NIGER DELTA FLOODPLAINS AGROCADASTRAL MAPPING FOR POVERTY ERADICATION IN DELTA STATE OF NIGERIA

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TITLE: NIGER DELTA FLOOD PLAINS AGROCADASTRAL MAPPING FOR POVERTY ERADICATION IN DELTA STATE OF NIGERIA.
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1.0 SUMMARY

Niger Delta Floodplains in Delta State of Nigeria can be easily defined as fresh water seasonally flooded plains by the Banks of Delta of River Niger.

The Area of this study is at average of 250meters from the river banks inward to the land. This space of lands are seasonally cultivated by peasant farmers both for subsistence and commercial purposes.

AgroCadastral Mapping (ACM) shall form the basis of the study to explore the opportunities and resources available for the farmers. The ACM will be limited to Fresh water parts of the flood plains in the Niger Delta of Delta State with due focus on the following:

- Present State of Poverty Level.
- Using ACM for Cooperative Societies formations and Loans for the Farmers.
- Flood Disasters Control and Management.
- Poverty Eradication.

The existing Agricultural practice and Government need for ACM for good Land Management will be studied. Literature Reviews with Area of Study Oral Questionnaire with the Farmers shall form the basis for the Methodology of the Study

Figure 1: Map of Delta State as Inset. Source: Google Delta State Map

Delta State of Nigeria is on the Western Side of Niger Delta, the Geographical setting of the area of study is a seasonal wetland of high flood line of submergence at the peak of Rainy Seasons and low or no water coverage in Dry Seasons when there will be little or no rainfall for months. The window of months of dryness is the period of farming and easy access to land for agro allied economic activities in the area.

Flooding is a natural phenomenon and like other Natural Environmental events, the Niger Delta people have in the past adapted to flood natural occurrence. However over the years, land use/land cover change and poor land use planning have exacerbated the impact of flood disasters. (Mmom et al 2013).

Flood Plain Farming in the area of study was discovered to follow the flood pattern of the plain. Farming is with strict alliance with flood and rainfall pattern.

Food Crops are the major crops of the farming; the planting and harvesting are all within the cycle of the high annual rainfall ranging between 300cm to 450cm with double maxima characteristics of July and September peaks.

2.0 AGROCADASTRAL MAPPING AREA OF STUDY:

The need for AgroCadastral Surveys cum Mapping in Delta State is limited to large scale farming. AgroCadastral Surveys are usually to get the field boundaries which for layout of land use and in classifying land on the basis of soil capabilities or productivity in a cadastral series for many administrative purposes including Tax assessment. (www.fao.org).

AgroCadastral Mapping has a bold hand in hand with Geographic Information Systems using Geomatics Technology to enable farmers to map and project current and future fluctuations in the weather attributes. (www.geospatialworld.net)

The Area of study were defined using two selected linear locations along the rivers in the Niger Delta Zone of interest.

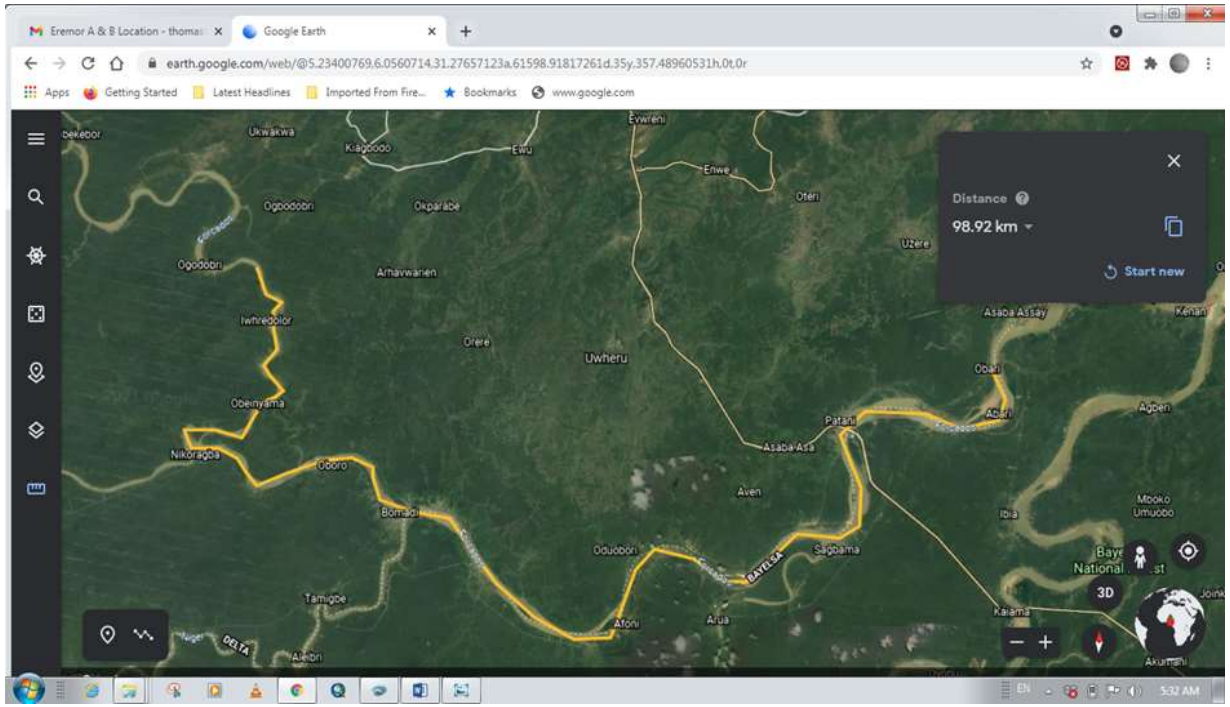
Google Imagery was used to select the towns and farms along the flood plains.

