

Critical Factors in the Sustainability of Systematic Land Titling and Registration in Ondo State, Nigeria

Caleb Olutayo OLUWADARE and Ayodeji Iyanu ABIDOYE, Nigeria

SUMMARY

Recent advances in land administration aimed at making land titling and registration easy for citizenry. Considering the potential benefits of titling and registration both to the citizens and government, Nigerian government through the Presidential Technical Committee on Land Reform adopted Systematic Land Titling and Registration (SLTR) approach and selected Ondo and Kano States for the pilot survey. Five years after the commencement of the project in Ondo State, the project had ceased to continue. The paper investigated the fundamental factors that bear on the sustainability of systematic land titling and registration in Ondo State.

Primary and secondary data were used in the study. Primary data were obtained through the use of questionnaire administered on landowners and government agencies responsible for land titling and registration. Interview was conducted on selected heads of government agencies. Secondary data were obtained from the records of Land Record Bureau. Purposive sampling of landowners was carried out. Data were analyzed using frequency distribution and percentages analyses. A thematic analysis of interviews was carried out.

The paper found out among other factors that capacity building, cost of financing and political will of the executive administrator of the state are critical to the sustenance of systematic land titling and registration in Ondo State. The paper recommended among other things that adequate consultation and sensitization should be done using bottom-top approach prior to the implementation of SLTR to prevent system failure. The policy implication of this research finding is that SLTR could be resuscitated in the study area and give direction to developing nations that intend to embark on systematic land titling and registration. The paper concluded that the fit-for-purpose model if employed, offers a promising strategy for sustainable systematic land titling and registration in Nigeria.

Key words: Land titling, registration, cadastre, sustainability, fit-for-purpose.

Critical Factors in the Sustainability of Systematic Land Titling and Registration in Ondo State, Nigeria

Caleb Olutayo OLUWADARE and Ayodeji Iyanuoluwa ABIDOYE, Nigeria

1. INTRODUCTION

A report of the Nigeria's Presidential Technical Committee on Land Reform (PTCLR) in 2013 and studies by Kufoniyi 2015, Babalola *et al* 2015, Oluwadare 2016 and Kufoniyi *et al* 2019 revealed that not more than 3% of the land in Nigeria has been registered in the last 130 years since formal land registration began in 1883.

Accessibility to land and security of tenure through land registration have been established to be key factors in liberating masses from the shackles of poverty (Dowell and Leaf, 1992; De Soto, 1993; Peter Kuntun – Mensah, 2003; Oluwadare and Kufoniyi, 2019). De Soto (1993) established that there is a strong relationship between land titles and land prices. World Bank Ranking (2014) has also revealed and as observed by Adeniyi (2018) and Oluwadare and Kufoniyi (2019) that correlation exists between property registration and ease of doing business. It was observed that the countries with proper system of land registration thrive in business than the countries with less efficient registration system.

As a result, governments across the globe through various policies are involved in one land reform project or the other with the aim of alleviating and eradicating poverty menace in their respective states. International communities are being sensitized on the need to adopt the best practices in making security of tenure appealing and means of acquisition of title document less cumbersome for rapid development. One of the adopted strategies of tackling the challenges of land registration on large scale and at a reduced cost is systematic land titling. This approach to land registration has been reported to be successful and effective in both developed and developing countries around the world such as Cambodia, Ghana, Rwanda, Uganda, etc (Grimsditch, Leakhana and Sherchan, 2012; Addai, A. , Owusu, J., Asenso-Gyambibi D. and Opoku-Gyamfi, Y. , 2011 and RGC, 2005; IEG, 2013)

In Nigeria, Pilot projects involving the use of Systematic Land Titling and Registration (SLTR) approach commenced in 2011 under former President Goodluck Jonathan with two states chosen as pilot states: one in Kano (Savannah Region of the North) and the other in Ondo State (Forest Region of Southwestern Nigeria). The project was executed with collaboration between the State Government, the Department for International Development (DfID) and PTCLR. Earlier report of the study carried out in Ondo State to investigate the effectiveness and scalability of the method revealed that the project was acceptable to the landowners in the study area (Oluwadare, 2016). Also, within a period of nine (9) months, 14,626 parcels were demarcated and their respective owners ready to be issued with certificate of occupancy (Oluwadare, 2016; Oluwadare and Kufoniyi, 2017). Likewise in Kano, though no empirical study has been carried out on Kano project regarding its efficiency

and sustainability, it is apparent that the project is still ongoing in Kano State with over 150,000 parcels titled.

Conversely, barely five years after the commencement of the project in Ondo state, SLTR project had ceased to continue in the state and the government had reverted to the sporadic method of land titling and registration despite the inefficiencies earlier observed in sporadic approach. It is therefore pertinent to investigate the various factors responsible for the sudden relapse into the old, slow and expensive sporadic method of land registration. Moreover, this paper examined these factors based on the peculiarity of the study area. The next section of the paper presents an overview of precedent researches on contributory factors to the sustainability of SLTR vis-a-vis guiding principles for Fit-for-purpose land administration. This is followed by an overview of the current registration method in the study area. A description of the data employed; discussion on the findings of the study; the way forward and conclusion were presented in succession.

