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# Land Cover Classification of Fergana Valley Using NDVI Method

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This paper describes methodology and results of NDVI (Normalized Difference Vegetation Index). The NDVI helps to generate accurate land cover maps in fully automatic manner from Landsat8 remote sensed data throughout USGS website. A preliminary study aimed at recognizing the healthy and stressed vegetation in Ferghana Valley over three years in 2014, 2015 and 2016. Territory and cities of Ferghana Valley have been selected as study areas (Andijan, Fergana, Margilan, Namangan, Kokand, and Shahimardan); they are covering different agricultural regions and greenery types, from evergreen to others. According to the results, in 2016 the vegetation indices are shown higher value than in 2014 and 2015, there may be different reasons for this, particularly relatively denser vegetation, lack of water, soil properties or/and likely different weather conditions due to climate change. Hence, the NDVI tool is credible method for researching an assessment of crop density and health.

**Biography:**

Dr. Kulenbekov received his PhD from the Technical University of Freiberg Mining Academy, Germany in 2013. Currently, he is working as a Chair of Environmental Management and Sustainable Development (EMSD) and Applied Geology programs at the American University of Central Asia (AUCA), since August 2014. He is one of the recipients of a research award from PEER, administered by the U.S. National Academy of Sciences (NAS) in 2016. He is a member of the Intergovernmental science-policy Platform on Biodiversity and Ecosystem Services (IPBES) since 2016. He is a member of AUCA Expert Council of USAID Building Future Project since January, 2017.