

**Title:** DENR-NGP Monitoring System with Android Geographical Camera Application

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## **ABSTRACT**

This study focuses on the development of a hybrid monitoring system for the Department of Environment and Natural Resources National Greening Program. It aims to provide DENR a computer-based information system, both web-based and mobile, that tracks and monitors the rehabilitation of forests in its land jurisdiction through the use of Android geographical camera. In order for this technology to work, the researchers employed several modern tools such as HTML, PHP, Java, and JavaScript to aid in the rapid development of the application. A Google camera API was also used to capture images with layers of geographical data which is used to authenticate the evidences of rehabilitation. The application went through an agile software development methodology and used MySQL and MySQLite for managing its data both for the web and the mobile versions. After a series of validation and verification processes, the application passed the testing phase and proved to have met the user requirements. It was then deployed in the DENR local office and is currently being used at present.

**Keywords:** Hybrid systems, android application, web application, tracking, monitoring, geographical camera.