2. LITERATURE REVIEW

2.1 Systematic Land Titling and Registration in African Countries

In a study conducted by Agnes, Joseph, Daniel and Yaw (2011), the situation of land registration is worst in the continent of Africa and consequently attributed the slow rate of the continents development to a poor mechanism of handling issues relating to land governance. Consequently, most countries still struggle with the problems of maximizing the large and massive arable land as gifted by nature for economic benefits. Despite a massive dependence on agriculture and natural mineral resources for economic survival, most African states are yet to come to terms with a flexible formal land administration system with the potentials of removing her people from abject poverty. Whereas, agriculture, natural resource use and other land-based activities are fundamental to enhancing quality of life as it relates to social and economic independence (Agnes *et al*, 2011). However, about 75% of the population of the global people-to-land relationships is documented poorly or not documented within the legally recognized land administration domain and that the percentage may be arguably higher in poorly mapped nations (Kufoniyi, 2015 and Lemmen, Bennet, McLaren and Enemark, 2015). Cadastral surveying, also variously known as Property Survey or Boundary Survey constitutes about 70% of discrete survey activities in Nigeria (Gbadegesin, 2013) and serves as the core aspect of land registration.

Addai, Owusu, Yaw and Gyambibi (2011) examined the possibility of SLTR approach to land registration in Kumasi, Ghana by adopting Global Positioning System (GPS), digital camera and existing documents of land parcel for data capturing. The study adopted the Geographic Information System techniques for the implementation of SLTR by developing SLTR databank (Land Data Management System) that can manage land data effectively and efficiently. The study covered 674 properties, 266 (40%) of which were Government and 408 (60%) of which were Private property respectively. The study showed that only 14% (59 of 408) private properties under study had formal legal documents. The study also revealed lack of due process on the part of government as evidences show that both old and new properties owned by the Government of Ghana had no formal legal documents. The only documents

possessed by recent properties were the site plans. The study concluded that SLTR implementation in the study area has improved title registration process at a reduced cost.

Deininger *et al* (2008) confirmed that Ethiopia has implemented one of the largest, fastest and least expensive land registration and certification reforms in Africa. Its significant impact on the socioeconomic life of the people is evident in the level of investment and land productivity. Though the level of accuracy attained at the first stage of certification was low, yet it was fit for the purpose of improving the economic well-being of the citizenry. Second stage of the certification allows precise definition of the geographical location using Orthophoto or satellite imagery, GPS etc. Holden *et al* (2009) found out in another study carried out in Ethiopia that the productivity of titled land is 40% higher than those without title. One of the strengths of the system was transparency achieved through broad participation (Bezu and Holden, 2014).

In Rwanda, the Land tenure regulation comprises a framework that resolves gender and economic segregation which allows the entire citizen to have equal and easy access to land. Adopting SLTR, the Land Tenure Registration Support (LTRS) initiated by the DFID registered all the land in Rwanda between February 2010 to August 2013. Total land registered amounts to 10.3 million parcels for the first time costing UK£3.42 (US\$5.47) and UK£4.05 (US\$6.48) per parcel. The initiative adopted a low-cost, citizen participation process of land tenure regularization (LTR). The project was adjudged to be sustainable as it continues to improve from the time of commencement. However, its sustainability can be attributed to the political commitment that gingered a detailed LTRS flexible framework and procedures. The framework focused more on the methodology of achieving the objective of surveying all the land and issuing a formal title for tenure security. The land claim disputes were also resolved without legal procedures by local adjudication committee; decisions made on land in dispute are sacrosanct. In the study carried out in Rwanda, DFID (2014) cautioned that Rwanda's SLTR project could not be a 'One-solution fit-all-Model' for other countries. It concluded the study by looking at the replicability and scalability of approach in Rwanda and noted that in terms of replicability that local implementing institutions, political will, adequate legal reforms and level of accuracy are required. In terms of scalability, the key elements are survey techniques. There also, general boundary principles enable large scale SLTR to happen quickly. While the orthophoto method was used in Rwanda, standard cadastral survey method was used in Botswana

Oluwadare (2016) examined the sporadic and SLTR system in Ondo State by examining the perception of land owners, the time involved and accuracy of the methodology used for boundary demarcation in that regard. The study revealed that the procedure for systematic method is essentially computer based and space-enhanced, accomplishing a faster rate about 1: 8 than the sporadically operated method in Ondo state. The study further established that the systematic method was more efficient in terms of cost and time for about 10:1 and 6:1 respectively compared to the sporadic method. The study showed both methods were not significantly different in terms of the accuracy revealing a p -value < 0.05 and thus concluded that either method is reliable for boundary demarcation. The view on acceptability of the space-enhanced systematic land titling and registration method in the area was of the

majority. The result showed about 60% (601) of the users (professionals, land owners and government land officers) of the spaced-enhanced method of land titling indicated that it is effective and satisfactory. Furthermore, over 70% of the sampled population (91.4% of the professionals and 72.3% of the landowners) indicated that the space-enhanced procedure should be scaled up to other parts of the country.

