

IMPLICATIONS OF LAND RECLAMATION ON LIVELIHOOD, EMPLOYMENT, EDUCATION AND INFRASTRUCTURE IN SELECTED RIVERINE AREAS OF RIVERS STATE, SOUTHERN NIGERIA

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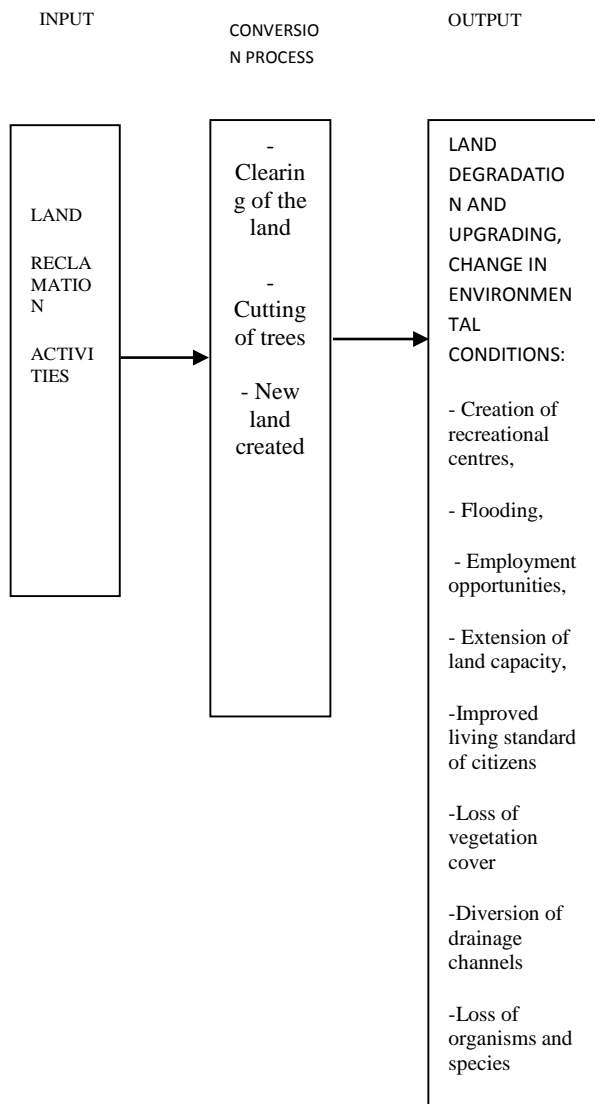
ABSTRACT	KEYWORDS
<p>The study evaluated the impact of land reclamation activities in the study locations. Land Reclamation is the process of gaining more land from the sea or coastal wetland or the expansion of land capacity for industrial and infrastructural development. Quantitative and qualitative research method was adopted for the purpose of this study. Field observations, questionnaire survey and landsat imagery of land cover changes of the year 1986 and 2018 were retrieved from the study area. The research revealed the spatial pattern of land reclamation; it also revealed the socioeconomic implications of land reclamation activities across the study area and its role in the delivery of developmental projects.</p>	<p>Land Reclamation, Rivers State Reclamation, Reclamation impact</p>

INTRODUCTION

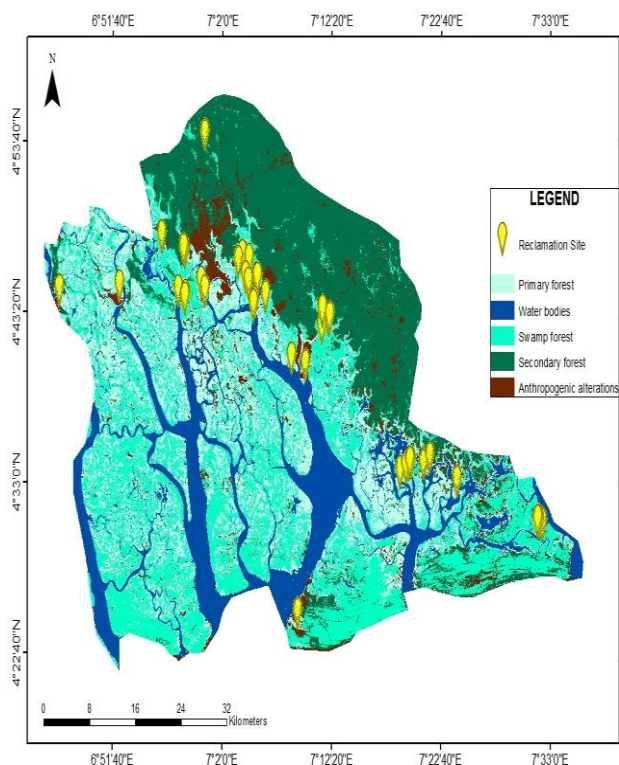
Technologies of dredging implemented in recent decades have made it possible for land to be retrieved under favourable capital outflows (Kolman, 2012). Recovery of land makes strategic urban planning initiatives sustainable in overcrowded areas and in order to satisfy the need for new homes, transportation and infrastructure. This tends to settle congestion, increases services, makes people's work and business appealing and add to the quality of life and productivity of the area as a whole. Fishing and farming are the two main conventional occupations of the residents of Rivers State. At the beginning of the colonial power, tree planting, lumbering and many other forestry practices were implemented and became the third main economic operation in the study region. Today, these operations also account for some 44% of jobs(Federal Government Nigeria, 2007). However farming operations have decreased as a result of the oil boom. Many rubber, palm oil and cocoa plantations have been abandoned. The economy of the country can also be perceived to be primarily guided by the informal sector in terms of the number of people involved.

