

# An Appraisal of E-Conveyance under Kano Geographical Information System (KANGIS)

Sani Rabi Bello<sup>1\*</sup>, Ibrahim Shehu<sup>2</sup>

<sup>1</sup>Lecturer, Faculty of Law, Bayero University Kano, BUK Along new site Bayero University Kano Kano around, Janbulo Second Gate Rd, Nigeria

<sup>2</sup>Senior Lecturer, Faculty of Law, Usmanu Danfodio University Sokoto, 840104, Sokoto, Nigeria

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\*Corresponding author: Sani Rabi Bello

Lecturer, Faculty of Law, Bayero University Kano, BUK Along new site Bayero university Kano Kano around, Janbulo Second Gate Rd, Nigeria

## Abstract

This paper focuses on the electronic conveyance (e-conveyance) under Kano Geographic Information System (KANGIS). E-conveyance is one of the blossoming concepts under the realm of Information and Communication Technology (ICT). It involves land transaction using ICT facilities. The prime object of the paper is to highlight the concept of e-conveyance under KANGIS to determine its level of compliance with the world best practices. Combinations of doctrinal and empirical methods of research are adopted for the purpose of writing the paper. It is observed that what was practiced in KANGIS is a hybrid of traditional and digital form of conveyance. It is recommended that KANGIS should try to upgrade their system of e-conveyance to conform with the world best practices.

**Keywords:** E-conveyance, ICT, KANGIS.

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## 1. INTRODUCTION

This research paper focuses on the legal regime of e-conveyance in Nigeria, with Kano Geographic Information System (KANGIS) as the case study of the research. Conveyancing is one of the old 'legal works' known to be carried out in Nigeria by paper work. Infact, until recently, this aspect of legal activity had not been affected by emerging computer technologies. Thus, for long, land and information about land were not effectively managed. This is against the background that in most Land Registries in Nigeria, there are ambiguous descriptions and the physical location and extent of parcel of land, the related rights to the land and the information on the Land. Kano being in Nigeria was not an exception to these problems and this is why e-Conveyancing was so welcomed with an establishment of an agency on the issue.

The establishment of Kano Geographic Information System (KANGIS) in Kano clearly indicates that decisions pertaining to land can now be taken from an up to date position with reliable data. KANGIS introduced the computerisation of Land data within Kano state.

Computerisation of data repositories and workflows is an important step for effective and efficient e-conveyance, in that it makes the key components safe, tamper proof and transparent. E-conveyance provides an electronic business environment for completing property transactions including electronic lodgement with land registries and the electronic settlement of funds [1]. This includes providing an electronic environment to lodge the land title documents needed to register changes in property ownership and interests; allow the different and accredited parties involved in the transaction to view and complete the documents to conclude the property exchange or transaction; and allow for the electronic settlement of all financial transaction at a nominated date including duties, taxes and any other disbursement [2].

The bold decision taken by Kano state government to embark on complete computerisation of the cadastral and land registry of the state led to the

<sup>1</sup> Pexa, About E-Conveyancing, <https://www.pexa.com>(visited on 20/3/2021)

<sup>2</sup> ibid

establishment of an agency known as Kano Geographic Information System [KANGIS]. KANGIS is an organization set up by the Kano State Government under the administration of Engr. Dr. Rabiou Musa Kwankwaso, having the following terms of references and commitments:

1. Conversion of land parcels hard copy documentation into vectorised representation to scale in action.
2. Replace production of the old certificate of occupancies with modern and automated system.
3. Creation of web portal qualifying GIS land administration system.
4. New estate and layouts creation.
5. Handle any Geospatial Database of Kano state [<sup>3</sup>].

The agency has been able to revolutionise the operations of the land administration and other land related departments of the state. Decisions concerning land can now be taken from an informed position with a reliable and up-to-date data. The KANGIS project includes the introduction of Spatial Data Infrastructure[SDI] for the state, the computerisation of spatially related work flows in selected Kano Urban Planning and Development Authority[KNUPDA] departments and agencies and the buildup of the KANGIS resource center.

## 2. Meaning of E-Conveyance

E-conveyance or electronic conveyance is an emerging concept that describes the process for completing property transactions with the aid of information and communication technology system.