Some of the identified problems with SLTR in Ondo State by Ige and Eniyansoro (2017) were poor public sensitization considering the importance of land registration as only 42% of applicants were willing to pay for the certificate. Though public displays were held in the pilot study areas (Akure South, Akure North and Ifedore), only 3,500, 1,033 and 1,325 respectively were cleared out of the demarcated parcels. With the official fee for C of O based on SLTR at N25, 000 and N20, 000 payable for parcels of land in respective Local Government Area; only about 120 participants were granted the Statutory Rights of Occupancy in all.

In a related development, Ige and Eniyansoro (2017) identified insufficient funding for project implementation, resistance from Private Land Surveyors and absence of harmonized Solutions to Open Land Administration-based (SOLA-based) C of O for SLTR and Sporadic C of O as threats to successful implementation of SLTR in Ondo State.

Studies by Oluwadare (2016), Ige and Eniyansoro (2017), Kufoniyi and Oluwadare (2017) on SLTR in Ondo State, revealed that 14,626 parcels of land were demarcated within a space of nine (9) months while only 633 certificates were ready using sporadic approach. The success rate of SLTR in Rwanda as the concept on LAS shows the viability of the methodology for improving the conventional method of sporadic land titling and registration in ensuring that a parcel of land be registered within a few days as against the usual long duration of years under the conventional method. However, with the success and sustainability of the SLTR system in Rwanda and a pilot survey failure in Ondo State, Nigeria; there's a serious concern to examine and reevaluate the factors responsible for the failure considering the huge investment on the project. While the Rwandan framework was flexible enough to discount accuracy, precision and legality of claimed-land position by emphasizing a procedure that is fit for the purpose of the project (Fit-for-purpose), the Ondo state SLTR suffered a huge setbacks that may be attributed to poor attitude of professional surveyors and poor public awareness as highlighted in the study of Ige and Eniyansoro (2017).

2.2 An Overview of Land Titling and Registration in the Study Area

Prior to the adoption of systematic approach to land titling and registration in the study area, sporadic method was prevalent. The systematic method under investigation was short-lived as a result of some factors discussed later in this paper. This made the state to revert to the old sporadic method which various studies have adjudged to be slow, inefficient and costly.

Basically, the organizational structure of administering land titling and registration in the State by sporadic means comprises eight departments namely the offices of Surveyor-General, Director of Land Services, Registrar of Deeds, Stamp duty, Director of Deemed Rights,

Administrative Secretary, Special Senior Assistant to Governor on land matters and Honourable Commissioner who represents the Governor in some cases.

The applicant approaches office of the Surveyor-General (SG) with two original copies of his survey plan produced and duly signed by a registered surveyor. The applicant is directed to pay a certain sum to the State Treasury Account for the purpose of opening a case file. The office of the SG visits in order to verify the correctness of the coordinates of the boundary beacons as presented in the survey plan. After the verification by the office of the SG, the applicant proceeds to obtain application form, for processing of Certificate of Occupancy (C of O), at any of the nearest Area Lands offices or the Deemed Rights office in Akure. Upon completion of the application form, the applicant submits the form at the Area office of the Ministry of Lands within the jurisdiction of the property owner. The supporting documents to be submitted alongside the application form include survey plan, affidavit showing evidence of ownership, three (3) years development levy, three (3) years tax clearance, two (2) passport photographs and building plan approval if the property is developed. The next step is the payment of statutory fee for advertisement in the newspaper. The fee is calculated based on the size of the land usually, in square metres.

After all necessary fees have been paid; the applicant will be listed for publication in one of the local newspapers. The publication lasts for a period of twenty one (21) days. At the expiration of the 21-day notice, if there is objection, the applicant is communicated to resolve the problem. If there is no objection, after the expiration of the 21 days, the Area Lands Officer goes for inspection of the parcel and submits his report for the Director of Deed's consideration.

Upon consideration of the field inspection report, the Director of Deed prepares the Certificate of Statutory Right of Occupancy. Basically, what forms the content of the Certificate are survey plan, covenants, terms and conditions of grant and the schedule. The schedule is a description of the information on the survey plan (Plates 3 and 4). The Director of Deed then passes it to the Honourable Commissioner of Lands via the Administrative Secretary (AS) and Special Senior Assistant (SSA) to the Governor on land matters. Actually, the Governor is the one empowered to endorse the Certificate so prepared. However, provision of Land Use Act of 1978 also empowers the Governor to delegate the final endorsement to his representative. In this case, the Honourable Commissioner of Lands is delegated to finally endorse the Certificate on behalf of the Governor.

The Stamp Duty office determines the amount to be paid by the applicant. Stamp duty is the fee charged by the government for issuing a legal document that empowers individual to enjoy the use of a landed property and its associated rights. Stamp duty is calculated after the Governor might have approved the issuance of certificate to the applicant. This is followed by the registration of the stamped instrument by the Deeds Registry. Until payment of stamp duty is done, the deed so prepared cannot be regarded as a registrable instrument. This marks the penultimate stage of the process of obtaining C of O. The Registrar of Deeds enters the title, that is, the name of the applicant, parcel number, the date and location in the register. The registered document is returned to the Deemed Rights office after registering it in the appropriate register. Upon receipt of the registered instrument, the Deemed Right office once

again checks the integrity and completeness of the documents. After which, he invites the applicant for collection of the Certificate of Occupancy also known as Certificate of Statutory Right of Occupancy.