The Area of Study was randomly selected from the Google Imagery using towns along the banks of the river as a reference of study.

All settlements are linear facing the river with extension inland.

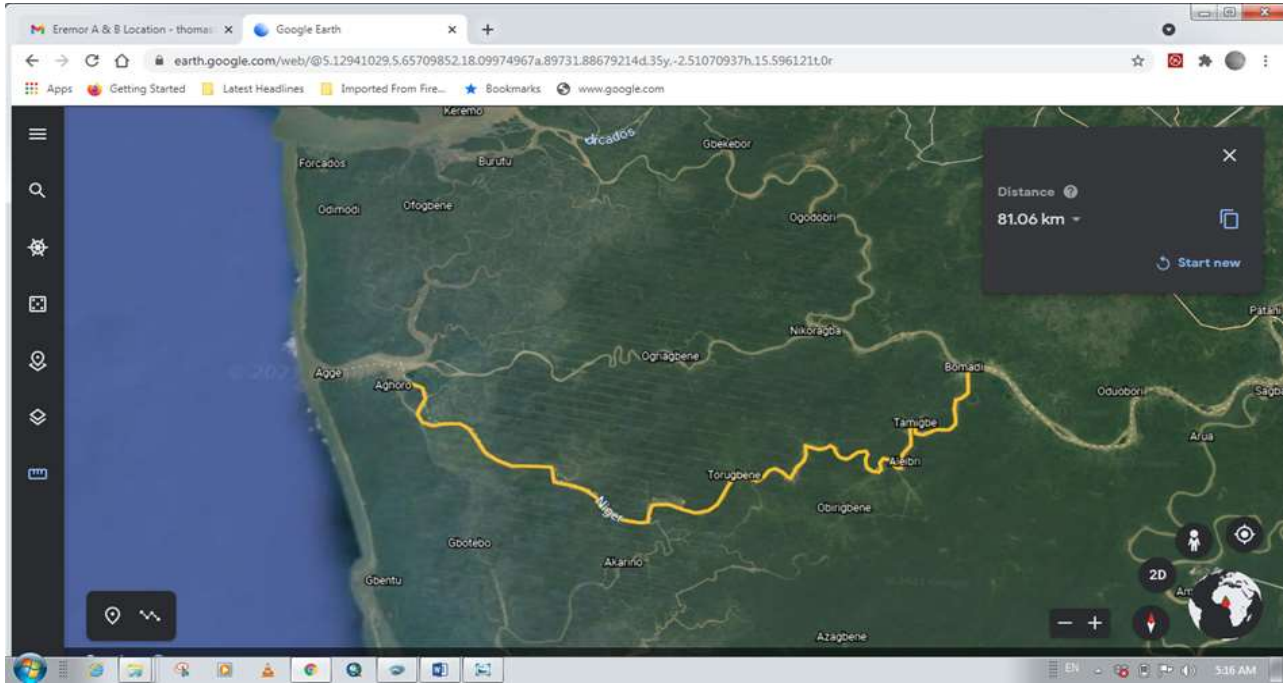
TWO LINEAR ROUTES WERE USED FOR THE STUDIES. SEE THE ATTRIBUTES HERE UNDER

S/N	TOWNS	LONGITUDE	LATITUDE	REMARKS
1.	OBARI	6* 16” 57”E	5* 15” 51”N	FORCADOS
2.	ABARI	6* 17’ 14”E	5* 14’ 10”N	FORCADOS
3.	PATANI	6* 11’ 26”E	5* 13’ 46”N	FORCADOS
4.	ANUBEZE	6* 14” 49”E	5* 13” 57”N	FORCADOS
5.	ODUOBORI	6* 04’ 04”E	5* 08’ 39”N	FORCADOS
6.	OLODIAMA	5* 58’ 14”E	5* 09’ 31”N	FORCADOS
7.	OBORO	5* 52’ 41”E	5* 11’ 29”N	FORCADOS
8.	NIKORAGBA	5* 48’ 05”E	5* 11’ 30”N	FORCADOS
9.	OBEINYAMA	5* 49’ 42”E	5*13’ 32”N	FORCADOS
10.	IWHERDOLOR	5* 50’ 43”E	5* 16’ 24”N	FORCADOS



Route 1: Obari to Iwherdolor (98.92km)

S/N	TOWNS	LONGITUDE	LATITUDE	REMARKS
1.	BOMADI	5* 55’ 22”E	5* 09’ 50”N	NIGER
2.	TAMIGBE	5* 52’ 49”E	5* 06’ 36”N	NIGER
3.	ALEIBRI	5* 52’ 40”E	5* 04’ 23”N	NIGER
4.	TORUGBENE	5* 43’ 53”E	5* 03’ 18”N	NIGER
5.	NDORO	5* 36’ 44”E	5* 04’ 31”N	NIGER



Route 2: Bomadi to Ndoro (81.06km)

3.0 METHODOLGY:

The methodology was simple and straightforward:

- Fifteen Communities were used in the study on the linear stretch along the Two Rivers Floodplains; all in Niger Delta of Nigeria.

- Most were along the Natural Boundaries of Delta and Bayelsa States of Western Niger Delta of Nigeria. All the areas are freshwater with rainforest.

- Major Economic Activities were Fishing, Farming, Lumbering and hunting all at peasant levels.

- Infrastructure Deficits very obvious. No Survey office or Hydrological Stations were found in the vicinity of studies.

- Settlements were mainly rural and linear.

Oral Questionnaires were deployed by visual observations and random visits to the Area of Study asking leading questions from the peasant famers who were mostly WOMEN and their CHILDREN. The floodplains used for farming were mostly less than 250meters off the bank lines and less than ONE ACRE in size.

