THE SUPERVISED SEGMENTATION METHOD TO IDENTIFY GREEN OPEN SPACE NEED BASED ON CARBON EMISSION IN JOGJAKARTA

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ABSTRACT

Green open space is one of vital component to decrease global warming and raising temperature in several area. The increase of total inhabitant and transport usage significantly make analysis of green open space need and placement for new location of green open space very important to asses continously. Analyse of green open space need are determining efficiently with using remote sensing support especially high resolution satellite image. Writer will use quickbird satellite image with spatial resolution 0,64cm. Quickbird is used to identify variety of land use in Jogjakarta. Classification of land use are shown early by supervised segmentation method. Land use data is used to determine size of forest, bushes, garden, and grasses in Jogjakarta and that size is used to calculate available green open space . Electricity and fuel (gasoline and diesel fuel) consumption approach is used to calculate carbon stock in Jogjakarta. This research show majority of sub- district in Jogjakarta still have minus green open space. From 14 sub- district in Jogjakarta, just 5 sub- district had open green space. They are Kotagede, Wirobrajan, Mantrijeron, Umbulharjo, and Tegalrejo. The sub- district that require the most addition of green open space is Gondokusuman because it still have large carbon emission that can't absorbed by vegetation as much as 1699.444 ton. To determine the location of new open green space is using Landsat with band thermal because it consider temperature and using Quickbird satellite image to find open space around of hot area or area with higher temperature.

Keyword : supervised segmentation, green open space, remote sensing.