2.3 Fit-For-Purpose Model for SLTR Implementation

The International Federation of Surveyors (FIG) argues for the need to develop a continuum of adjudication and demarcation methods using a continuum of appropriate surveying technologies. Likewise, the World Bank and FIG jointly promote the fit-for-purpose land administration approach that enables appropriate land administration to be built within a relatively short time at affordable costs and with the opportunity to upgrade it when necessary (Lemmen *et al*, 2015). The term “Fit-for-Purpose (FFP) means applying the spatial, legal and institutional methodologies that best suit the purpose of providing secure tenure for all. Each of the three components permits flexibility in the design to meet the actual needs of today and can then be incrementally improved over time in response to societal needs and available financial resources. The FFP approach focuses firstly on defining the “what” in terms of the end outcome for society and communities and secondly, it looks at the implementation design of “how” this could be achieved. Or to put it another way, the means (the “how”) should be designed to be the most “fit” for achieving the purpose (“what”). A catch phrase for this approach used in New Zealand is “As little as possible – as much as necessary” (Grant and Haanen, 2007). A Fit-for-purpose approach includes a flexible spatial data capture approaches to provide for varying use and occupation; inclusive scope to cover all tenure and all land; participatory approach of data capturing by community support; cost affordability for the government, information reliability and correctness, possibility of establishing the system within a short timeframe and within available resources and Upgradeable system with incremental improvement over time in response to emerging social and legal needs for economic opportunities.

According to Enemark, McLaren and Lemmen (2016), the FFP concept emphasized that spatial framework be predominantly developed using aerial/satellite imagery for identifying the way land is occupied and used rather than using field survey; imagery used has the capability to show the actual boundary which in most cases is sufficient for identifying and securing the land rights. Georeferenced imagery (UAS data and orthophoto) also allows identified boundaries to be vectorized for cadastral plan. Handheld GPS or Cell phones methods may be used in densely populated areas for capturing non-visible boundaries. The fulcrum of boundary demarcation is thus physical (general) boundary determination and identification either by adjudication or other means of representation as against the norm of fixed (legal) demarcation. Therefore, the accuracy of the survey will only focus on the purpose, topography and density of the development of the area involved.

3. RESEARCH METHODOLOGY

Both primary and secondary data were used for this study. Primary data were collected through oral interview, questionnaires and field observations. Primary data were sourced from government officials and professional bodies. In addition, prior to the discontinuity of SLTR

project in Ondo State Nigeria, earlier study by Oluwadare (2016) had collected data on the perception of landowners based on their experiences of SLTR.

Close-ended questionnaires were used to elicit quantitative data concerning household experiences with the systematic land registration process. A sample size of 5% of the total households already covered by the demarcation officers in the study area was taken. In the rural Ifedore LGA, where 2912 parcels have been demarcated, also in urban Akure South, 9989 parcels were captured. In Akure North, which comprised mixed urban and rural dwellers, 3,027 parcels have been demarcated so far. Questionnaire was therefore distributed based on this proportion in the ratio 300:700:300. Out of the 1300 questionnaires that were distributed, 1002 questionnaires could be retrieved in the three target study area. One out of every twenty landowners in the study area whose land had been demarcated was sampled. Comprehensive list of the adjudicated land was obtained from the Land Record Bureau for the purpose of reaching the landowners. Questionnaires were also distributed among 147 professionals comprising Surveyors, Lawyers and Estate Valuers.

Purposive sampling procedure was employed in the selection of landowners. The reason for this selection procedure was to access landowners who have been involved in the land titling and registration programme and who will be able to provide relevant information for the study. The Local Government Areas (LGAs) in the study area were stratified into three: urban, rural and semi-urban. Three wards (two with systematic titling and one with sporadic titling experiences) were purposively selected from each LGA. In the three selected wards, 5% of the households were selected for questionnaire administration using systematic sampling technique. One adult was sampled in each of the selected households.

Based on the recent development, that is the abrogation and dissolution of the Bureau of Land Records, which oversees the SLTR project, by the newly elected government, interview was conducted on three of the four major Heads of Department in the Ministry of Lands and Housing namely Surveyor General, Deemed Rights and Land Registry to elicit information on the factors responsible for disbanding the pilot project. Department of Town Planning was left out of the interview because it was less affected with the SLTR project.

Thematic Analysis of the data collected during oral interview was done. Mean and Standard deviation of responses gotten from questionnaire administered on professionals were determined. While some of the analysis from previous study by Oluwadare (2016) were stated in this paper.

4. DATA PRESENTATION AND DISCUSSION OF FINDINGS

The factors influencing the sustainability of SLTR project in Ondo State could be categorized into both internal and external factors. Table 1 reveals various challenges faced at the five major stages of implementing land registration which are regarded as internal factors. The stages are sensitization, demarcation of parcels, lodging of acquired data into customized open source software –SOLA, adjudication and public display of verified claims.

