

Spatial Distribution of Poverty indicators in Ekiti State

Chris Adebola Odeyemi

Department of Surveying & Geoinformatics, the Federal Polytechnic, Ado-Ekiti, NIGERIA

Abstract

This paper explore the use of Geographical Information System (GIS) analytical capability to analyze the spatial pattern of poverty indices with a view to evolving policies that will focus on ways to identify opportunities for intervention. The analyses shows where government can ascertain the present state of socioeconomic development and identifying poverty level at the community level, government can therefore deplore machinery toward. The data used for this work was extracted from the baseline survey report carried the Ekiti State, Nigeria. Data from the baseline survey was feed directly into ArcGIS software to analyze poverty indices. The resultant information on the socio-economic indicators were shown as maps. The original baseline data had a large dataset, which was reduced to seven basic sub-sectors which is referred here as indicators, which were, educational, health, water and sanitation, transportation, electricity supply, socioeconomic, natural resources and environment, where poverty was considered as the main sector. The analyses of these indicators/sub-sector was ranked Very Low, Low, Medium, High and Very High on Ekiti State map. This will help government, donor agencies and NGOs know which sector or/and LGAs to be involved in and direct machineries to reduce poverty in such area.

Introduction

Poverty is often defined in absolute terms of low income – less than US\$2 a day (WHO, 2013), but, poverty can be relative in terms of place and time one live in. Poverty can be defined as where people fall short of certain accepted minimum levels of wellbeing, for example, access to certain consumption or income levels, housing, health and education facilities and certain rights recognized according to standards of human needs and socio economic conditions of the society (MFP, 2008; Ravallion, 1998).

Nigeria had designed and developed policies, legislations and development programmes to reduce poverty and address its primary causes, but most of these initiatives to raise the living standard of the poor but all these efforts are all carried out in an ad-hoc manner. Some of these initiatives include, the 70s and 80s poverty alleviation programmes were directed towards food programmes, examples are the 1972 Gen. Yakubu Gowon's National Accelerated Food Production Programme (NAFPP) and the Nigerian Agricultural and Cooperative Bank, entirely devoted to funding agriculture. There was the Operation Feed the Nation in 1976 by the Obasanjo government. The 1979 Shehu Shagari's Green Revolution Programme had the objectives of curtailing food importation. The Buhari's government introduced the Go Back to Land programme, while in 1986 Gen. Babangida established the Directorate of Food, Roads and Rural Infrastructure (DFRRI) for rural development. All these were to made to fail because of the far-fetched objectives of making farmers out of all Nigerians. There was the Better Life Programme (BLP) and in 1993 the Family Support Programme (FSP) and the Family Economic Advancement Programme (FEAP). From 2000 to the present moment, the Nigerian Government's National Economic Empowerment and Development Strategy (NEEDS) outlines policies and strategies designed to promote economic growth. To complement the federal strategy and equivalent approaches at the state level the State Economic Empowerment and Development Strategy, (SEEDS) and the local level Local Government Economic Empowerment and Development Strategy (LEEDS). These initiatives tend to address weak governance; social conflict; limited technological innovations that hinder productivity; environmental degradation, which aggravates poverty (Agbi, 2009; Obadan, 2010), instead of ascertaining the present state of socioeconomic development and identifying poverty level at the community level.

Poverty in Nigeria

In Nigeria poverty incidents are rampant, that is, based on World Bank definition or standard of poverty, which is \$1 per day, the percentage of population living in poverty rose from 27% in 1980 to about 48% in 2000 in year 2000 (ADF, 2000), there is an increase in clustering in poverty rate from 2005 to 2010 in Nigeria (Odeyemi & Olamide, 2013). Poverty is especially severe in rural areas, where 80% of the population lives below poverty level, not only that, they lack basic health facilities, access to basic education, access to potable water & sanitation, economic and basic infrastructures are also limited, which particularly affects women and children, thus aggravating their poverty status at the community level (ADB, 2004; ADF, 2000). There is a strong

correlation between poverty, and low education, large household size, gender bias, which presupposes that they are key target areas that needs to be addressed and promote by poverty reduction interventions in Nigeria.

Situation in Ekiti State

Ekiti State is an agrarian state. This implies that majority of the people live in rural areas where farming is their major activity and source of income. It is a relatively small, physically compact and ethnically homogeneous state which, for a long time has been the source of agricultural produce for the large cities in Southwestern Nigeria. It is also one of the largest producers of cocoa in Nigeria.

In spite of the above, the economic base of the state is very poor and there is an obvious inverse relationship between labor and output/income. Interventions, whether in terms of production activities or development assistance, normally change the socio-economic status of a community over time. However, the nature and the extent of these changes can only be determined, if prior to the intervention, a socio-economic (baseline) survey of the community has been carried out. The baseline survey will serve as a reference point against which future status of the community can be evaluated. It involves the collection and analysis of information on the socio-economic indicators as well as natural resources of the community prior to the intervention. A baseline survey will help to ascertain the present state of socio-economic development in the LGAs of the state to ensure that at the end of the project, proper and acceptable impact assessment studies could be carried out (EKCSDA, 2010) .

There is the need for direct, positive intervention by government to improve the rural economy, and reduce poverty by intervention. This is in furtherance of the actualization of one of the Millennium Development Goals (MDGs) of the UN. Community and Social Development Project (CSDP) is a scaled up of the pilot Community-based Poverty Reduction Project (CPRP) and Local Empowerment and Environmental Management Project (LEEMP). CSDP is therefore an intervention building on the CPRP and LEEMP structures to effectively target socioeconomic, water resources management and infrastructural projects at the community level as well as improve Local Government Area (LGA) responsibility to service delivery. One of the key highlights of the CSDP is that clear-cut supportive roles and responsibility provided by the key actors in the project cycle. The overall goal of the CSDP is to improve access to services for human development. To achieve this goal, the Project Development Objective (PDO) is to support empowerment of communities and LGAs for sustainable increase access of poor people to improved social and natural resource infrastructure. To enable proper documentation of the project impact, there is need for baseline study. The baseline study results will serve as an initial measure to assess the effect of CSDP interventions in Ekiti State (EKCSDA, 2010).

Study Aim and Objectives

The aim of this study is to analyze the spatial pattern of poverty indices with a view to evolving policies that will be focus on ways to identify opportunities for intervention. The objective of this study is to identify workable and analyzable poverty indicators that can lead to the development of spatial poverty index and therefore use GIS in mapping these poverty indicators in order to assist the government and donor agencies in identifying poverty level and method of interventions.

Methodology

Data were extracted from the report on the baseline survey carried out by Geodetic Technologies Limited in partnership Ekiti State Community & Social Development Agency (EKCSDA). This socio-economic (baseline) survey was conducted in 269 villages, where 2,600 household were sampled, which cut across all the 16 LGAs of Ekiti, Nigeria.

Geospatial Analysis is the process of examining the locations, attributes, and relationships of features in spatial data through overlay and other analytic techniques to address a question or gain useful knowledge. Spatial analysis extracts or creates new information from spatial data. Data from the baseline survey was feed directly into ArcGIS software to analyze poverty indices. Analysis of information on the socio-economic indicators was out here. The original baseline data had a large dataset, which was reduced seven (7) basic sub-sectors which is referred here as indicators, that is, educational, health, water and sanitation, transportation, electricity supply, socioeconomic, natural resources and environment with poverty considered as the main sector.

Results and Discussion

Educational Sector

Education in Nigeria, plagued by low funding, which in turn causes old and dilapidated infrastructure, lack of furniture and learning materials. Teaching staff are underpaid and unmotivated, low pupil/student enrolments and outdated curricula.