A woman paddling Cassava Stems in overloaded Canoe Manually. See the Farm at Background. Source: Hydroark Library 2021

Question asked in form of Questionnaires were just TWELVE while other TEN were done by observations and inferences:

DIRECT QUESTIONS:

1. What is the size of your farmland.
2. Any Survey done to determine the size.
3. Any Governmental support.
4. Any cooperative society for the farming
5. Peasant or Commercial farming system.
6. Any Flood Control mechanism.
7. Any record of income from the farming.
8. Any further food processing.
9. Why only Women and Children.
10. Health Care Delivery System.
11. Flood Disaster Experience.
12. Mode of Transportation.

INFERENTIAL QUESTIONS:

1. Crops and Mode of Farming
2. Transportation of Farm products
3. Why no men on farms
4. Any Survey Cadastral Attributes in the vicinity.
5. Any Government Survey office
6. Any Town Planning office
7. Any Agric Extension Office
8. Any hired labors on farmland
9. Hydrological Station to monitor flood
10. Any Governmental Linkage

The Results of the Study in the Table

S/N	QUESTIONS	POSITIVE	NEGATIVE	REMARKS
1.	DIRECT	5%	95%	POOR
2.	INFERENTIAL	3%	97%	POOR

The responses from the samples of farmers was a reflection of big potentials and possibilities if there is any POLITICAL WILL to turn poverty to prosperity for the people: See Below

Potentials and Target Possibilities as Studies Reflected

S/N	ATTRIBUTES	PAST	PRESENT	FUTURE
1.	SIZE OF FARM	< 1 ACRE	< 1 ACRE	> 5 ACRES
2.	EQUIPMENT	MANUAL	MANUAL	MECHANISE
3.	INCOME PER ANNUM	< NGN100,000	<NGN100,000	>NGN500,000
4.	LABOUR	WOMEN	WOMEN	MIXED
5.	CROPS	FOOD	FOOD	FOOD + CASH
6.	CADASTRAL	NON	NON	NECESSITY
7.	FLOOD CONTROL	NON	NON	NECESSITY
8.	PLANNING	NON	NON	NECESSITY
9.	COOPERATIVE SOCIETY	NON	NON	NECESSITY
10.	TRANSPORTATION	MANUAL	MANUAL	AUTOMATED
11.	HEALTH CARE	NON	NON	NECESSITY
12.	POPULATION CONTROL	NON	NON	NECESSITY

These twelve attributes were identified to be focal points for Poverty to Prosperity for the peasant farmers and the populace on the Flood plains of Niger Delta in the area of study.

