

Review of: "Airbase Compatibility with Spatial Planning: A Case Study of Airbase Waterkloof (South Africa)"

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Potential competing interests: No potential competing interests to declare.

Security and defense are the priority issues of a society. However, optimum solutions can be produced by using spatial planning and multi-criteria spatial analysis in the location selection of an airport that will be used for both civil and military purposes.

Or the noise and carbon emissions caused by an existing military airport; By measuring the impact on the city, the environment and people, spatial planning decisions can be made with spatial analyzes that will support spatial decision-making, and existing plans can be revised.

The effects of carbon emissions and noise pollution on the city, people, agricultural lands or biodiversity can be mapped thanks to geographic information systems. Thematic maps can be created by mapping noise threshold values in and around the airport. The impact on human health can be reduced by making decisions not to plan residential areas in places above the threshold value. Likewise, thematic maps can be created by mapping the carbon footprint with geographical analysis of the impact of carbon emissions. Measures can be taken regarding agricultural lands and the food sector.

If noise pollution is at threshold levels in the city, unnecessary flights can be restricted by flight planning. Private jet use and flight hours may be restricted. National legal regulations should be made for noise and carbon pollution by examining international legislation and practice examples.

There are limit values for immissions and emissions worldwide, in Europe and its member states. Noise emissions from aircraft are determined by the International Civil Aviation Organization (ICAO). In addition to these concrete determinations of protection-related objectives, in many laws (for example, in construction management planning) the issue of noise protection is qualitatively foreseen (under the perspectives of protecting health or preventing nuisance).

Position Paper WG2 of the 2002 European Working Group on noise protection policy. Then, at the same equivalent noise level, the disturbance caused by aircraft noise is the highest, followed by road traffic noise and railway traffic noise.

For this paper, the research topic should be simplified, existing spatial data in the study area should be collected, spatial analyzes should be determined according to data levels, and data should be produced if possible. Spatial analysis method and mathematical models can be decided according to spatial data specific to the study area. There are a lot of scientific articles which have similar subject, and should be re-researched. Research should be expanded, especially for spatial analysis and planning decisions. It would be more appropriate to publish the article after the study to be carried out in this



context.