

# **DEVELOPMENT OF GEOFOREST APPLICATION TO MONITOR FOREST RESOURCES IN SABAH**

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## **ABSTRACT**

The GeoForest project aims to provide an integrated web platform for managing Sabah Forestry Department (SFD) databases efficiently, ensuring data consistency across the whole SFD. Currently, the data exists in partial states on individual computers or is only accessible to license holder and not to SFD. Furthermore, there are discrepancies in official survey data, license boundaries and forest reserves even within the same division of program unit. Centralizing data and adopting standard methods, templates and basic requirements for data consistency can address these discrepancies. The GeoForest platform will enable users to access essential data for forest districts, licenses, logging contractor, forest reserve, totally protected area (TPA), forest cover and forest inventory. To establish fundamental standard operating procedures, an interdepartmental working group to actively obtain and manage information and available data related to administrative and forest resources management. The working group will define core data sets, identify the minimum information required to track them using attributes and tables. The main software tools used to create this application are Visual Studio, SQL Server Management Studio, and Telerik Reporting Designer. The application is built using the ASP.NET MVC framework (C#/VB), with SQL Server as the database backend. Additional programming languages and technologies are utilized to develop the user interface and application functions, including HTML, CSS, and JavaScript, alongside Esri's ArcGIS Maps SDK to show and incorporate maps in relevant parts of the application. To date, total of 144 users registered comprise SFD top management, senior officers, Regional Forest Officer (RFO), District Forest Officer (DFO) and as well as other officers. Thus, by centralizing SFD databases and adopting standard methods for data consistency, GeoForest will enhance the efficiency and accessibility of SFD data.