Livelihood, Employment and Occupation

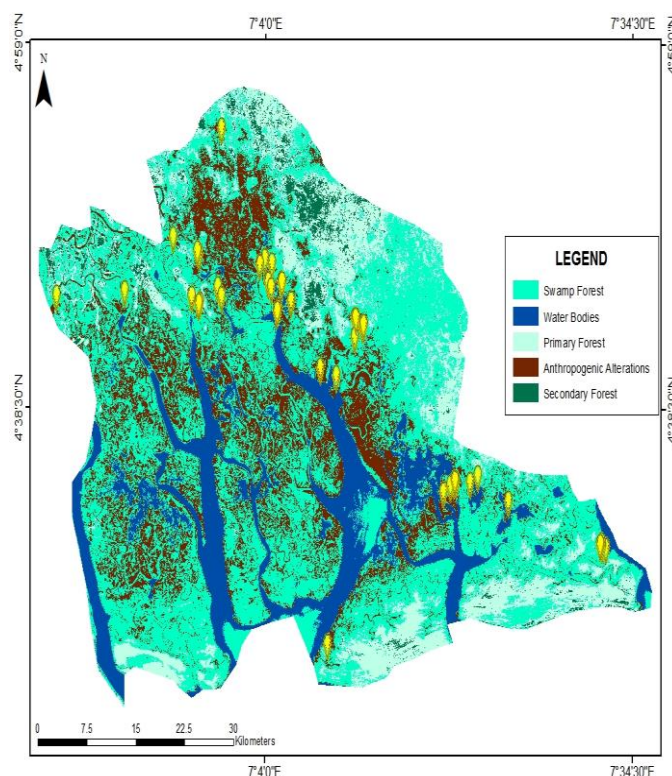
Niger Delta is expected to have a rapidly increasing population of more than 30 million people in 2005, accounting for more than 23 percent of Nigeria's overall population (Twumasi&Merem, 2006). In 2016, the National Bureau of Statistics estimated the population of this study area based on the 2006 census estimates for 2016 as Rivers State 5,198605-7,330904. The population density in the Niger Delta region is also among the highest in the country, with a population of 265 per square kilometer (Balouga, 2009). The residents of the region are primarily fishermen, farmers, small merchants, civil servants and other paying workers. These occupations are dominantly practiced by all age groups and sex in the study area. Farming as practiced in the area shows to be lucrative as major crops cultivated include cassava, plantain, cocoyam, vegetables, coconut, palm fruit, plantain, fruits bountifully. The region is rich in crude oil which has played a key role of attracting investors to the region and has also increased population and employment rate which has triggered the need for increase of land capacity in the region. In Bertalanfy's General Theory of Systems in 1951, natural geology is asserted to consist of interrelated subsystems and the collapse of one subsystem leads to improvements to the system as a whole



The field contributed to the collection of first-hand



1986 Image classification



2018 Image classification

Table 2: The Dimension of different Land cover types in parts of Rivers State

Land cover type	1986 area in sq.m	2018 area in sq.m
Swamp Forest	9,463,722,500	6,137,344,396
Water Bodies	112,775,503	1,585,973,646
Primary Forest	41,829,528	36,972,714
Anthropogenic Alterations	30,756,360	1,497,312,237
Secondary Forest	11,134,993	402,615,891

Table 3. Extent of land reclamation in Rivers State

STATE	EXTENT OF LAND RECLAIMED
Rivers	29,090,654 sq.m
Total Land Reclaimed	29,090,654 sq.m

