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**APPROPRIATE SELECTION OF LOCATION FOR WASTE LANDFILL, WITH
RESPECT TO DISEASE PREVENTION**

Milevski Ivica, Dimitrovska Olgica

ABSTRACT

Selection of location for local or regional waste landfill and their proper arrangement has great influence for prevention of disease. According to our opinion, part of 25 official landfills in Macedonia hasn't appropriate location or have not sanitary arranged, in a way to prevent potential diseases. This problem is too important now, when new regional sites for landfills are in consideration. For this purpose we must take in mind several factors: geology, hydrogeology and pedology of the terrain, geomorphology, climatology, hydrology and biogeography of the area, as well as vicinity of settlements, human activity in the local area, land structure, agricultural activities etc. Because so many factors affect waste landfill selection, it is necessary using modern tools like GIS and satellite imagery. With combination of this software tools and direct terrain research, we can isolate locations as closely to our requirements. On the other hand, for already established landfills must be preparing detailed GIS, with data's about possible negative environmental impact, and treats to human health living (working) in vicinity.

Recent processes of industrialization and urbanization have some positive and negative effects. One of the negative effects is rapidly heightening of industrial, communal, medical and other types of waste, who may be environmental and health threatening. In Republic of Macedonia, the problem is that such high quantity of waste was disposed on inappropriate locations, with unhygienic way, without sufficient soil, water and air protection. These sanitary not well arranged landfills represent sites for potential infections and diseases. Until now, in our country existed overall 25 officially recognized, temporarily functioning landfills. There is only one communal waste modern landfill with appropriate technical solutions, located in the capital of Skopje. All other landfills are located in the immediate vicinity of major settlements. Landfill locations have been specified without applying the modern criteria for landfill location selection; landfills in the country are, therefore, located mostly on inadequate sites. There is no technical or other legal documentation on any of these landfills.

Now, official government institutions planning new locations for regional landfills. In this process must kept in mind all relevant locational factors, especially hydrologic, hydrogeologic, geomorphologic, climatic, vegetational, vicinity of settlements, using of soils, positions of protected areas ect. For proper landfill selection, new methods must be used, especially GIS technique of exclusion.

Key words: landfill location, diseases prevention, GIS

With: 2 figures and 1 table