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"Can agroecological farming feed the world? Farmers' and academia's views"

Migrants: the pull effect of rural industrial areas as seen from space

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Abstract

Accessibility to raw materials, cheap labour and lenient labour laws make rural areas attractive to many industries in West Africa. The set-up of small-scale solid mineral industries is popular in rural West Africa. These industries are labour intensive and require small to large areas of land. This is just one of the examples of industrialisation taking place in rural areas. Nigeria is well known for its vast oil reserves, which in turn creates a lot of employment opportunities, especially for low-skilled workers, since many of the reserves are in rural areas. Ghana's southern western region has a wealth of gold, which has caused small-scale industries to spring up and led to an influx of people from more rural areas. In combination with proximity to mineral resources, this has led to rural industrialisation. This can be seen in the increase in the number of people in an area which indicates an influx of migrants. When this happens there's an upsurge in migration to rural areas, and pressure on land and water resources from agricultural activities, which affects the livelihood of migrants. This study seeks to identify migrants' behaviours to move to rural industrial areas in Ghana and Nigeria using remote sensing proxies. The method will use several remote sensing products such as Landsat, Copernicus datasets, Hansen Global Forest dataset, WorldPop and JRC-Global Human Settlement Layer dataset. The Random Forest classifier will be used to generate a Landcover map of the selected areas with Copernicus and Landsat datasets. The expected result will have the potential to demonstrate that Copernicus data, World Pop and Hansen Forest Cover data can be a useful proxy for population and migration studies. Moreover, the monitored significant changes in land use and land cover in the industrial areas compared over the past 20 years reveal certain trends of the industrialisation era in Western Africa. The research has the capabilities of producing effective and accurate methods for identifying the pull effects of industries in rural areas. This is essential for the implementation of policies for improved infrastructure, improved labour laws, good health and decent wages.

Keywords: Burkina Faso, Ghana, industries, migrants, Nigeria, rural areas, satellite data, West Africa

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