Socioeconomic Implications of Land Reclamation Activities/Bio Data of Respondent

Figure 4 revealed the marital status of the respondent to the survey. From the analysis, there was an interesting record of respondents who are married with very few number of respondents widowed or widower. It was also revealed that across all communities married respondents played dominating roles in responding to questionnaire. Though, other categories of respondents were not less in responding to the subject as revealed in Figure 4

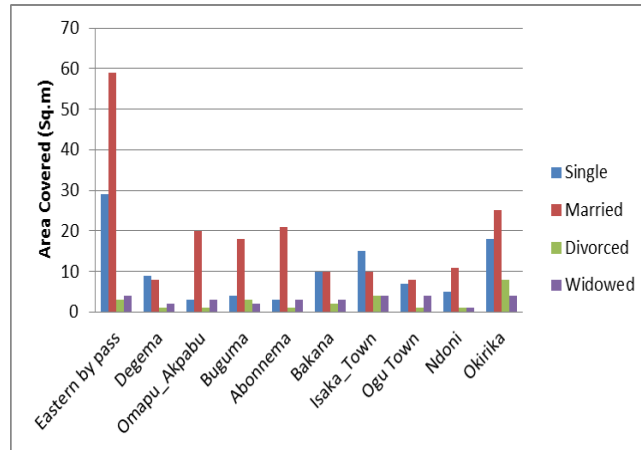


Figure 4 Marital Statuses of Respondents

The study of Figure 5 showed that respondents' educational performance is very well exposed to the level of tertiary education and the number of academic accomplishments reported in the report. In terms of study it is clear that the respondents of principal, secondary and tertiary credentials are available for all the populations sampled. This also demonstrated the degree to which the respondents value the subject.

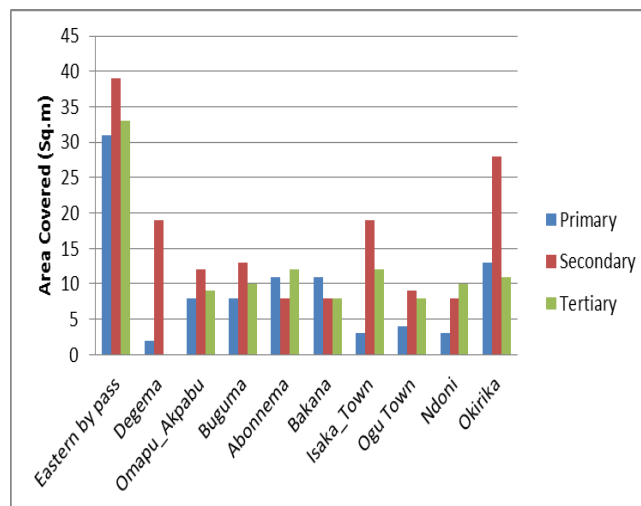


Figure 5: Educational Attainment of Respondent

Income categories of respondent as seen in Figure 6. The analysis indicates that most coastal neighbourhoods with high income level demonstrate extreme coastal activities and other small businesses that benefit from this level of income.

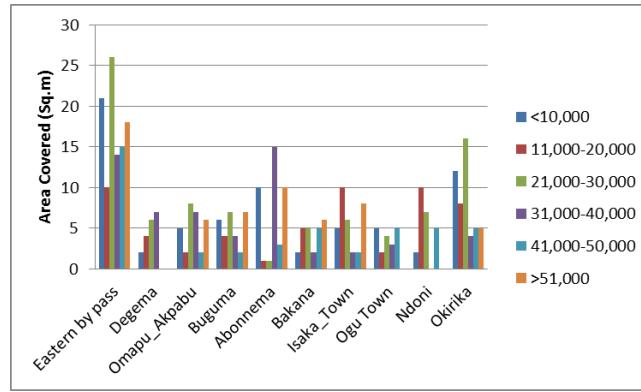


Figure 6, Income Category of Respondents

The profession of the answered as taken from the survey was seen in Figure 7. The result showed that civil servants and students sampled more in separate societies. There is also a more economic commitment, but the survey in all research communities did not show any prominence.