Poor Housing System and Health Care Delivery System. Source: Hydroark Library 2021

4.0 POTENTIALS AND POSSIBILITIES:

- The mapping of the floodplains can easily be done in the Dry Season. Method of Mapping can be done via Satellite Imageries with Mosaics. All Mapping must focus on Towns and Villages.

- Farming Seasons must be defined and Farmers Population Census must be done.

- State Government Mapping Agency and Ministry of Agriculture will need to have a synergy of purpose.

- Cooperative Societies to be created and Leadership Lines with Responsibilities well defined.

- Funding to be insulated from politics.

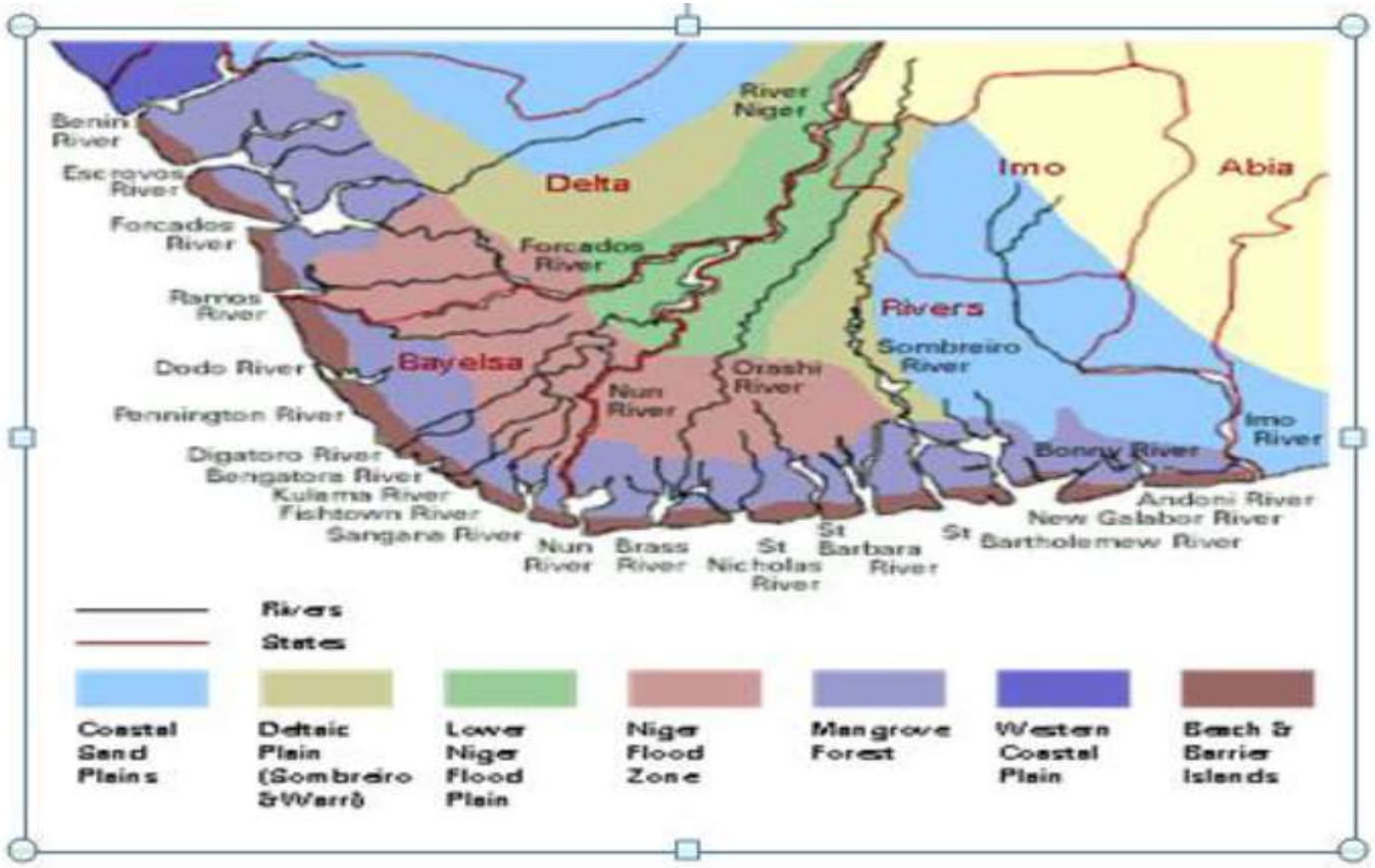
- A separate AGENCY to be in charge and report to Governor of State.