4.1 Internal Factors

Sensitization was actually carried out by the officers of the abrogated Bureau of Land Record, but it was not effective due to the level of illiteracy of the landowners, 32.9% had no formal education while 19.2% had only primary education (Oluwadare, 2016) and this could have been responsible for the low response to the officers during sensitization. This also had effect on some of the landowners at providing necessary evidence of ownership. In some cases, field officers stated:

“High illiteracy level of landowners, non-availability of evidence of ownership, non-availability of landowners, undefined boundaries, and the need to get community leaders informed caused major setbacks for the pilot study”.

In addition, since general boundary was used, coordinates of boundary points could vary to some centimeters if the same point is visited at a later date. The handheld GPS used was linked with Continuously Operating Reference Station (CORS) data. Sometimes the data could not be downloaded from the cloud after the whole day work, which implies that the demarcation has to be repeated. Another stage in the process is that of processing the captured data (geometric and attribute) using a GIS open source software adopted for the project. Sometimes the GIS officer encountered the challenge of sorting information about the claimants. A more serious challenge is in referencing the captured data in the Orthophoto imagery. The Orthophoto was captured in WGS’84 Ellipsoid while the existing system prior to the introduction of SLTR used to reference their map in Clarke 1880 Ellipsoid, Minna Datum. This was a grave anomaly in harmonizing the two coordinate systems.

Furthermore, adjudication in some cases could not be carried out due to pending cases in court and there were unresolved internal crisis within people of the same family especially polygamous families. Disagreement sometimes occurred even between couples on what title the final document should bear. All this hampered smooth operation of SLTR project. At the display of the adjudicated or verified claims, the claimants may refuse to appear at the display centre due to non delivery of bulk message sent to them from the SLTR office.

Capacity Building. No provision was made for training and retraining of the adhoc and permanent staff of the Bureau. Every little problem on the use of Solution for Open Land Administration (SOLA) had to be fixed by expatriates. Even when political factors are removed, the inability to train staff of the Land Record Bureau and ICT government workers on the use of SOLA contributed to non sustainability of the project in Ondo State. (Oluwadare (2016) earlier reported that greater percentages of the workforce used for SLTR were ad hoc staff and this does not guarantee sustainability of the project, if they are laid off. One of the SLTR officers advised:

“...it is important to build capacity in this regard especially the core staff, the career officers who are not likely to go anywhere based on their long term working relationship with the government”

Table 1: Challenges of Systematic Land Titling and Registration in Ondo State

Sensitization	Demarcation	Registration SOLA	Adjudication	Public Display
1. Resistance from community members	1. Non availability of evidence of ownership	1. Inadequate provision of materials for office use. E.g. Stationery, printing paper and ink.	1. Multiple claimants	1. Swapping of names of claimant
2. High illiteracy level of landowners	2. Non-availability of landowners	2. Inadequate funding especially of running cost and delay in payment of staff salary	2. Pending cases in court	2. Wrong spelling of names
3. Inadequate awareness by some community	3. Undefined boundaries	3. Inability to lodge parcel data due to ward problem.	3. Existing internal crisis within family	3. Impersonation of claimants
4. Non-availability of land owners	4. Inadequate sensitization	4. Epileptic internet connectivity.	4. Large family especially polygamous family	4. Insecurity of the displayed image and it has to be folded at the end of each day
5. Need to get community leaders informed	5. Transportation logistics	5. Non availability of CORS data	5. Non agreement between couple on the title of the final document.	5. Daily transportation of staff to the public display venue
	6. Rough terrain e.g. swampy area			6. Physical confrontation of SLTR officers by the aggrieved claimants
	7. Weather problem for GPS tracking			7. Late appearance of claimant at the display venue
				8. Non delivery of bulk SMS to the claimants

Source: Oluwadare, 2016

4.2 External Factors

4.2.1 Willingness to pay for Certificate by Landowners

In an interview granted by Demarcation officer on why the project failed, revealed that

“People were unwilling to pay and there was lack of commitment on the part of the government to carry on. We demarcated about 15,000 parcels and certificates ready which the owners didn’t even bother to come and collect. The design of the certificate was also ambiguous which made the owners to be skeptical about the authenticity and reliability of the certificate if collected; hence were discouraged.”

They did not see it as being genuine because the geometric description doesn’t have bearings and distances. See Fig. 1 for a sample of the issued certificate. What could be

inferred from this statement is that the landowners were not adequately sensitized on the importance of the title document and this validates the findings of Oluwadare (2016) and Ige and Eniyansoro (2017) about inadequate sensitization. It is also evident that the surveyors who agitated for accuracy lacked knowledge of fit-for-purpose concept which allows incremental improvement on accuracy depending on the purpose for which title is being sought.



Fig 1: Front and Rear Views of the Statutory Certificate of Occupancy

4.2.2 Sudden Withdrawal of Financial Support.

Another issue was the abrupt withdrawal of support from the DfID which the State government expected would be further extended over a longer period. Since the government had not really included it in the budget, the project became an orphan; hence the discontinuity.

