Horti Nigeria

BUILDING A SUSTAINABLE & INCLUSIVE HORTICULTURE SECTOR

Report on the Review of Road Taxes Associated with Vegetable Products Transportation from Farm Gate to Market

Submitted to

HortNigeria

through

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Table of Contents

Abbreviations

Abbreviation	Meaning
B2B	Business to Business component of HortNigeria
FCT	Federal Capital Territory
FGD	Focus Group Discussion
Govt	Government
JTB	Joint Tax Board
KG	Kilogram
KII	Key Informant Interview
LGA	Local Government Authority
NARTO	National Association of Road Transport Organisation
NDLEA	National Drug Law Enforcement Agency
NRTW	National Road Transport Workers
PAYE	Pay As You Earn
SHFs	Smallholder Farmers
SJTB	State Joint Tax Board
ToR	Terms of Reference
UNICEF	United Nations Children's Emergency Funds

Figures

Tables

Executive Summary

This section of the report presents an overview of the findings of the road tax study on vegetable products transported across markets. For coherency and completeness, the executive summary is presented in a bulletin-styled structure, using the six study objectives as domains under which the summaries are presented.

Study Objective 1: Summary of Findings

1. In Nigeria, road taxes seem like a straightforward affair, especially where official taxes are concerned. Officially there are three categories of taxes that road users, especially transporters of vegetable products are expected to pay viz; – (1) the motor registration tax, which is paid annually, (2) the road usage permit, which is paid at the point of use and (3) produce sales tax and agricultural quarantine levies, which are paid when 'produce' is transported or displayed in the market. What complicates road taxes in Nigeria is the unofficial taxes that transporters pay to security personnel manning the highways and other unscrupulous government officials.

2. There is a structured system for tax collection for official taxes charged on vegetable products transported across markets. In Kano State for instance, the state and the local governments have shared responsibilities for tax collection. In Kaduna State, on the other hand, the state government collects all the taxes through the State Internal Revenue Board and shares the proceeds with the LGAs and other parastatals with the mandate to collect taxes, based on an agreed formula and time.

3. In the case of the destination markets, the states and LGA officials share the responsibility of tax collection.

4. Except for produce tax which relates directly to vegetable products and agricultural produce quarantine levies, other taxes paid by vegetable products transporters are more directly connected to road usage, vehicle charges, market or parking space usage or other ancillary factors that are not directly connected to the vegetable products.

5. Unofficial taxes charged on vegetable products transported across markets are mostly collected by security personnel manning the highways, and some unscrupulous government officials charged with the responsibility of collecting taxes. In both cases, the collection modalities of the unofficial taxes are through negotiations. What is eventually paid is determined by the shrewdness or otherwise of the vegetable products transporter's negotiation skills.

Study Objective 2: Summary of Findings

Within the period under review, on average, the vegetable market contributes average of 15% of the gross selling price of the vegetables transported to the markets.

Study Object 3: Summary of Findings

Table 1 below presents the quantity of vegetables transported across markets within the reporting period. The disaggregation is based on a monthly distribution, as other forms of

disaggregation were not practicable, due to constraints of time, and the nonalignment of the timing of the study with the vegetable production season in source states. Consequently, a total of 116, 595 crates or large baskets of tomatoes were transported from the two source states of Kaduna and Kano to the destination markets. Of the total quantity of tomatoes distributed, Lagos and Port Harcourt got the largest share of 10% apiece. For the other three products, a total of 165,288 (100kg bags) was transported across the five target markets, and once again Lagos and Port Harcourt top the chart of the recipients of the other 3 products with 15% and 14% respectively.

