



GIS in Commercial Forestry

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Abstract:

Countries around the world are capitalizing on rapid globalization, spawning new industries to serve distant markets. In the current scenario the Retail Sector plays an important role. The case study present in the paper deals with an example of the role of GIS in Commercial Forest Management operations. The company deals with the distribution of wood and forestry raw materials to the consumers. This generates a need to Track, manage, plan and grow the operations. GIS was used as a system to manage all the complicated workflows and operations. But the old system was redundant and manual thereby increasing the response time and making the Forest Inventory management and operations difficult and painstaking. Also the GIS had to be interfaced and integrated dynamically with other systems so that all the analysis results pertaining to the company payroll (associated with the Forestry Management operations) and Wood Volume system (to get the exact species and volume of wood derived out of a particular Forest Area) can be done seamlessly. This proposed integration is bi-directional between GIS and the other systems. As a part of the initiative TCS developed a new GIS System which not only eliminated earlier redundancies in the system, but also provided a significant value addition in their workflow management and day to day operations. The new system addresses the management of the requirements such that the Operational Planning phase to the Harvesting and next plantation, all tasks will be captured automatically in the GIS. Also the non-GIS systems were interfaced which gave an idea to the Foresters about the wood species and volume even before the start of a harvesting operation. The solution was a combination of desktop, web and mobile applications which were seamlessly interfaced with each other.