4.2.3 Resistance from Association of Private Practicing Surveyors (APPSN)

The surveyors, being the most relevant professional body in the provision of spatial data for implementation of SLTR, believed that the employment of Para-surveyors who use hand-held GPS for spatial data gathering is a gross violation of the constitution and a threat to their means of livelihood. While the state government embraced the programme for pilot test, the professionals saddled with the constitutional responsibility of boundary determination were of the opinion that the

government has violated its laws without a proper review of the laws guiding cadastral practice. Though the land surveyors accepted the possibility of SLTR as an enabling tool for developing comprehensive inventory of land, land rights for improved security of tenure and economic value of land; but however opined that according to the comment of one of the interviewed officers:

“SLTR was implemented abruptly without due consultation, it is a good programme but badly implemented”.

Table 2: Frequency of Professionals' Perception on the Implementation of Systematic Land Titling and Registration (N = 147)

S/N	Statement	SD 1	D 2	N 3	A 4	SA 5	Mean	Stand. Dev.	Remark
1	Your professional body was consulted prior to the commencement of SLTR Programme	(18) 12.2%	(75) 51.0%	(27) 18.4%	(11) 7.5%	(16) 10.9%	2.54	1.14	Negative
2	Collaboration exists between you and government on the issue of SLTR	(18) 12.2%	(70) 47.6%	(26) 17.7%	(22) 15.0%	(11) 7.5%	2.58	1.11	Negative
3	SLTR Programme should be extended to other parts of the country	(5) 3.0%	(7) 4.7%	(3) 2.0%	(100) 68.0%	(33) 22.3%	4.04	0.78	Positive

Legend: 'SD' means 'Strongly Disagree', 'D' means 'Disagree', 'N' means 'Neutral', 'A' means 'Agree' and 'SA' means 'Strongly Agree'.

Source: Author's Field survey, 2016

In item 1 of Table 2 above it was observed that only a total of 18.4% of the professionals agreed that professional bodies were adequately informed prior to the commencement of SLTR Programme with a mean of 2.54 and standard deviation of 1.14 while a total of 63.2% disagree with the claim. With this, there is a strong and accurate conviction that professional bodies were not consulted prior to the commencement of SLTR programme. This could be responsible for the strong agitation from members of Nigerian Institution of Surveyors (one of the professional bodies) in the State. Also, in item 2 of Table 2, it was noticed that a total of 88 professionals which is 59.8% disagreed with the claim that collaboration exists between them and government on the issue of space-enhanced methodology of systematic land titling and registration while only a total of 33 (22.5%) professionals agreed and 26 (17.7%) stand in between the claim. However this is an indication that the professionals rejected the claim that collaboration exists between them and government on the issue of SLTR with a mean of 2.58 and a standard deviation of 1.11 which prove the claim statistically.

4.2.4 Exclusion of relevant government agencies:

The fundamental error in the implementation of SLTR as identified by relevant agencies was the exclusion of the Office of the Surveyor-General of the State, the ministry of lands and the town planning unit and the creation of a new agency “Bureau of Land Record” which was completely independent and alienated from the existing agencies responsible for sporadic system of land titling. The transition from sporadic method to systematic method of titling was sudden. It came as a rude shock to those who were accustomed to the old practice. Hence, there was no professional synergy between the operators of the two systems which has serious implication on continuity and sustainability. Due to the abrogation of Land Record Bureau and most of its staff redeployed to other agencies, most of the data gathered during its operation were not accessible to the operators of the rebirth sporadic system. A respondent lamented as follows:

“We have been responsible for all survey in the state before the commencement of SLTR but we were not carried along. There was no interfacing whatsoever between our department and the bureau of land record. For instance, we cannot chart the survey plans because the data they obtained from the field through handheld GPS were inaccessible. We cannot also trust the system because the origin (reference system) is completely wrong and those Para-surveyors know nothing about basic principles of surveying”.

4.2.5 Poor Understanding of Fit-for-Purpose Land Administration:

Findings show that many land administrators and professionals do not understand the concept of FFP. The concept emphasized that spatial framework be predominantly developed using aerial / satellite imagery for identifying the way land is occupied and use rather than using field survey. However, a flexible spatial data capture approach that adopts handheld GPS receivers and Orthophoto was considered inaccurate by the land surveyors. In the opinion of a government surveyor:

“The project was done with handheld GPS, demarcation was not geometrically described with bearings and distances on the survey plan, scaling cannot be done and no information about location can be extracted from the survey plan. The accuracy is too low and the project cannot stand the test of time”.

Whereas, to facilitate quick and large survey data gathering with relatively low cost implications, aerial/satellite imagery will be preferred to field surveys. Then, accuracy will relate to the purpose of title rather than the usual technical standards of survey profession, the process of updating and upgrading of the land data in the LIS would be

more flexible and improved systems of operations can be incorporated as time goes on. Further on this, a respondent expressed the view that:

“The existing relevant agencies were not sensitized on the inclusive scope to cover all tenure and all land through participatory approach of data capturing by community support for the purpose of capturing reliable and correct information. Hence, they could not advice the members of the public on the benefit of the SLTR initiative”.