There are various meanings or definition of e-conveyance proffered by Authors and certain organisations. According to Property Exchange Australia Limited (PEXA), e-conveyancing provides an electronic business environment for completing property transactions including electronic lodgment with land registries and the electronic settlement of funds [<sup>4</sup>]. This includes providing an electronic environment to lodge the land title documents needed to register changes in property ownership and interest; allow the different and accredited parties involved in the transaction to view and complete the documents to conclude the property exchange or transaction and allow for the electronic settlement of all financial transactions at a nominated date including settlement of monies, duties, taxes and any other disbursements [<sup>5</sup>].

<sup>3</sup> KANGIS, Introduction, <http://www.kangis.com/>(visited on 20/4/22).

<sup>4</sup> PEXA, About E-Conveyancing, <http://www.pexa.com.au/about-e-conveyance> (Visited on 17/4/22).

<sup>5</sup> *ibid*

Rajasekhar defines e-conveyance as a system which is paperless, without registration gap, with complete chain transparency, with permanent connection between practitioners and the land registry, secured and fraud-resistant and with facility for simultaneous money transfers; and capable of facilitating electronic conveyancing of documents, online investigation of title, networked communication between the parties, simultaneous completion and registration [<sup>6</sup>].

E-conveyance is also described as a system which moves the conveyancing process from being a paper based system of effecting and recording transactions to a modern electronic system via the creation and empowerment of electronic communication networks [<sup>7</sup>]. It provides a single online 'hub' through which dealings needed for land conveyancing can be digitally prepared, signed, settled and lodged directly into the electronic land register of the participating jurisdictions [<sup>8</sup>].

E-conveyance is also defined as a system that enables the completion of property transactions and lodgment of title documents with the land and property information office as well as completing conveyancing and mortgage transactions. The process allows electronic settlements fund movement, revenue collection, lodgment and registration [<sup>9</sup>].

E-conveyancing envisages a modern system for land registration, where each stage of the process can be completed electronically rather than being paper based. Users of the e-conveyancing system will be able to correspond and transact with each other securely and will be able to share information electronically. Deeds and documents will be signed with electronic signatures [<sup>10</sup>].

<sup>6</sup> P.V Rajasekhar, e-Conveyancing: Challenges and Ambitions

<http://www.fig.net/commission7/india2006/papers/ts0302rajashekar.pdf> (Visited on 17/4/22)

<sup>7</sup> G Breman, The Impact of e-Conveyancing on Title Registration: A Risk Assessment, <https://ibooks.google.com.ng/books?id=vj9BQAAQBAJ&IPG=PA&7&dp=development=of=e-conveyance&source=bi=aBE=g=brby&sis=KQ18f02>( visited on 17/4/22).

<sup>8</sup> Business and Industry Portal, <http://www.business.aid.gov.au/industry/titles-property-construction/titles-propeerty/electronic-lodgement-conveyancing/national>. (Visited on 19/4/22).

<sup>9</sup> JFMLAW, property lawyers, What is e-Conveyancing

[www.confirm.com.au/citeconfirm/neros/featurenews/2013/what-is-conveyancing.shtml](http://www.confirm.com.au/citeconfirm/neros/featurenews/2013/what-is-conveyancing.shtml) (visited on 19/4/22)

<sup>10</sup> Fridays Move, E-Conveyancing: A Brief History, [www.fridaysmove.com/e-conveyancing/14302](http://www.fridaysmove.com/e-conveyancing/14302). (visited on 19/4/22)

From the various definitions given above, it is clear that e-conveyance involves property transaction through the use of information technology and online service channels, departing from the old way of paper-based systems.

### 3. Structural Organisation OF KANGIS

KANGIS is structurally organised according to units. That is to say, there exist units within KANGIS with different functions. From the onset, it is vital to note that KANGIS is under the Kano State Ministry of Land and Physical Planning. It comprises of seven units, viz:

#### Recertification Unit

After the establishment of KANGIS, one of the duties assigned to it is to recertify the existing certificate of Occupancy (C-of-O). This function falls under the recertification unit. The recertification of the C-of-O started in January, 2014. An owner of the existing C-of-O will be requested to surrender his original land documents. In lieu of his original land document, a form will be given to him/her known as recertification acknowledgement. This is to acknowledge the receipts of the original C-of-O. The form will indicate the name of the owner of the C-of-O together with the plot number and cadastral zone in respect of which the C-of-O was issued. The form request for information such as evidence of payment for recertification, whether right of occupancy or C-of-O was submitted, two passport photographs, copy of national identity card or international passport, e.t.c. A copy of recertification acknowledgement form will be attached to this research work as an annexure.

