Determining Most Suitable Areas for Logistics Centers by Using GIS and S-MCDM

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SUMMARY

With the developing technology and trade volume, the concept of time becomes one of the most important concepts affecting the cost. For this reason, logistics and freight village concepts are important concepts to be considered to maintain order in trade and increase speed while reducing costs. In addition to literature surveys on this subject, action plans and strategic plans of public institutions were also examined. Accordingly, the logistics sector was identified as one of the priority sectors to work in Turkey. In this respect, the case study of the Investment Environment Improvement Project, which was prepared under the supervision of the Ministry of Environment and Urban Planning, was conducted on the logistics sector. The project aimed to determine the most suitable areas for sectoral facility investments. The results of the literature were examined in determining the factors affecting the location of the logistics centers. In the analysis phase of the project, the interface developed based on the integration of GIS and spatial MCDM techniques was used. In this study, the AHP method was used as the MCDM method. Through this interface, many GIS operations were implemented in a hierarchical sequence and cost surface maps were created. Besides, a workflow chart and methodology for site selection across the case study is presented.