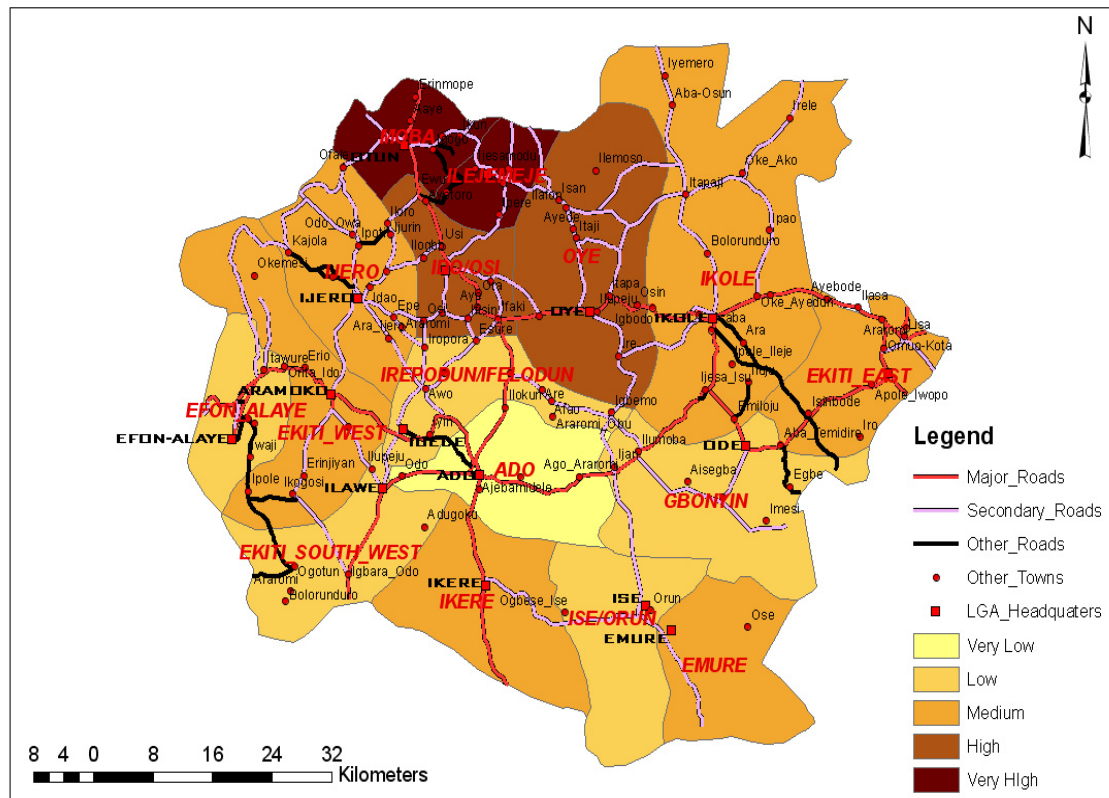


Fig. 1: Access to Educational facilities (Primary & Secondary)

From the above figure, accessibility to education for both primary and secondary is high in Moba LGA and very low in Ado LGA.

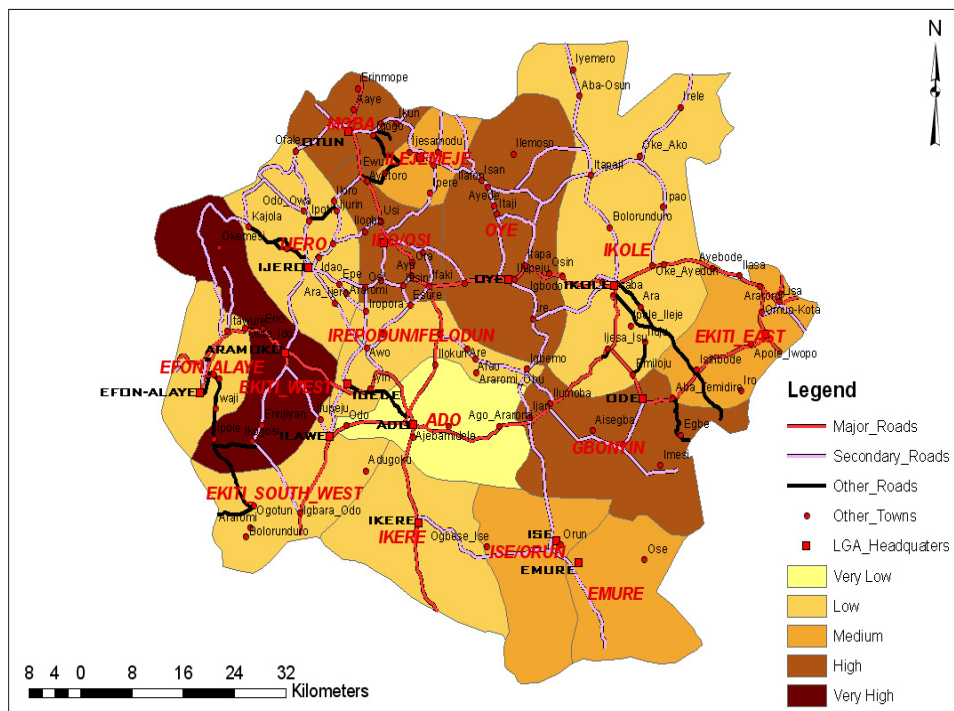


Fig. 2: Students' Enrolment

The figure shows that there are more students enrolled in both primary and secondary school in Ijero LGA, and very low in Ado LGA.

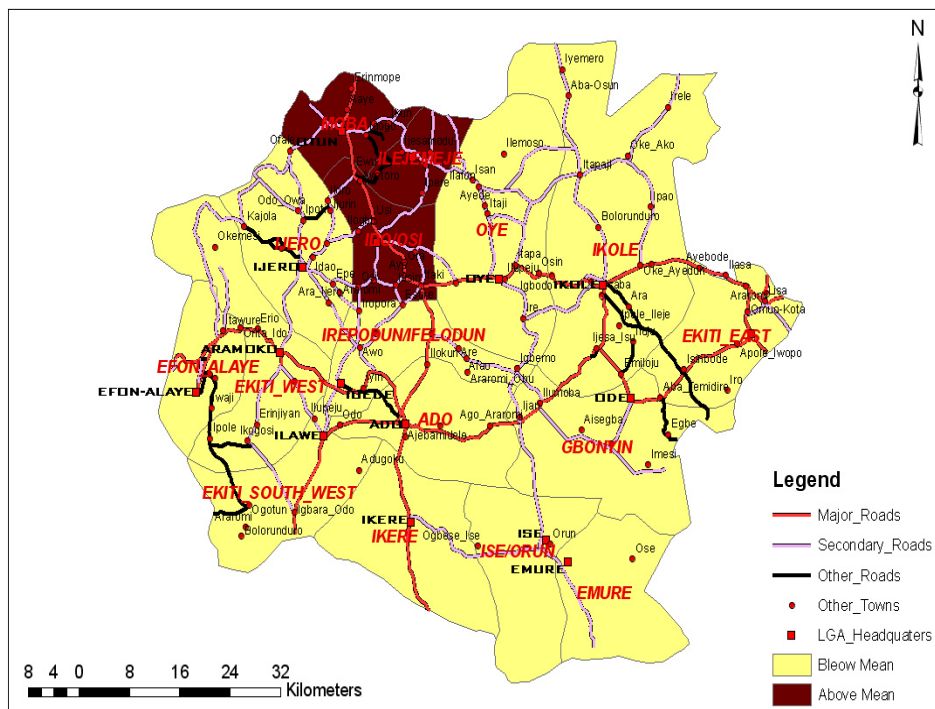


Fig. 3: Mean of Accessibility to Educational facilities (Primary & Secondary)

Moba, Ilejemeje and Ido/Osi LGAs have were able to access educational facilities far above all other LGAs in the state.