4.2.6 Political Influence and Implementation strategy.

One key factor that impacted negatively on the whole project was the top-bottom approach that was employed in the execution of the project. Bottom-top approach where all stakeholders, business processes, and departments are kept in mind encouraging input from all area of organization and making decisions on a wide spectrum of options. This would have yielded a better and lasting outcome than what transpired in Ondo State SLTR project. In addition, due to change in the political leadership, the new executive governor was not willing to continue the project inherited possibly due to the fact that the project does not seem to offer immediate gain. Hence, no provision was made for it in the budget. This attitude also characterizes the government at the federal level as described by Kufoniyi (2015): “the will to make conscious effort to implement Geodata policy is low. The issue of funding has always been there...”

4.3 Way Forward

To tackle the challenge of mobilizing the illiterate landowners, indigenous language should be adopted as the primary mode of communication during sensitization. On the harmonization of the two coordinate projection systems (WGS’84 and Clarke 1880), the adopted SOLA software should be customized to accommodate the legacy system by transforming from one coordinate system to another. In addition, SOLA software should be made more robust to accommodate complex situations such as rights description for a polygamous family.

Another major factor that will guarantee sustainability is capacity building. The system design should be less dependent on expatriates as the implementation of SLTR advances. This can be achieved through training and retraining of personnel to man various implementation stages.

External factor such as resistance from the association of professional body, can be surmounted through dialogue and enlightenment on the importance of the project and the overall benefits to the citizenry. International Federation of Surveyors (FIG) should also step up efforts at educating practicing surveyors on Fit-for-purpose land administration and the need to embrace SLTR. Individual state government should also adopt a bottom-top approach so as to make the project a viable one.

The project is capital intensive especially on the part of government; hence it should be planned for by integrating it into the budget until the benefits begin to emerge.

Regardless of political affiliation, there should be continuity in the implementation because it is a people-oriented project. In addition international collaboration should be encouraged in the planning and execution of the project.

Legal framework should also be made more flexible to modify the existing laws that impede the sustainability of SLTR project. For instance, the law should be able to accommodate the issued certificate of ownership or occupancy depending on the purpose. Certificate issued can be upgraded depending on the purpose.

5 CONCLUDING REMARKS

The study examined critical factors in the sustainability of SLTR in Ondo State and concluded that of all the outlined factors that were responsible for discontinuity of SLTR project in Ondo State Nigeria, political will demonstrated through adequate funding and adequate sensitization through grassroots mobilization are paramount factors in executing a sustainable SLTR project. The research findings have implications for the study area and developing nations that intend to embark on systematic land titling and registration.

Based on the importance of SLTR project and the factors militating against it, this study will like to recommend as follows:

Certificate of parcel identification could be issued to anyone whose parcel had been identified on the Orthophoto which should be recognized for land transaction and this would subsequently be taken to surveyors for more precise description depending on the purpose. It is also recommended that surveyors should put in perspective the overall benefit of SLTR to the citizen and should concede flexibility on the issue of accuracy and allow incremental land administration development, focusing on the purpose.

Capacity building should be given a high priority for sustainability. Both the adhoc and regular staff should be trained on the use of necessary software and equipment associated with the process. The administrators of the project should enlighten the practicing surveyors on the concept of FFP and tutored them on the implementation guidelines in the interest of the poor masses.

REFERENCES

- Addai, A. , Owusu, J. , Asenso-Gyambibi D. and Opoku-Gyamfi, Y. (2011) Systematic Land Title Registration: A Dynamic Approach to Land Registration FIG Working Week 2011 Bridging the Gap between Cultures Marrakech, Morocco, 18-22 May 2011.
- Adeniyi, P. O. (2018): Unpublished Chairman's opening address at the Regional training workshop on "a cost effective approach to land registration in Africa, held at the African Regional Institute for Geospatial Information Science and Technology (AFRIGIST), 8th – 12th October 2018.

