A framework for the afforestation information system in Burdur Region

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Abstract: Afforestation, which plays an important role in forestry practices, is necessary for sustainable forestry. Afforestation is realized not only for the establishment of the future forest areas but also for reducing erosion in severely eroded areas or rehabilitating the degraded areas. In order to evaluate the success of the afforestation activities, field works should be recorded and long term monitoring and measurement should be performed for these areas. Geographical information system is necessary in order to carry out these activities in a permanent, controllable and accountable way. To this end, a digital database that consists of graphical and text data about the activities is created under the afforestation information system. Spatial data such as soil characteristics, geological structure, climate data about the afforestation areas can be added to this system as a layer. The relationships between the data can be examined with the help of the analysis functions offered by the geographical information system. This system is a dynamic structure with features that can be updated and edited on a continuous basis. The purpose of this study was to produce the afforestation geodatabase and to describe a framework for the afforestation information system in Burdur region. While creating the geographical database, the necessary physical infrastructure was provided to enable the data input and feature codes were developed. The graphical data derived from afforestation, erosion control and rehabilitation projects in this region were uploaded to the geodatabase. Furthermore, text data such as tree species, soil tillage method and plantation year were also recorded. The maps of afforestation works were also created. The data obtained in this study show that the operations performed in the area are not recorded in details. These gaps make it difficult to interpret the results of data analysis. It is suggested that creation of a multi-dimensional afforestation information system and uploading detailed data will provide support in decision-making process for the planners.
Keywords: Afforestation information system, GIS, Burdur, Afforestation, Erosion control, Rehabilitation

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