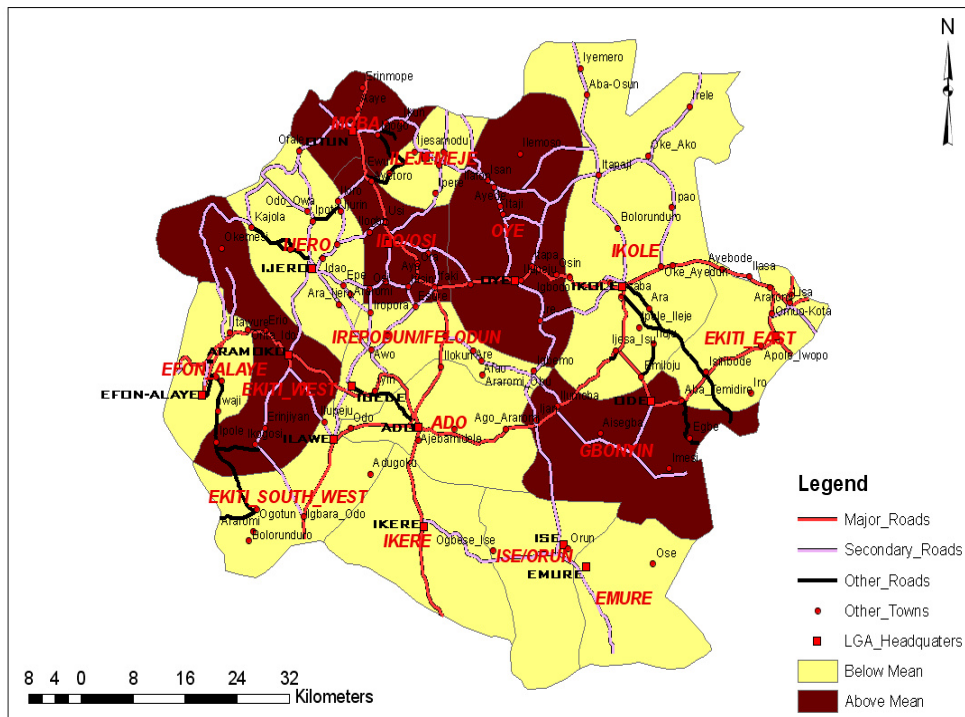


Fig. 4: Mean of students enrolments (Primary & Secondary)

The above figure shows that Ijero, Moba, Ido/Osi and Gbonyin LGAs have more students in school than other LGAs in the state.

Health Sector

The poor are exposed to greater personal and environmental health risks, are less well nourished, have less information and are less able to access health care; they thus have a higher risk of illness and disability. Conversely, illness can reduce household savings, lower learning ability, reduce productivity, and lead to a diminished quality of life, thereby perpetuating or even increasing poverty. The percentage of the Nigerian population that have access to primary health services is low and below the average for the sub-Saharan Africa. The health sector is also characterized by fake drug syndrome. In Nigeria about 30% childhood mortality due to malaria scourge also, half of the outpatient in most Nigerian hospitals and clinics are treated for malaria, Malaria makes people poor as they are not able to go to work and prevents children from going to school. Families also spend earnings on treatment and prevention of malaria. HIV/AIDS is another epidemic in Nigeria; it is believe that about 5million of its adult population are infected with HIV.

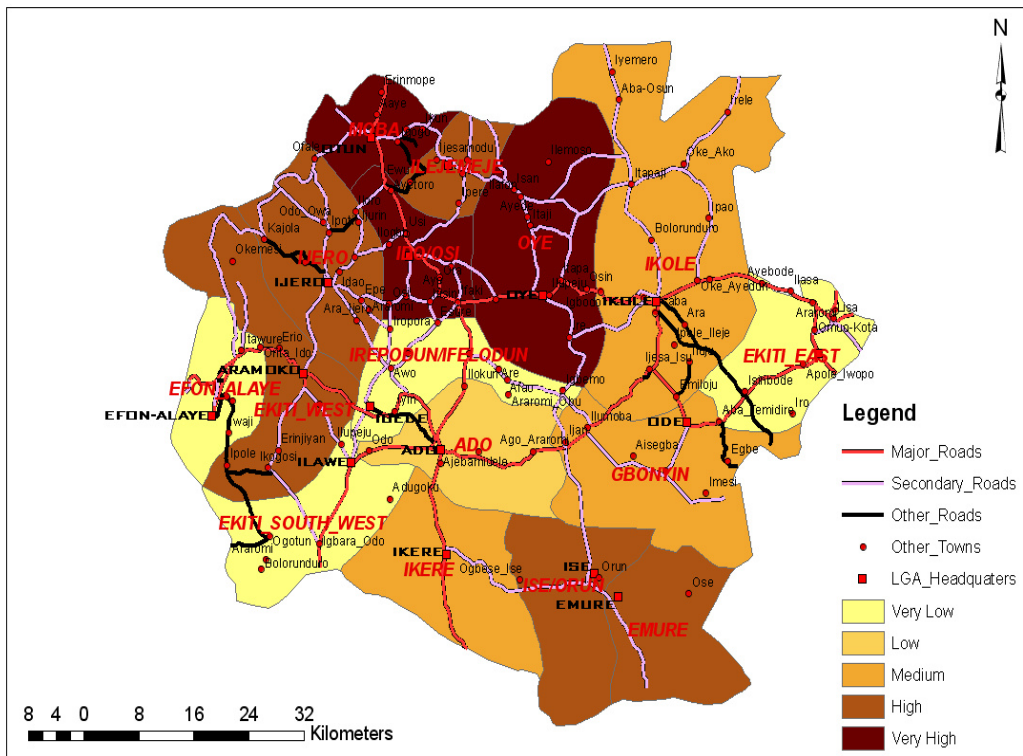


Fig. 5: Existence of Health Facilities

Existence of health facilities is attested for all LGAs in the state, but that of Moba, Ido/Osi and Oye LGAs are very high.

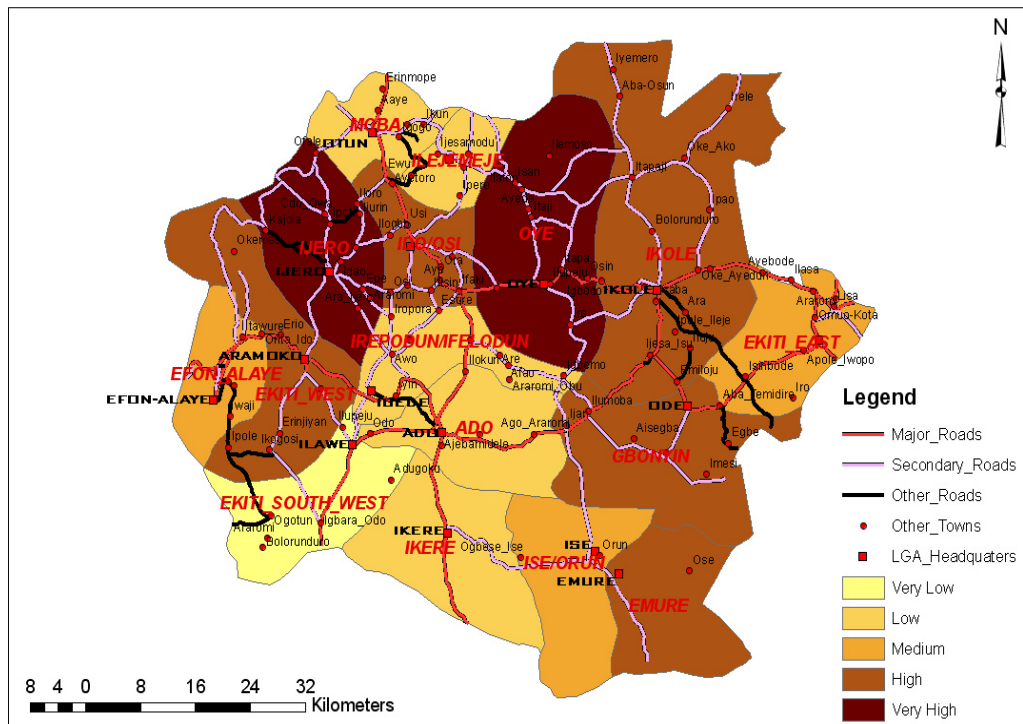


Fig. 6: Communities benefiting from available health facilities

Communities benefiting from available health facilities are very high in Ijero and Oye LGAs.

