

Geographic Information System Based Development Potentiality Assessment for Rural Villages: Case Study in Fuliang County, Jingdezhen

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Abstract : Chinese rural industry development is the major task currently during rapid urbanization. Development of potentiality assessment, evaluate the overall suitability of each village for further industrial development, could offer reference for policy makers, especially considering the limited data available in Chinese rural regions. The study focuses on 157 official villages in Fuliang County and evaluates their development potentiality by their topography, transportation condition, population, income of villagers, infrastructure and environmental conditions. Land cover changes for Fuliang county and surrounding areas of each village is also investigated for reference. The final development potentiality of each village was calculated by adding different weighted scores of different categories. Besides, inverse distance weighting (IDW) images for both final score of development potentiality and each factor were made and compared to help to understand the final result. The study found that village in the southern and northern regions have higher development potentiality than villages in the eastern and western regions, mainly because of higher income of villagers, good accessibilities and a large amount of population size. In addition, the Fuliang county was divided into five regions based on final result and policy reference for the development of each region were put forward individually. In addition, three suggestions were made for better local development potentiality: Firstly, the transportation accessibility needs to be improved in the northern regions by building more public transit system there. Secondly, the environmental conditions and infrastructure conditions in the eastern region of the county need some improvement. Thirdly, some encouragement and job opportunities should beset up in the western regions to attract labor force to move in and settle down.

Keywords : development potentiality, Fuliang GIS-Based, GIS, official village

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