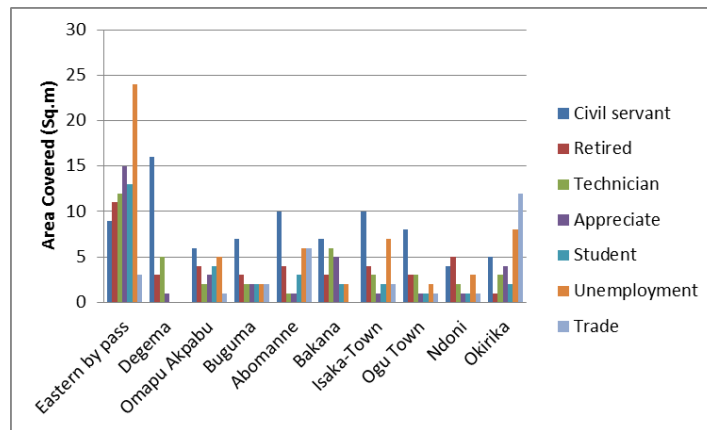


Figure 7: Occupations of Respondents

Figure 8 indicated that most of the research inhabitants are very happy with the nature of reclamation activities within the locality against the utilization of forest resources pre-reclamation. In communities like Degema, Ndoni, Ogu town and Bakana, people are usually indifferent in the idea of reclamation. Some groups like Okirika have an almost indifferent attitude towards such activities.

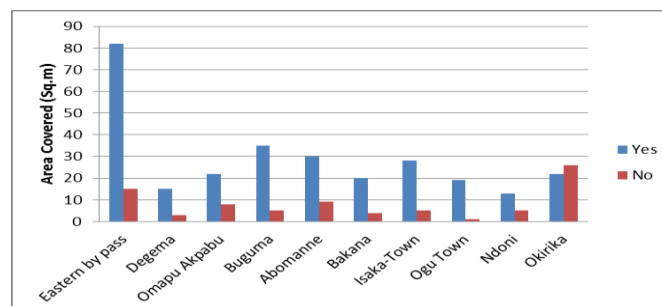


Figure 8 Areas Comfortable with Land Reclamation activities

Figure 9 Findings have shown that most populations have benefited in the sample from land reclamation activities. These advantages include the development of infrastructure and higher wages, the access to professional or unqualified employment and finally the primary foundation for human development and survival of any functioning community.

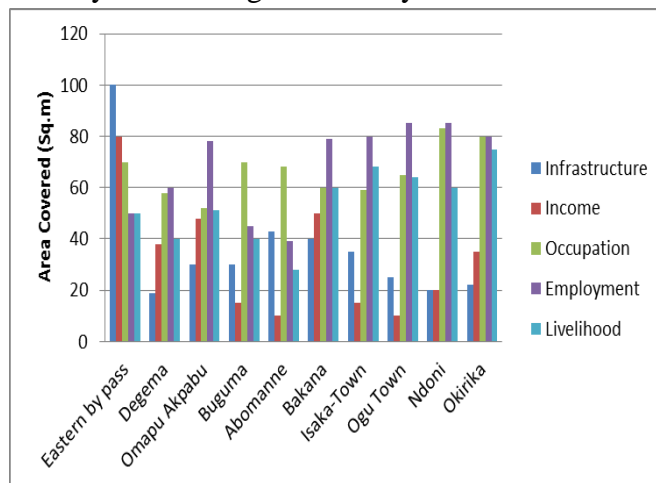


Figure 9 Socio economic Implications of land reclamation activities on the locality

Conclusion

Results have shown that most populations benefited from land reclamation activities. These advantages include the development of infrastructure and higher wages, the access to professional or unqualified employment, creation of recreational centre, employment opportunities, extension of land capacity, improved living standard of citizens, creation of new land and finally the primary foundation for human development and survival of any functioning community. Considering the full socioeconomic value of reclamation projects, there should be a fundamental step for guiding investors and public bodies towards efficient choices on resource allocation.

References

- Balouga, J. (2009). Niger Delta: Defusing the Time Bomb. International Association for Energy Economics.
- Federal Government of Nigeria (2007). Niger Delta Regional Development Master Plan Abuja.
- Kolman (2012) in Marco G (2012) Does Reclamation Pay? Assessing the socio-Economic effects of reclamation projects.
- Kuenzer, C. A. B., Steffen, G., Tuan V. G. & Stefan, D. (2014). Remote Sensing of mangrove Ecosystem. A Review Remote Sensing, 3(5).
- Kuenzer, C. Sybrand, V. B. Ursula, G. & Stefan, D. (2014). Land Surface Dynamics and Environmental Challenge of the Niger Delta Africa, Remote Sensing Based Analysis Spanning there Decade (1986 – 2013), Applied Geography 53.
- Lubeck, P. M. M., & Ronnie, L. (2007). Convergent Interest: United State Energy Security and Their Securing of Nigeria Democracy. Washinton: Centre for International Policy
- NCAB. (2005). National Coal Ash Board, NCAB Mission, Available at: www.coal-ash.co.il/english/index.html. Nigeria Country Report
- Twumasi, Y. & Merem. E. (2006): GIS and Remote Sensing Applications in the Assessment of Change within a Coastal Environment in the Niger Delta Region of Nigeria.