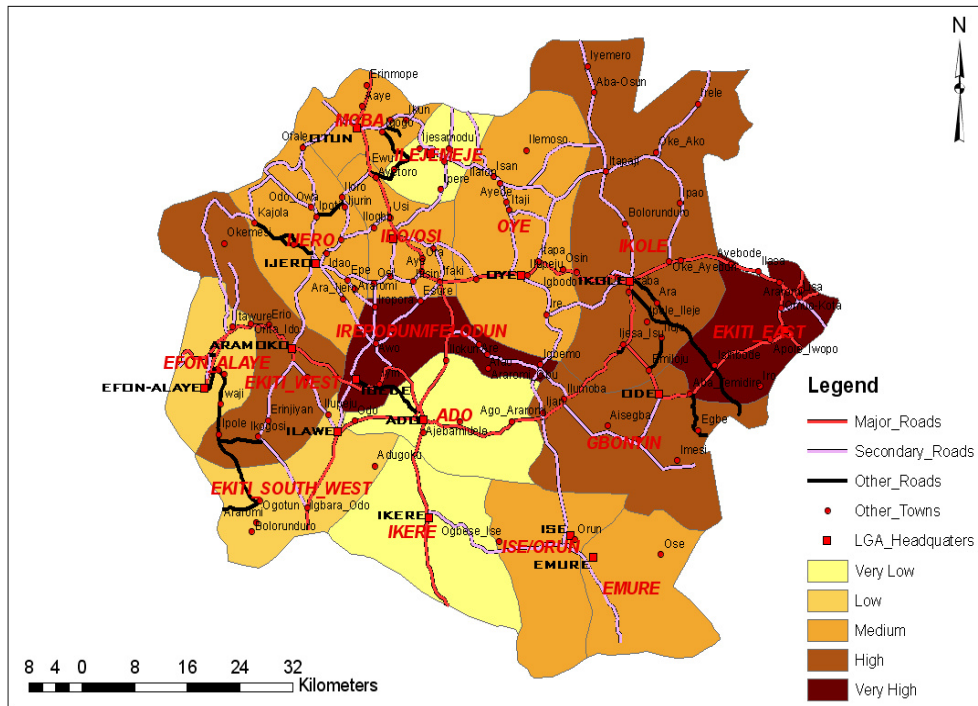


Fig. 7: Estimated population of communities benefiting from available health facilities
 Irepodun/Ifelodun and Ekiti East LGAs have higher population of communities benefiting from available health facilities.

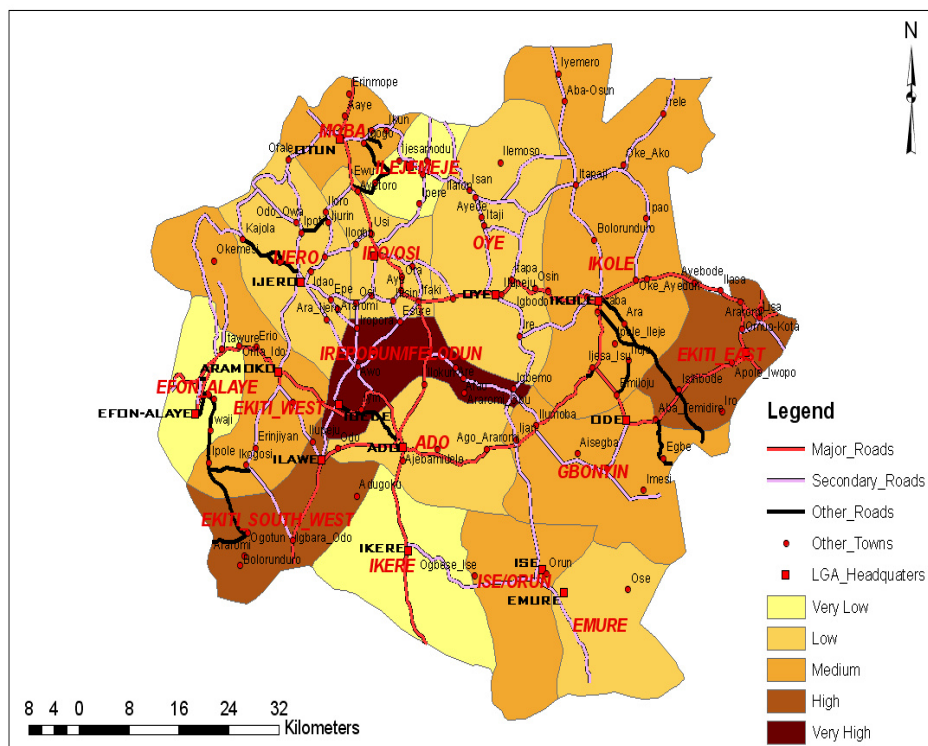


Fig. 8: Ratio communities benefiting from available health facilities to the estimated population
 Irepodun/Ifelodun has the highest ratio of communities benefiting from available health facilities to the estimated population

Water and Sanitation

There are many failed water supply schemes in Nigeria, and this in turn have made 80% of Nigerian population not to have access to portable clean water, diarrhea is more prevalent especially in urban areas, making the population to frequently visits hospitals or health centres. Rural women they have to go long distances thus wasting enormous amount of time fetching water.

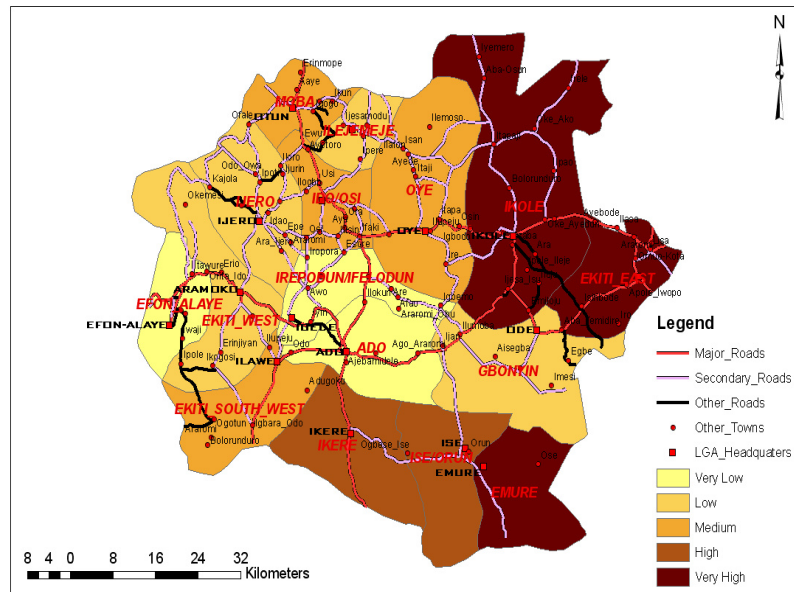


Fig. 9: Total number of fetching points per village

The figure above shows that Ikole, Ekiti East, and Emure LGAs have the highest number of fetching points per village, while that of Ado and Irepodun/Ifelodun LGAs are low.