The document submitted will be subjected to verification to ascertain its authenticity and genuineness. KANGIS will do this in collaboration with the Ministry of Land and Physical Planning. Once it is discovered that the documents are genuine, a new computerised C-of-O will be produced after data capturing and taking of passport of the applicant at KANGIS. It is to be noted that the two passport photographs submitted by the applicant are for the purpose of opening a new KANGIS file for him, but the passport that will appear on the new C-of-O is the one taken within KANGIS by their official. The new computerised C-of-O is embedded with many securities, so as to secure it and make production of its counterfeit very difficult, if not impossible<sup>[11]</sup>. A copy of the new C-of-O generated by KANGIS will also be attached to this research work as an annexure. The name of the applicant and his signature appears on the recertification acknowledgement form and the form is countersigned by the Director General of KANGIS.

#### File Tracking Movement Unit

The function of this unit is to ensure that it tracks the movement of the applicant's file within and outside KANGIS until when the C-of-O is finally produced and given to the applicant. For one who applies for recertification, his old policy file at the Ministry of Land and Physical Planning would be traced and brought to KANGIS. The old file and the new will be merged together and will remain as such until when the new C-of-O is produced. It is the duty of this unit to track the movement of such files up to the moment the C-of-O is produced for the applicant and he collect it. In the discharge of their functions, the staff of this unit issue a form known as file issuance/exit slip. The form contains the file number on movement, its name and its purpose<sup>[12]</sup>. It also contains the name of the person who requested the file, his rank or designation and department<sup>[13]</sup>.

#### Verification Unit

This unit is saddled with the task of verifying the genuineness or otherwise of C-of-O or letter of grant. When the original documents are collected from the applicant for recertification, the documents are sent to the unit. If the document is genuine, the unit will permit the process to continue. However, if there is suspicion of forgery, the file is sent to the Director of Lands, Ministry of Land and Physical Planning for further verification.

If a particular problem is discovered upon the verification by the Director of lands, the file will be tagged as problem file and will be kept aside for further verification. If the problem is resolved upon further verification, the process will continue. If, however, it is established that the document is forged, the process will automatically be cancelled<sup>[14]</sup>.

#### Geographic Information System (GIS) Unit

This particular unit performs a number of functions. The unit establishes a geometry of a particular land. They will confirm whether the geometry of the land in question is the same with the geometry of KANGIS Geospatial data or not. If there is conflict as regards the geometry of the land and that of KANGIS, they will use their computer system to correct the anomalies and bring out the original geometry by using the co-ordinate of the land and plot number. The unit also vet the verified files to determine if all the requirements have been complied with. If they find a problem, the file will again be sent back to the Ministry of Land and Physical Planning for further verification.

Another function of this unit is the production of computerised C-of-O. Before the production, they carefully check if there is no mistake on

<sup>11</sup> An interview with Ibrahim S. Ahmad, Senior Assistant Secretary KANGIS (Kano, 3/3/21)

<sup>12</sup> *ibid*

<sup>13</sup> *Ibid*

<sup>14</sup> *Ibid.*

acknowledgement form. They will check the name of the applicant, his picture and also the correct spelling of the name, etc. After the production of the certificate, it will be sent to the Director General of KANGIS for confirmation. After that, the certificate will be sent for the signature of the signatories. The signatories to the certificate are Deeds Registrar, the Commissioner of Ministry of Land and Physical Planning and the Surveyor General [15]. After the signature of the signatories, the certificate will be scanned so that KANGIS can have a certified true copy of the certificate for record purpose. At this level, the certificate is sent to account for billing. After the payment of the prescribed fee, the certificate is then ready for collections [16].

#### Account Unit

The main function of this unit is billing for charges and rent payable to the state. The account unit has a form of Bill for charges and Rent. The form contains the old file number and a new file number of the file to be charged. It provides for the description of the fee to be paid, such as Power of Attorney fee, Deed of Assignment fee, Deed Registration fee, Bill balance, ground rent unpaid years, re-grant fee and surrender and release fee. It also specifies the amount to be paid.

#### Administrative Unit

As the name implies, this unit performs administrative functions. It is the responsibility of the unit to co-ordinate files. It also track sending of files to Ministry of Land and Physical Planning for verification. It also co-ordinate sending files to various units of KANGIS. File tracking movement unit is centrally controlled by administrative unit [17].

