Prospects for GIS-based forest management in offline environments

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There have been plans for utilizing a geographic information system (GIS) for the efficient management of Japan's forests, which occupy two-thirds of the country's territory. However, the vast area includes an offline environment that cannot be reached by mobile phone communication networks; thus, the use of GIS for forest management has not been feasible. Although various technical approaches can be used to resolve this problem, the cost of implementation must be considered. In the past, studies have primarily focused on using open source GISs (FOSS4G), which can be used free of charge. In recent years, commercial GISs have become a possible option. In this presentation, I will review the status of Japan's transition to GIS-based forest management for offline environments and discuss its future prospects with respect to the increasing proliferation of smartphones and tablet terminals.

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