- Babalola, S., Abdul Rahman A., Choon L., Ayeni, W., Ajayi, G., (2015). Land Administration Domain Model in Review towards the Adoption as a Reference Model for Land Administration System in Nigeria. *American Journal of Geographic Information System* 2017, 6(5) 178-186
- Bezu S. and Holden S. (2014). Demand for second-stage land certification in Ethiopia: Evidence from household panel data. 41 Pp193-205
Available online <http://dx.doi.org/10.1016/j.landusepol> Land Use Policy.2014.05.013
Accessed 19th Sep. 2019
- Deininger, K., Ali, D., Holden, S.T., Zevenbergen, J., (2008). Rural land certification in Ethiopia process, initial impact, and implications for the other African countries. *World dev.* 36 (10), 1786-1812.
- De Soto H. (1993). The Missing Ingredient: What Poor Countries Need to Make Their Markets Work. *The Economist*, Vol. 328, No. 7828, Special Supplement for the Economist's 150 years, Pp 8-12.
- DFID (2014).<http://dx.do> org/10.12774/eod_ad.march2014.gillinghtm.
- Dowell, D. E. and Leaf, M. (1992). The Price of Land for Housing in Jakarta. Chapter 13 in *Spatial Development in Indonesia: Review and Prospects*, edited by Kim, Knaap and Azis, published by Avebury, Aldershot.
- Enemark, S. McLaren R. and Lemmen, C. (2016) Fit-For-Purpose Land Administration Principles for Country Implementation United Nations Human Settlements Programme (UN-Habitat), Kenya
- Gbadegehin, E., (2013). Cadastral Ultra: A Purpose-Built Low Cost GPS System for Cadastral Surveying in Nigeria; FIG Working Week 2013, Rome, Italy, 6-10 May 2013.
- Grant D. and Haanen A (2007). “Best Regulation Cadastral Surveys: As little as possible, as much as necessary” *GIM International Magazine*, July 2007
Available online at <https://www.gim-international.com/content/article/best-regulation-cadstral-surveys>
- Grimsditch, M., Leakhana K. and Sherchan D (2012).” Access to Land Title in Cambodia” A study of systematic land registration in Three Cambodian provinces and the Capital. The NGO Forum in Cambodia, Phnom Penh. NGO reform in Cambodia.
- Holden, S.T., Deininger, K., Ghebru, H., 2009. Impacts of low-cost land certification on investment and productivity. *American Journal of Agric. Econs.* 91(2),359–373.
- Ige, V., and Eniyansoro, T., (2017). An Investigation into The Challenges and Prospects of Systematic Land Titling in Ondo State, Nigeria. *Environmental Design and Management International Conference*, Obafemi Awolowo University Ile-Ife. Vol.3 Pp 641-647)
- Independent Evaluation Group (2013). Project Performance Assessment Report Ghana Land Administration Project. Credit No 3817Project IDP071157

Kufoniyi, O. (2015) “ Needs Federal Commitment to its Geodata Policy” GIM International, Issue 1, Volume 29, January 2015.

Kufoniyi, O., Oluwadare, C., Abidoye, A., Abiri, A., and Sanyaolu, T., (2019). Concept Note on Developing a Volunteered Geographic Information and Semantic Constraints Handling Mechanism for Fit-for-Purpose Cadastral Database System; Submitted to Tertiary Education Trust Fund, Abuja, Nigeria.

Lemmen, C. Bennet, R., McLaren R. and Enemark, S. (2015). A New Era in Land Administration Emerges. GIM International, Issue 1, Volume 29, January 2015. Pp 22-25

Oluwadare, C. O. (2016). Assessment of Space-enhanced Systematic Land Titling and Registration in Ondo State, Nigeria. Unpublished Ph.D. Thesis submitted to the Department of Geography, Obafemi Awolowo University, Ile- Ife

Oluwadare, C. O. and Kufoniyi, O. (2017). Comparative Study of Sporadic and Systematic Methods of Land Titling and Registration in Ondo state, Nigeria. Environmental Design and Management International Conference, Obafemi Awolowo University Ile-Ife. Vol. 3 Pp705-716.

Oluwadare, C. O. and Kufoniyi, O. (2019). “Space-enhanced Systematic Land Titling and Registration: A Stride at Resuscitating Nigeria’s Dead Capital.” African Journal of Land Policy and Geospatial Sciences, Vol 2, No. 2, Pp 88-99, ISSN 2657-2664.

Morocco Available online at:

<https://revues.imist.ma/index.php?journal=AJLPGS&page=article&op=view&path%5B%5D=15521&path%5B%5D=9223>>

Peter Kuntun – Mensah, World Bank (2003). Ghana - Land Administration Project

Report of the Presidential Technical Committee on Land Reform, National Stakeholders Dialogue 4th -7th, June 2018.

Royal Government of Cambodia (2005) National Strategic Development Plan 2006-2010, Phnom Penh. Report of the meeting of the Ad Hoc Group of Experts on Cadastral Surveying and Mapping (1974). UN publication E/CONE 774 New York no 25.

World Bank Group. <http://www.doingbusiness.org/rankings> (accessed on December 12, 2014)

BIOGRAPHICAL NOTES

Caleb O. Oluwadare is an academic staff in the Department of Surveying and Geoinformatics Obafemi Awolowo University Ile-Ife, Nigeria. He is a Registered Surveyor and a Member of the Nigerian Institution of Surveyors. He is a member of the professional examination committee. He holds a Doctor of Philosophy Degree in Geography, M. Sc. (Remote Sensing and Geographic Information System) and B.Sc. Degree in Surveying, Geodesy and Photogrammetry. He is a Faculty Member of Obafemi Awolowo University and

a member of Conference paper review committee and also served on the Committee of Space Science and Technology tagged OAU Community Space Day. His work centres on Land administration.

Email: coluwadare@oauife.edu.ng

Mobile: +2348035920575

Ayodeji I. Abidoye is an academic staff in the Department of Surveying and Geoinformatics Obafemi Awolowo University Ile-Ife, Nigeria. He holds B.Tech in Surveying and Geoinformatics and a Masters degree in Remote Sensing and GIS. His research focuses on integrating Altimetric data into existing 2D Cadastre, GNSS application for land administration and application of GIS and Remote Sensing for sustainable land governance. He is currently a Pupil Surveyor of the Surveyors Council of Nigeria.

Email: amazinggracemiracle@gmail.com

Mobile: +2349060130485