#### Land Information System (LIS) Unit

This unit keeps the record of land information. After completion of the processes for the production of the new certificate and it is ready for collection, the certificate will be scanned and stored on the computer system of KANGIS. It is the duty of this unit to record the information of such transaction. At this stage, old file of the Ministry of Land and Physical Planning ceased to be useful. The whole record is computerised and can be traced by a click of a computer button. At the point of collection of the certificate, the applicant will return the acknowledgement form and collect the new certificate.

It is also the duty of this unit to record the whole transaction in a layer. A layer is a system of software in KANGIS where files are electronically kept in a form of e-library system. In a situation where one needs to trace a file, he can do so by a click of a button

<sup>15</sup> Certificate of Occupancy No KNGP 00067, Kano State Government

<sup>16</sup> See above 7.

<sup>17</sup> Ibid.

of a computer and it will bring the file on the screen. All that required to be done is to enter the file number on a computer and click it, the file will appear on the screen of the computer [18].

#### 4. Software System

The software system used by KANGIS is known as ArcGis. ArcGis is a software created by Environmental System Research Institute (ERSI) California.

ArcGis brings together maps, apps, data and people to make smarter decision and enable innovation in organisation or community. It is a practical way to link science with action and is used by governments, industries, non-governmental organisations and companies around the world [19].

ArcGis is a geographic information system (GIS) for working with maps and geographic information. It is used for creating and using maps, compiling geographic data, analysing mapped information, sharing and discovering geographic information, using map and geographic information in a range of applications, and managing geographic information in a database [20]. The system provides an infrastructure for making maps and geographic information available throughout an organisation, across a community and openly on the web [21].

GIS is an organised collection of computer hardware, software, geographic data and personnel designed to efficiently capture, store, update, manipulate, analyse, and display all forms of geographically referenced information. Complex spatial analysis and geographical data processing is possible with GIS that will be difficult, time-consuming impracticable otherwise [22].

ArcGis is built around a geo-database, which uses an object-relational database approach for storing spatial data. A geo-database is a “container” for holding datasets, tying together the spatial features with attributes. The geo-database can also contain topology information, and can model behaviour of features such as road intersections, with rules on how features relate to one another [23]. With the use of ArcGis, KANGIS is

<sup>18</sup> Ibid.

<sup>19</sup> Esri, ArcGis, [www.esri.com/software/arcgis](http://www.esri.com/software/arcgis) (visited on 15/4/22).

<sup>20</sup> Wikipedia, ArcGis, <http://en.m.wikipedia.org/wiki/ARCGIS> (visited on 15/4/22).

<sup>21</sup> Ibid

<sup>22</sup> Pasda, Learning ArcGis, [www.pasda.psu.edu/tutorial/arcgis/glossary/asp](http://www.pasda.psu.edu/tutorial/arcgis/glossary/asp) (visited on 15/4/22).

<sup>23</sup> See above n 44.

able to perform its function effectively using an up to date data.

### 5. Conveyancing Processes

As earlier stated, KANGIS is under the Ministry of Land and Physical Planning, as such the conveyancing process begins at the Ministry. It started with writing an application to the Commissioner of Land seeking for permission to transfer land by assignment to the purchaser. The commissioner will forward the application to the Director, Deeds department. Lawyers of both parties will prepare a Deed of assignment. The Director of Deeds will send valuation officer to the field for the purpose of assessing the current value of the land. After the valuation, the purchaser will pay 8% of the total value of land to the government, 5% to the Ministry of Land and Physical Planning and 3% to the Ministry of Internal Revenue. Then the assignment will be registered at deed department [24].

When the application reaches KANGIS, the process will take the form of either certification or recertification. Certification is a process of applying for a modern form of certificate of occupancy for someone who does not have it before. In other words, it is a fresh process of obtaining a legal instrument known as certificate of occupancy, where all the requirements necessary to ascertain the level of title are fulfilled.