	Table 1: Quantity of Vegetable Products Transported across Markets						
	Source States	**Benin**	**Lagos**	**Ogun**	**Oyo**	**Port Harcourt**	**Sizing**
Tomatoes	116,595	8%	10%	7%	7%	10%	Basket or Crates
Pepper	76,738	5%	7%	5%	4%	7%	100kg bag
Onions	75,169	5%	7%	4%	4%	6%	100kg bag
Okra	13,381	1%	1%	1%	1%	1%	100kg bag

STUDY OBJECT 4: SUMMARY OF FINDINGS

Table 2: Checkpoints disaggregated by route

	Kaduna	Kano
Benin	10	10
Lagos	7	8
Ogun	10	8
Oyo	8	9
Port Harcourt	10	11

Using the source markets as the take-off point and the 5 destination markets as the terminal end for the vegetable products, on aggregate, a total number of 45 checkpoints/tax collection points were encountered from Kaduna to the five destination markets, and 46 from Kano. The disaggregation per route is presented in Table 2, with Port Harcourt, Benin and Ogun reporting an average number of 10 checkpoints from the two source markets.

STUDY OBJECT 5: SUMMARY OF FINDINGS

For official taxes at the source states, the only category of taxes identified that is closely related to vegetable products transportation, which is also classified by truck type is the Single Parking Permit Levy. It provided for trailers of all sizes to pay N1,500, Mini Trucks N1,000 and Buses N500. Other forms of official taxes with 'vehicle-type' annotations are more related to road usage licenses or vehicle permits.

For other taxes, especially from the destination markets, the study based its findings on the data gathered by the study Observers at the checkpoints and the taxes they paid to the officials manning the checkpoints. In summary, therefore, table 3 presents an outlook of the amount of taxes paid per truck and route.

Table 3: Outlook of taxes paid disaggregated by truck and by route

	Benin	Lagos	Ogun	Oyo	Port Harcourt
22 wheels	2,617	2,088	3,925	2,550	5,156
18 wheels	2,950	2,890	1,656	1,271	5,880
16 wheels	1,658	2,116	2,829	2,514	3,642
14 wheels	2,327	1,723	3,060	3,089	2,153
12 wheels	1,251	1,450	1,475	1,375	4,174
4 - 6 wheels	-	1,100	1,567	470	-

It is important to reiterate here that because the collections, especially on the highways, are based on the shrewdness of the truck driver's negotiation skills, the payment is somewhat inconsistent. Another factor that might contribute to the disparity in what is paid, is the number of checkpoints. It is not likely that two drivers on the same route will meet the same number of tax collection points.

Study Object 6: Summary of Findings

Based on the study team's interactions with the key market actors of vegetable produce transportation, the recommendations presented in this report comprise the felt needs of the market actors as well as the proposed steps for reducing the impact of taxes on the vegetable products prices. Starting with the felt needs of the market actors, which are mostly long-ranged, the proposed recommendations are.

1. Improved market access for vegetable producers: To achieve this objective, the role envisioned for HortNigeria is a high-level advocacy to the state actors to include the provision of cargo trains in the vegetable producing states, in its current rail transport resuscitation plans. This will not only enhance the ease with which these products are transported across markets, it will also encourage producers to produce more. Also, in line with this, is the recommendation for another high-level advocacy to the aviation sector, to initiate the provision of cargo planes from the main vegetable producing states to the destinations in the south. The outcome of this is similar to the latter.

2. Reduce Instances of insecurity in the country: This and the next point, fall under the short-range recommendations for HortNigeria. The reason why several checkpoints lace the country's highways is incessant instances of insecurity, especially on these highways. A subtle pressure from HortNigeria, like supporting researchers or security experts to document and publish on a monthly basis, instances of security challenges on the highway especially those encountered by vegetable products transporters. This is likely to put more pressure on the government to take more decisive action in curbing the menace.

3. Strengthen Association of Vegetable Products Transporters: The most recounted instances of high road taxes for vegetable products transportation were heard more loudly from the members of the vegetable products transporters associations. However, regardless of the high-pitched decibel of the cry on high road taxes on vegetable products transportation, none can substantiate such cry with any evidence. Hence it is the candid view of the study team that the governance system of the vegetable products transporters is opaque, as a result, the managers of the associations will require structured trainings to deepen their understanding of how associations are managed effectively and efficiently too.

