct prior art research on existing app concepts that monitor and promote sustainable resource use
    b. Work with the client to determine design criteria