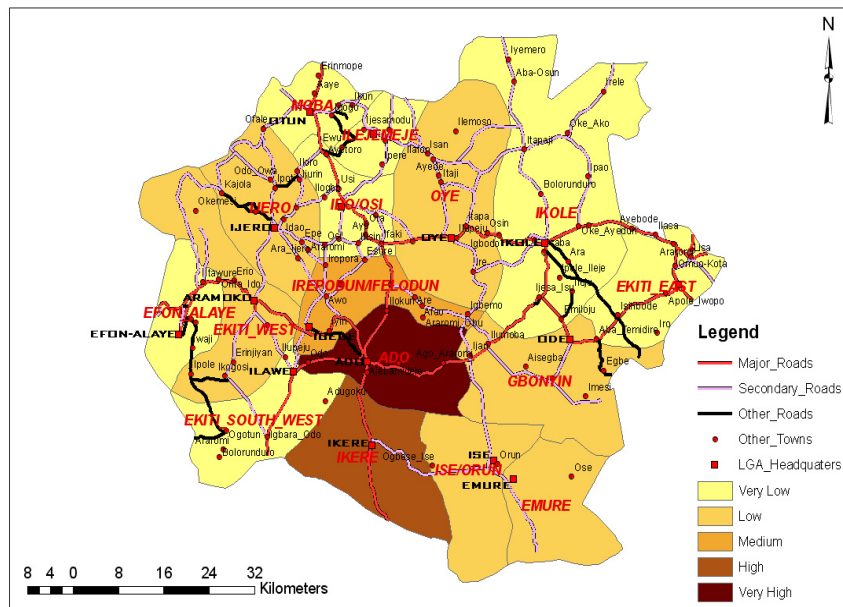


Fig. 10: Number of reported cases of water borne diseases

Ado LGA has the highest number of reported cases of water borne diseases. While that of Moba, Ido/Osi, Ilejemeje, Ikole, Ekiti East, Efon, and Ekiti South west are very low.

Transportation Sector

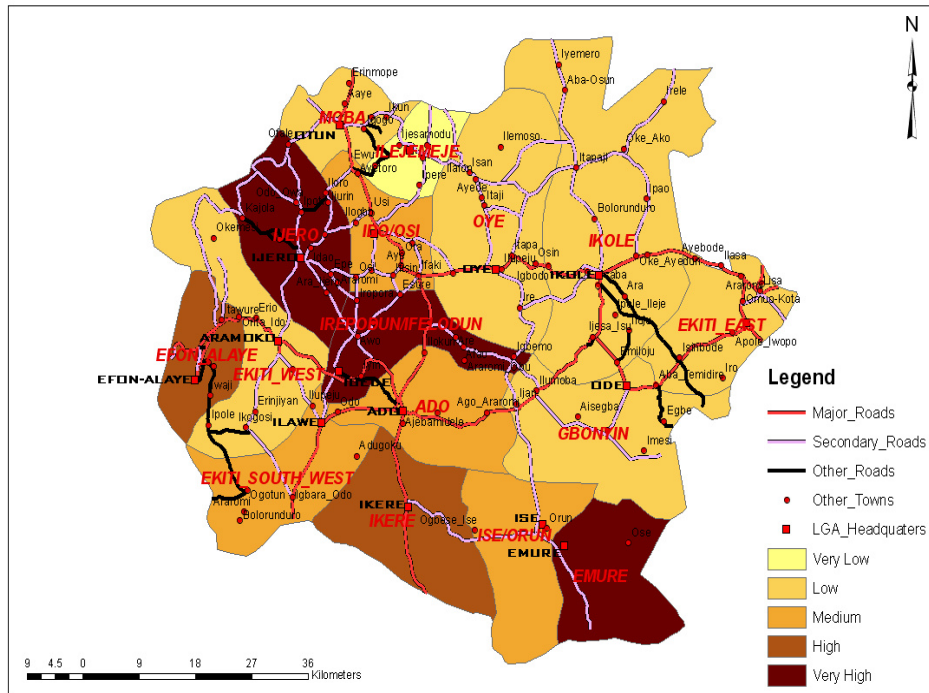


Fig. 11: Number of feeder roads

Ijero, Irepodun/Ifelodun and Emure LGAs have the highest number of feeder roads.

Electricity Supply

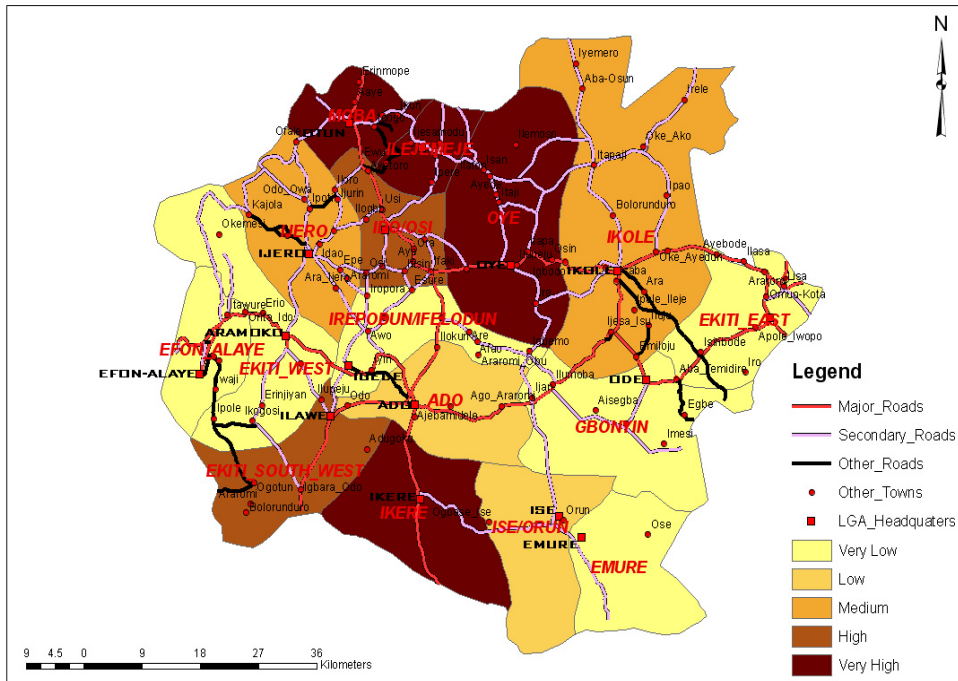


Fig. 12: Accessibility to electricity in communities

Ikere, Oye, Ilejemeje and Moba LGAs have the highest communities that have access to electricity.