Section One

Introduction

Road taxes in Nigeria may appear like a straightforward affair, especially when viewed from the perspective of its import to the government as demonstrated in the Federal Government's official gazette published on 9th June 2015[1]. From the gazette, the taxes road users pay, especially those transporting vegetable produce in Nigeria are categorized into three – (1) the motor registration tax, which is paid annually, (2) the road usage permit, which is paid at the point of use and (3) produce sales tax, which is also paid when 'produce' is transported or displayed in the market. According to the Taxes and Levies Gazette, the three categories of taxes vegetable transporters are obligated to pay are further broken down into the following.

1. Motor vehicle registration, which is done annually, with several other sundry items like fire services levy, roadworthiness, road and television levy, plate number etc.
2. Single inter-state road tax sticker
3. Single Haulage fee payable at the point of loading in the state of departure
4. Single Haulage fee payable at the point of discharge of the goods.
5. Single parking permit sticker
6. Signages and Mobile Advertisements for vehicles with company branding
7. Environmental Fee
8. Produce Sales Tax

As highlighted earlier, except for the motor vehicle registration tax that is paid annually, the taxes listed under numbers 2 – 7 above are paid per trip and are mostly in the form of a sticker. According to Alhaji Sammani Ibrahim, Director, of Kano State Inter-Ministries Coordination, all the taxes payable by the commercial truck operators are further categorized into twelve and each is identified by an emblem sticker, examples of which are shown in Figure 1. According to the Director, the total amount of the twelve stickers is N2,000 per trip, if one is paying directly to the state or N3,000 when payment is made to the Local Government Area (LGA) authority.

Figure 1: Sample of Emblem Stickers

On Number 8 (Produce Sales Tax), it is worthy of note that both Kano and Kaduna States classified the producers of vegetable products as Small Holder Farmers (SHFs) and hence have waived Produce Sales Taxes in the two states. According to Dr Muhammed Lawal, Executive Director, Kaduna State Revenue Operations, the waiver given to the SHFs on produce tax is a form of encouragement for them to continue production and by so doing, increase food production in the states.

Going by the above submissions therefore, a casual observer of the road taxes sphere may be tempted to conclude that the road taxes paid by the vegetable transporters are straightforward. This conclusion is overstretched and far from the reality of what takes place especially where the road taxes and their collection are situated in the sphere of the

1 Federal Republic of Nigeria Official Gazette – Schedule to the Taxes and Levies Approved List for Collection Act Amendment Order 2015 Pages B261 - 265

current socio-economic and security challenges plaguing the country. This is where the second dimension of the unseen, yet real road taxes paid by the vegetable produce transporters crips in.

The Road Tax Contours

Road Taxes, especially those paid by vegetable produce transporters in Nigeria do not exist in a vacuum. It is situated on the tapestry of social and economic contours. In understanding the road taxes paid by vegetable produce transporters, it is important to pay heed to these contours. In examining the social contour, two factors contribute to shaping some of the informal taxes that are eventually incurred by either the vegetable producers or its consumers. The first factor is the intricate organizational structure of the vegetable products transporters, and the second is the pervasive insecurity in the country.

As a transporter interested in transporting vegetable produce, you are required by the social laws guiding the motor park where your truck is taking off from, to register as a member of the Road Transport Workers Association. And if you happen to be the driver of the truck, you are also required to register with the Truck Drivers' Association of the same park. An average tax of N3,000 is paid per trip to these two associations. At the exit of the park, another N500 is paid by the truck driver per trip, which is generally referred to as the park Fee.

Checkpoints mounted by security personnel in Nigeria are a common occurrence. Also common are allegations of these personnel demanding payments from the truck drivers. With the heightened security challenges in the country, the number of these checkpoints has increased significantly. According to Mallam Jamilu Abdulmuminu, a truck driver from Dan Magaji Park in Zaria, Kaduna State, before the country started experiencing security challenges, the checkpoints between Zaria and Lagos were between 5 – 7 mostly the Customs or Immigration Officers. But with the rise in the frequency of security challenges, the number rose to between 15 – 25. According to Mallam Abdulmuminu, they now pay between N5,000 – N10,000 at each checkpoint, but previously the highest that he has ever paid was N2,000.