- Self-financing after seed funding.

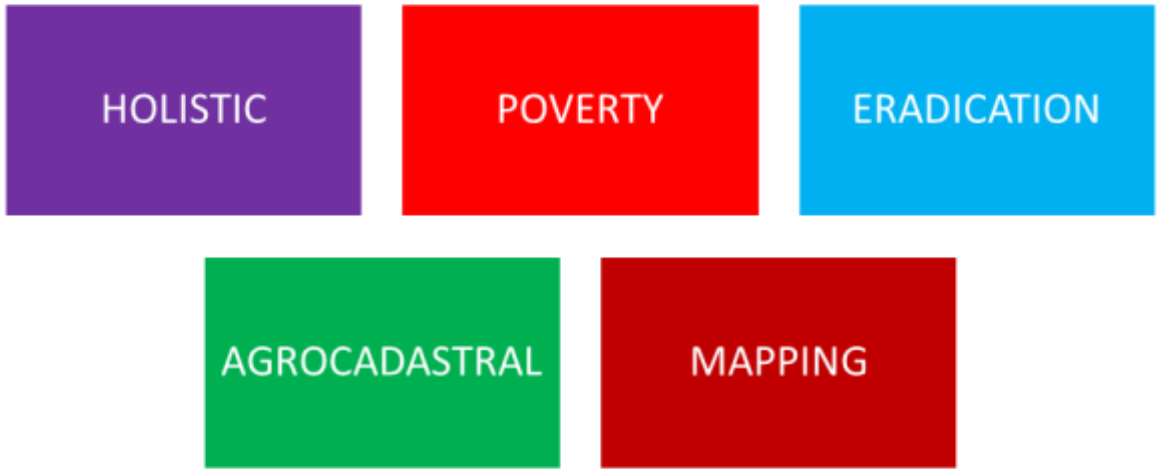
- Holistic Approach and good focusing on attributes.

- Professionalism to be hallmark in all engagements.

- Source for Non-Governmental Organization Supports and Pilot Scheme Approach



Map of the Niger Delta showing the various river systems and floodplains. Source: Mmom 2013


HOLISTIC
POVERTY
ERADICATION
AGROCADASTRAL
MAPPING

Lumber Boy and a Child in Niger Delta with a Motor Saw in the Canoe.
Source: Hydroark Library 2021

5.0 CONCLUSION:

The need for AgroCadastre Mapping is a reconstruction agenda rather than social modeling. The objective of the study is to create a foundation for further development and poverty eradication programme.

Its main aim was to identify the characteristics of a society that is regularly flooded in terms of its vulnerability and resilience to survive and make a good living. Types of data collected were, primary data using verbal questionnaires and complemented by personal interviews and secondary through literature review process.

The collected data were analyzed using qualitative techniques.

Basically, the data were analyzed using frequency tables and percentages. Qualitative data were analyzed by associating responses and interpretations with simple inferences.

Before the discovery of crude oil, agriculture was the dominant occupation of the people. Crude oil was discovered in commercial quantity in the region specifically in the present Bayelsa State in 1956 (Omofonmwa and Odia, 2009). Since then oil exploration and exploitation has continued resulting into what is termed environmental destruction due to neglect and less concern of the multinational companies in environmental management in the area. Apart from environmental degradation resulting from Oil & Gas mining activities, the Niger Delta is plagued with the problem of perennial flooding and shoreline erosion which has accounted severe loss of lives & properties in the region owing to its physiographic configurations.

The Niger Delta with a population over 10 million people is one of the industrial and commercial hubs of Nigeria. It is the home of Nigeria's Oil and Gas Industries and a commercial nexus in Nigeria because of its coastal location. In fact, it is witnessing rapid economic growth and little or no development. (Mmom 2013)

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BIOGRAPHICAL NOTES

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