

ABSTRACT

Establishing a contemporary and effective air travel system is essential for economic development and global connectivity, especially in regions with geopolitical challenges like the West Bank and Palestine. The objective of this project is to determine the optimal locations for airport development in the West Bank through the use of Geographic Information Systems (GIS), multi-criteria decision analysis (MCDA), and consultations with stakeholders.

The research starts with a comprehensive analysis of the existing transportation system in the West Bank, as well as its demographic distribution and economic activities. Discussions with specialists and community members assist in pinpointing and prioritizing essential factors for choosing an airport location, including environmental, socioeconomic, and logistical aspects. These criteria encompass factors such as landscape (elevation, gradient, and orientation), proximity to metropolitan regions, nearness to transportation systems, and noise influence areas, airspace limitations and environmental sensitivity.

The study's findings will identify several potential airport sites, each of which will be assessed for suitability and conformity with international aviation standards for safety, environmental protection, and operational efficiency. The most appropriate site will be recommended, as well as implementation tactics and proposals for future improvements in West Bank air transportation policy.