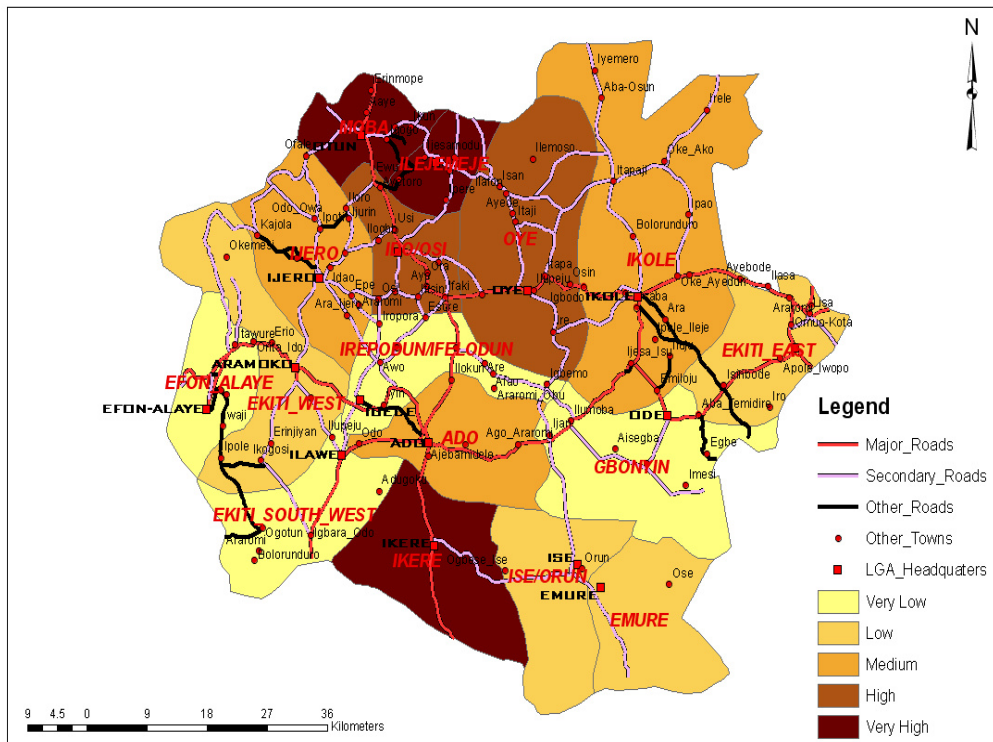


Fig. 13: Functionality of electricity in communities

Ikere, Ilejeje and Moba LGAs have the most functional electricity in the communities.

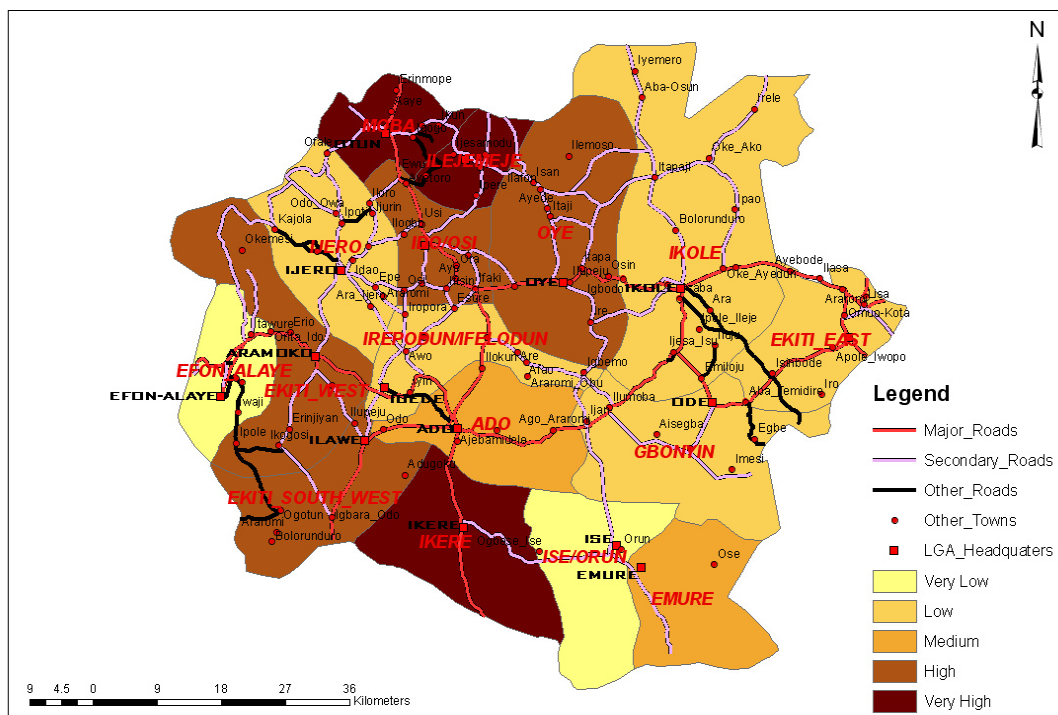


Fig. 14: Number of hours of electricity per day

Ikere, Ilejeje and Moba LGAs have the most number of hours of electricity in the communities.

Socioeconomic Sector

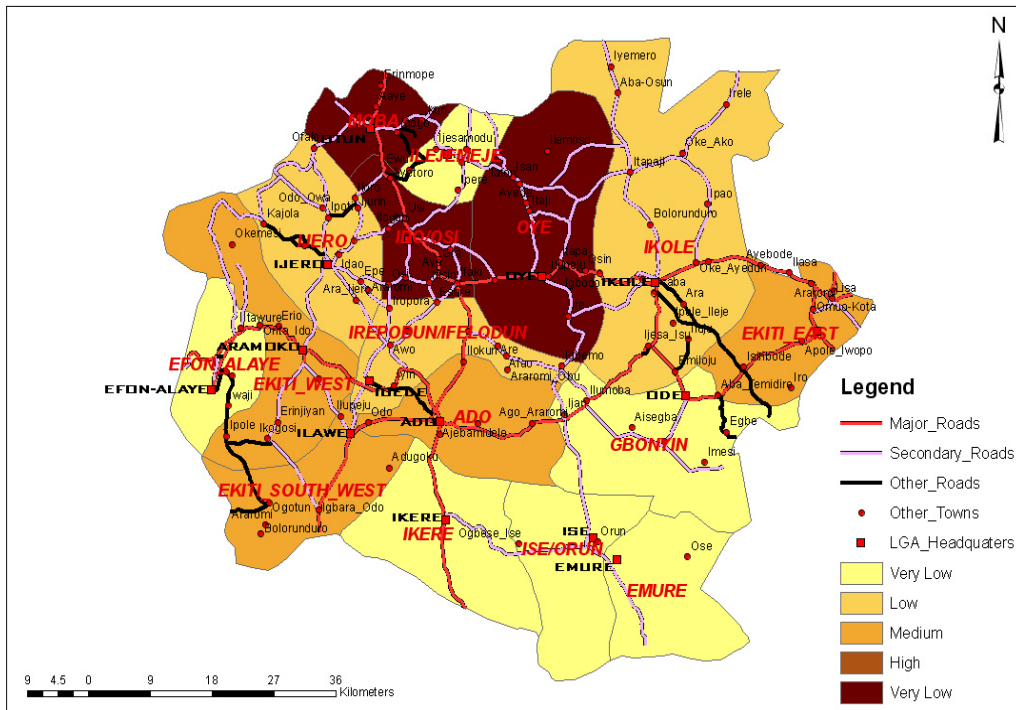


Fig. 15: Presence of multipurpose community center
 Moba, Ido/Osi and Oye have the highest number of multipurpose centers.

