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Developing a prototype of geo-spatial system for the implementation of One District, One Factory policy in support of regional economic development and poverty alleviation programmes in Ghana

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Poverty-alleviation programme is at the thrust of the agenda in the development strategies of the Government of Ghana. This study presents an integrated approach towards the development of a prototype of geo-spatial system (GIS) for the implementation of One District, One Factory (1D1F) in support of regional economic development and decision-making relative to poverty alleviation programmes. Based on the process of decentralization, poverty assessment is formulated at three administrative levels: district, regional and national (Central Government) to define and evaluate poor communities in the country. The main drawback to such a bottom-up approach is its emphasis mainly on socio-economic data-sets and manual techniques. GIS is hereby considered as a process and technique that strengthens the effectiveness of poverty assessment by changing bottom-up to a comprehensive integrated approach providing a stronger tool that enables the inclusion of spatial data-sets for the sitting of 1D1F, relative to regional economic development. To achieve the main goal of developing a prototype of GIS for the implementation of 1D1F policy in support of regional economic development and poverty alleviation programmes, this study adopts the Structured System of Development Methodology based on three phases namely: problem definition, system design and implementation. At the phase of problem definition, the proposal takes into consideration the problems of poverty assessment processes, the requirement of the users of such information to ensure an improved system; the outcome shows that in addition to socio-economic information, spatial data is included in poverty assessment and analysis that could be supported by GIS. At the second system design phase, the system design was undertaken on the basis of process modeling and data modeling using GIS. The integrated operation has at its thrust, the goal of overcoming the current lack of spatial data-sets. The last phase of data modeling is premised on the development of geo-database that integrates both socio-economic and spatial data-sets in support of 1D1F. The prototype used Microsoft Access and ArcView software, respectively. Henceforth, a prototype of GIS is developed to investigate and examine the effectiveness of an integrated system geared toward the implementation of 1D1F in support of regional economic development and poverty alleviation programmes with Ghana as a laboratory.

Biography

Napoleon Kurantin is a Senior Lecturer and Head of Department of Development Policy in the GIMPA School of Public Service and Governance (GSPSG) at the Ghana Institute of Management and Public Administration. He was the Coordinator of the GIMPA–Ghana Armed Forces Command and Staff College (GAFCSC) Master's Degree in Governance and Leadership; Coordinator of GIMPA–Kofi Annan International Peacekeeping Training Center (KAIPTC) Master of Arts Degree in Conflict, Peace and Security (MCPS) and was the Acting Director of GIMPA–HOTCATT. In his current position, he teaches courses in Research Methods (Advanced Quantitative Methods), Geo-spatial Statistics, Geospatial Governance Framework (Security and Good Governance), Natural Resources Management, Defence and Intelligence Management, Conflict and Crisis Management, Theories of Economic Development, Economic Science, Practice of Development Economics, Strategies and Management of Development, Environmental Economics and Management, Strategic Management and Leadership, Planning and Regional Economic Science. He has been with GIMPA, GAFCSC as Academic Directing Staff and KAIPTC as an Adjunct Lecturer for the past eight years

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