

عنوان مقاله:

Land Suitability Assessment For Locating Solar Farms Applying GIS

محل انتشار:

کنفرانس بین المللی معماری، شهرسازی، عمران، هنر و محیط زیست؛ افق های آینده، نگاه به گذشته (سال: 1394)

تعداد صفحات اصل مقاله: 8

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خلاصه مقاله:

Sustainable energy sources which are known as the safest sources with the least environmental footprints, have a determining role for guarding the nature and also the environment. As a source of almost all other kinds of energies, solar energy has an important position. Solar energy is the most accessible and also the purest energy source on the earth which doesn't need any expensive and developed technologies to be utilized. This sort of energy can be used in poor regions where there aren't enough underground sources and also in the arid regions in Iran as a useful source of economical development, with no dangerous and unpleasant impacts on the environment. The purpose of this study is to study and analyse the land capability of Khorasan Razavi province in order to locate solar energy farms. So at first, all the effective and important factors such as the amount of sunny hours, cloudy days, relative humidity, air temperature, annual precipitation, dusty days, land use, elevation, slope were studied. Then the needed criterion layers were produced in the environment of Arc GIS software and the appropriate weights for each layer were determined using AHP decision making model. The output of the model shows the potential zones of the study area for establishing solar power stations. According to this resulted layer, the southern parts of the province like Boshruye, Gonabad and Ferdos have the highest potentiality so these regions are suggested as the best locations for establishing solar power stations.

کلمات کلیدی:

Land Suitability Assessment, Solar Farms, Khorasan Razavi, GIS

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