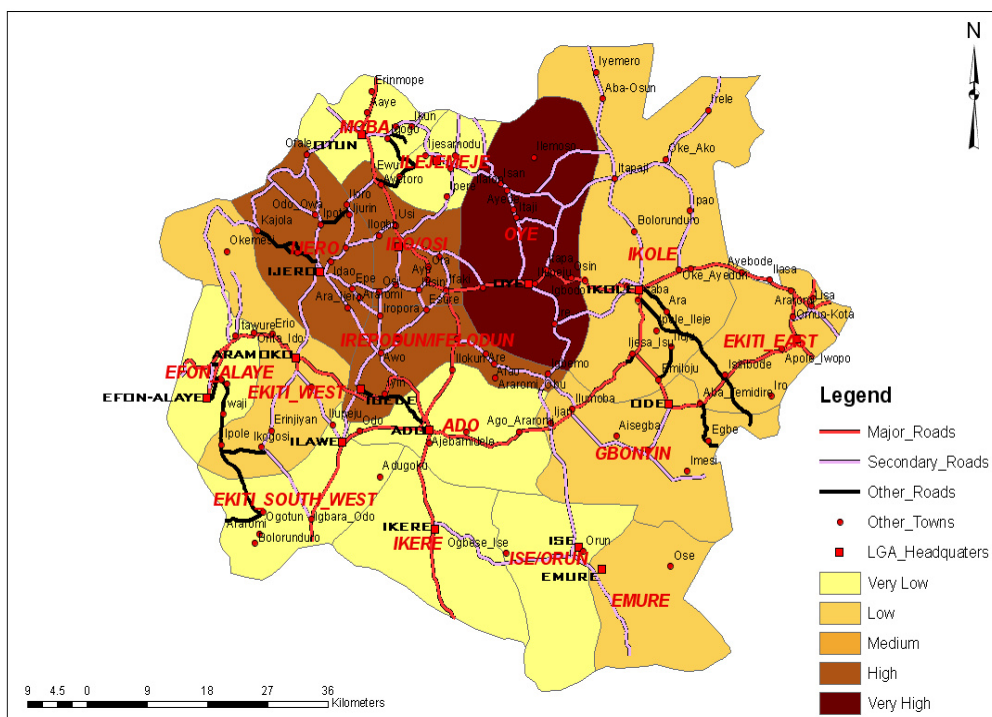


Fig. 16: Presence of Skill Acquisition Centre
 Oye L.G.A. have the highest number of skill acquisition centers.

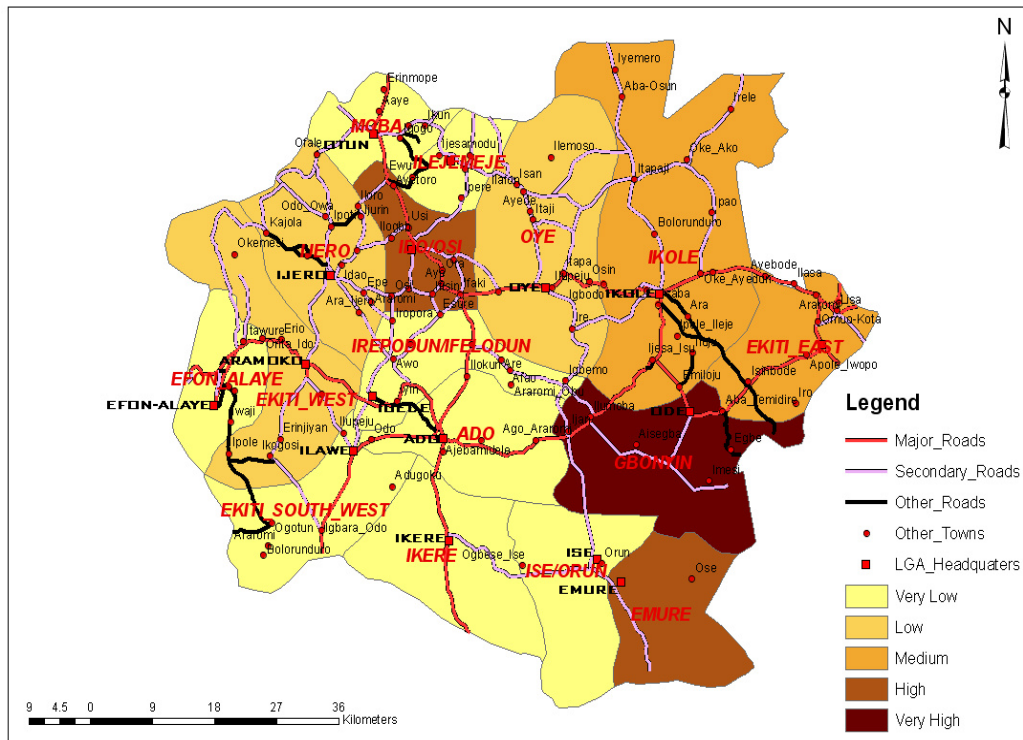


Fig. 17: Number of people trained at the center

Gbonyin LGA has the number of people trained at the these centers

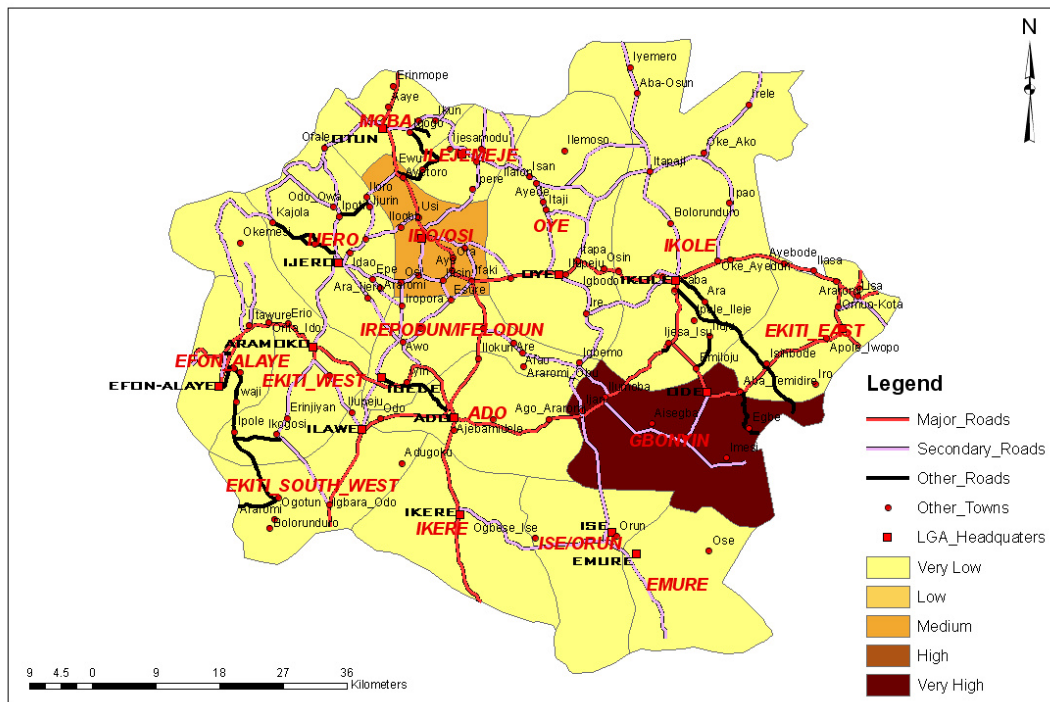


Fig. 18: Number of people utilizing the acquired skills

Gbonyin LGA has the number of people utilizing the acquired at the these centers, showing the same pattern in figure 17 above.

Natural Resources and Environment

Natural resources for the sake of this study are forest, water pasture and farmland. From the study it was found that there is a decline of agriculture production in the state, most people do utilize these sector much.