For instance, KANGIS will ascertain the governor's recommendation on the plot, cadastral confirmation, tentative and authentic survey plan from survey department, approval of the Commissioner of Ministry of Land and Physical Planning, payment of outstanding charges and will consider the final report from KNUPDA against any possible encumbrances. A person who applies for certification will apply for certificate data form. The form will be filed by the applicant. The file of the document pertaining to the land must be vetted to verify the document presented. A passport will be snapped in KANGIS to appear on the C-of-O. Once the authenticity of the document is confirmed, Director General of KANGIS will give direct approval for C-of-O. The production unit will produce the certificate, run quality control and convey the certificate for triple signature by the statutory signatories, namely Deeds Registrar, Commissioner for Land and Surveyor General [25].

Recertification on the other hand, is a process whereby all titles are refined or recycled into a new modern system of C-of-O having the following properties- Customisation of font creation, database printed with a lot of permutation and combination, and existence of a title with unique security.

For recertification, one can download a form from the KANGIS website and fill it. The forms are free, but the processing fee for recertification is Ten Thousand Naira only (# 10,000,00). For recertification, there is no charge. Once one applies for recertification, a yellow form is opened for him. The old file of the applicant will be traced to the Ministry of Land and Physical Planning and it will be married together with the yellow form. This is done through database online. The next stage is to confirm the geometric sitting of the survey plan found in the old file. It will be determined, from there, whether the survey has effect or not. Recertification approval form will only be issued from database if the survey plan is correct. It will indicate the time, minute and the area where the exercise is conducted. It will be forwarded to the verification unit for manual vetting. At the stage, each instrument will be carefully read to make sure it is genuine. At the end of it, the officer who vetted it will sign a form indicating that the titles are genuine. It will then be sent to Director General, KANGIS who will give a final approval [26].

In KANGIS, the registration process is basically manual. Deeds are manually delivered for registration. There is no provision for electronic signature, signatures are by handwriting and so also the authentication by lawyers to the parties. There is also no provision for electronic lodgment of funds, payment is by cash or cheque. There is a lot of human interface in the conveyancing process under KANGIS. At the end of the transaction, it will be uploaded and recorded in computer systems. This is unlike some jurisdictions where e-conveyance is at full throttle. One cannot transact under KANGIS system, from the comfort of his room. He has to be physically present at KANGIS, as the network they are using is a local Area Network (LAN) [27]. It can be said that there is a long way ahead until the achievement of full e-conveyance system under KANGIS.

### 6. RECOMMENDATIONS

Numerous changes in both technology and culture are forcing the real estate conveyance process to change. In Nigeria, the concept of e-conveyance is gradually gaining acceptance as the Federation and Some States took a step to incorporate it in their land administration process.

For the effective and efficient service delivery of e-conveyance, the following recommendations are hereby proffered:

1. A law establishing KANGIS should be promulgated. The law shall specify the duties, functions and powers of KANGIS. This will save KANGIS from unnecessary legal tussles and will help the public who peruse through such law to

<sup>24</sup> Ibid.

<sup>25</sup> Interview with Muhammad Hassan, Head, Technical Team, GIS KANGIS (Kano, 3/3/21)

<sup>26</sup> *ibid*

<sup>27</sup> *ibid*

know the activities undertaken by KANGIS. It will also help to know when KANGIS acted *ultra vires*.

2. There is need for a legal unit to be established within KANGIS. Though there is a legal adviser to the Ministry of Land and Physical Planning, the Legal demands of both KANGIS and the Ministry may be too daunting to be handled by that office alone. The unit should be saddled with tackling all legal issues in relation to KANGIS.
3. There is need for massive awareness to the general public about activities carried out by KANGIS and what it represents. This can be achieved through utilisation of the services of state-owned broadcasting media as well as private ones that enjoy patronage of the populace, such as freedom Radio, Wazobia FM, etc. In addition, pamphlets should be produced to be distributed to the public about the activities of KANGIS. This will awaken people as to the responsibilities of KANGIS and may make them understand and prefer e-conveyance over the traditional method of conveyance.
4. There is need for the State Government to give adequate financial attention to KANGIS. That the appliances needed for e-conveyance are expensive in nature, as such, the State needs to provide financial assistance to KANGIS to meet the mandates of its establishment.
5. There is need for KANGIS to employ more staff that will help in the discharge of its functions. In particular, professional hands in the field of GIS are needed to complement the work of the existing ones and to bring about new innovations that will enhance the sustainability of the system.
6. There is need to make KANGIS independent organisation separate from the Ministry of Land and Physical Planning. This will help to reduce the tension between the staff of KANGIS and those of the Ministry. It will also help KANGIS to discharge its functions effectively as it will be autonomous.