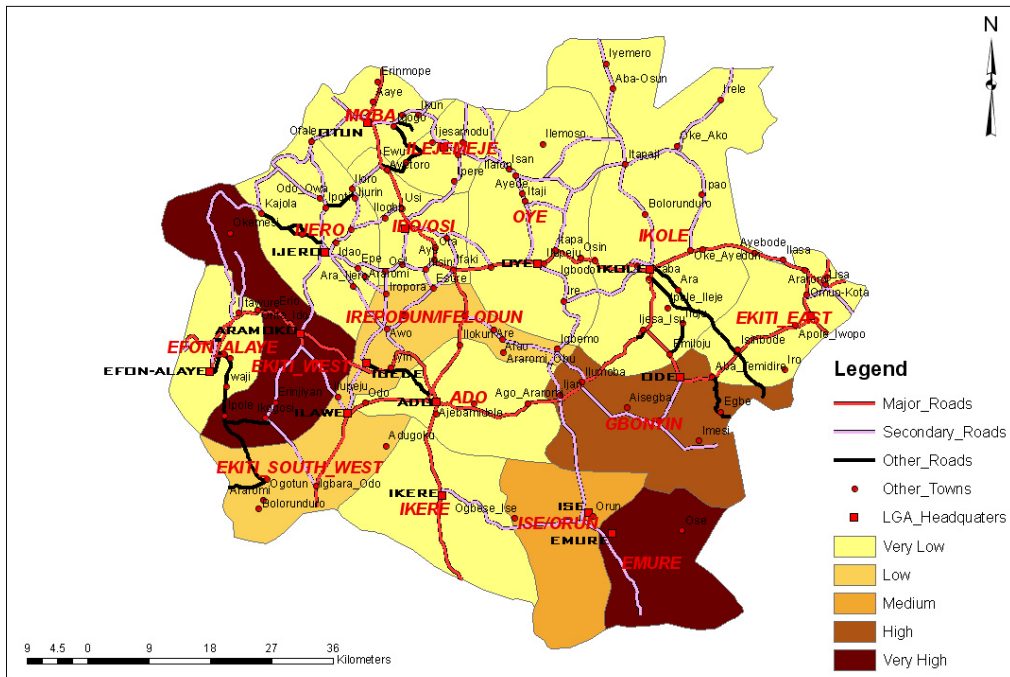


Fig. 19: Presence of forest reserve area

Ekiti West & Emure LGAs has the largest presence of forest reserves, compared to rest of the LGAs of the state.

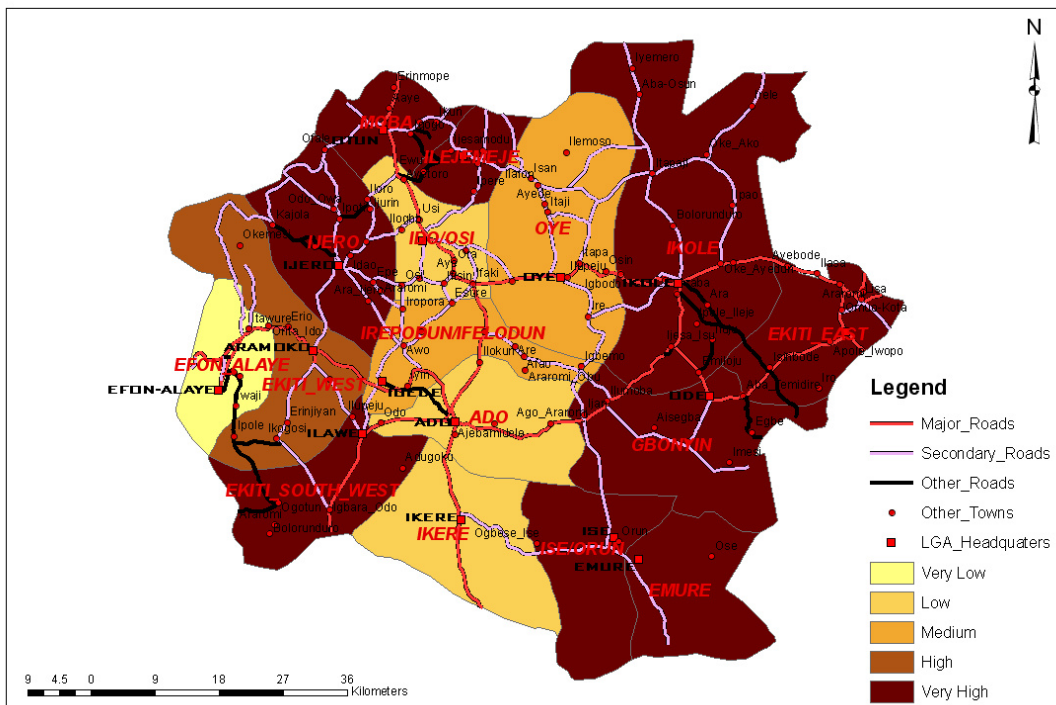


Fig. 20: Percentage of people defecating in bush and river banks.

Fig. 20 indicates that over 60% of the people of the state defecate inside the bush and river banks.

Conclusion

Nigeria ability to implement poverty reduction activity in sectors identified in this studies, can help improve the design of national poverty strategies, targeting and execution. Some relief could be generated by promoting the development and sustenance of small and medium scale ventures with potentials to gainfully employ some of the unemployed youths at the same time guarantee them some acceptable levels of income. Agro-industrial ventures which are based on the locally available agricultural raw materials and whose products are at least demanded locally could play this role. Those with exportable products have greater capacity to play this role because their ability to earn foreign exchange revenues may empower them to remunerate their employees better.

All over the country, there are several failed and non-performing agro-industrial ventures, which have declined to their current states due to one problem or the other. Some of these ventures are within the Ekiti State and revamping them may assist in ameliorating the unemployment problems in the State. Often times it may be desirous to intervene in the socio-economic development of a host community through Community Assisted Projects. There are usually several alternative opportunities for intervention. It is necessary to evaluate the alternative opportunities for resource requirements and potential impacts to determine which one will be most beneficial to the community.

References

- ADB. (2004). Poverty Definition, Measurement, and Analysis. *MONITORING ADB'S POVERTY REDUCTION IMPACT* Retrieved from <http://www.adb.org>
- ADF. (2000). Appraisal Report Community-Based Poverty Reduction Project. Abijan: African Development Bank.
- Agbi, M. O. (2009). POVERTY ALLEVIATION PROGRAMMES IN NIGERIA: WHAT CAN THE LEGISLATURE DO? *Legislative Digest* Retrieved 22/10, 2013
- EKCSDA. (2010). Baseline Survey for Ekiti State. Ado-Ekiti, Nigeria: Ekiti State Community & Social Development Agency.
- MFP. (2008). Poverty Indicators: Household Income and Expenditure Survey - 2006/07. Retrieved from www.statistics.gov.lk website:
- Obadan, M. I. (2010). POVERTY REDUCTION IN NIGERIA: THE WAY FORWARD *CBN ECONOMIC & FINANCIAL REVIEW, VOL. 39 NO. 4*. Abuja: Central Bank of Nigeria.
- Odeyemi, C. A., & Olamide, E. A. (2013). Spatial Autocorrelation and Temporal Statistics of Poverty Index in Nigeria. *European Journal of Humanities and Social Sciences* 26(1), 12-24.
- Ravallion, M. (1998). Poverty Lines in Theory and Practice. Washington, D.C. 20433, U.S.A.: The International Bank for Reconstruction and Development/THE WORLD BANK.
- WHO. (2013). Poverty. *Health topics*. Retrieved from <http://www.who.int/topics/poverty/en/> website:

The IISTE is a pioneer in the Open-Access hosting service and academic event management. The aim of the firm is Accelerating Global Knowledge Sharing.

More information about the firm can be found on the homepage:
<http://www.iiste.org>

CALL FOR JOURNAL PAPERS

There are more than 30 peer-reviewed academic journals hosted under the hosting platform.

Prospective authors of journals can find the submission instruction on the following page: <http://www.iiste.org/journals/> All the journals articles are available online to the readers all over the world without financial, legal, or technical barriers other than those inseparable from gaining access to the internet itself. Paper version of the journals is also available upon request of readers and authors.

MORE RESOURCES

Book publication information: <http://www.iiste.org/book/>

IISTE Knowledge Sharing Partners

EBSCO, Index Copernicus, Ulrich's Periodicals Directory, JournalTOCS, PKP Open Archives Harvester, Bielefeld Academic Search Engine, Elektronische Zeitschriftenbibliothek EZB, Open J-Gate, OCLC WorldCat, Universe Digital Library, NewJour, Google Scholar