On the economic contour, one of the key counteracting factors is the devaluation of the Naira. According to Alhaji Lawan Usman, Chairman NARTO, Karfi Park Kura LGA, Kano State, because Naira has significantly lost its purchasing power, prices have been adjusted to meet the new reality. This goes without saying that taxes paid previously by vegetable transporters have now increased to meet current realities.

Road Tax Study Background

Food Insecurity is a challenge that is attaining a pervasive dimension in Nigeria. According to UNICEF in its 2023 report[2], "25 million Nigerians are at high risk of food insecurity" if urgent actions are not taken. One of the reasons UNICEF gave in its report for this untoward trend is the general insecurity in the country. Insecurity may be a major contributor to the whole malaise that is driving food insecurity in Nigeria, but outside the insecurity space, there is the poor logistics infrastructure to support the seamless transfer of farm produce to the market. This poor logistics infrastructure created opportunities for

[2] UNICEF Report on Food Insecurity in Nigeria - 25 million Nigerians at high risk of food insecurity in 2023 (unicef.org)

market actors, especially those in the vegetable produce transportation business to charge disproportionate rents. According to Alhaji Harisu Idris, a truck driver at Dutsen Wai Motor Park in Kaduna State, the layers of people to be "settled" (paid) in a trip is so much that the transporters struggle to break even. Alhaji Harisu said he wished there was a system that could regulate the transportation business. It is worthy of note that these untoward rents contribute to determining the eventual price of the produce in the market.

The road tax study on vegetable produce transportation is premised on understanding these various sums paid out in the process of transporting vegetable products from the farm gate to the market. This underscores the overarching study objective of "to assess the current road tax system, including its collection mechanisms (govt known taxes, unknown or unapproved by govt)."

To effectively provide answers to the research questions, two hypotheses were developed to guide data collection. In consultation with the HortNigeria's Component Lead, Sector Coordination & B2B Linkages, Alhaji Abdullahi Umar, the two hypotheses were couched in a systemic change language, to reflect a broader outcome-oriented objective of the vegetable market value chain. The hypotheses are;

1) Incessant and high road taxes (official and non-official), on vegetable produce have a negative impact on the quantity of vegetables transported across markets in Nigeria.

2) The amount paid in taxes (official and non-official), by vegetable produce transporters impacts negatively on the prices of vegetable products in the market.

In testing these hypotheses and by extension providing answers to the research questions, HortNigeria is setting the trail on providing answers to the various constraints of food insecurity in Nigeria. The first is understanding the impact of the amounts paid on road taxes on the prices of food products, especially vegetables in the country. Some of the questions that may agitate the mind are, - are these amounts forcing food prices to rise beyond the reach of the consumers? Are the producers of vegetable produce benefiting from the hikes occasioned by the transportation taxes? What appropriate steps are required to check such a situation and by whom?

This report sets out to answer these and several other queries outlined in the study objectives, with appropriate recommendations in line with the provision of the study's scope of work.

Study Objectives

As provided in the study's term of reference (ToR), the study is categorized into six. The first of the six categories is interested in understanding the road tax system, collection mechanisms and the status of the taxes, either official or otherwise. Study objectives 2 – 5 are interested in understanding the quantitative and qualitative indices of the road taxes like the tax contribution of the vegetable market, quantity of vegetables transported across markets, number of tax collections and amount paid per point. The final bit of the six study objectives sought recommendations based on study findings.

The study objectives as highlighted in the ToR are reproduced below.

1. To assess the current road tax system, including its collection mechanisms (govt known taxes, unknown or unapproved by govt).

2. To establish the tax contribution of the vegetable market

3. To establish the quantity of vegetables transported across these markets on a weekly, monthly, quarterly or annual basis.

4. To establish within each market route, how many tax collection points exist

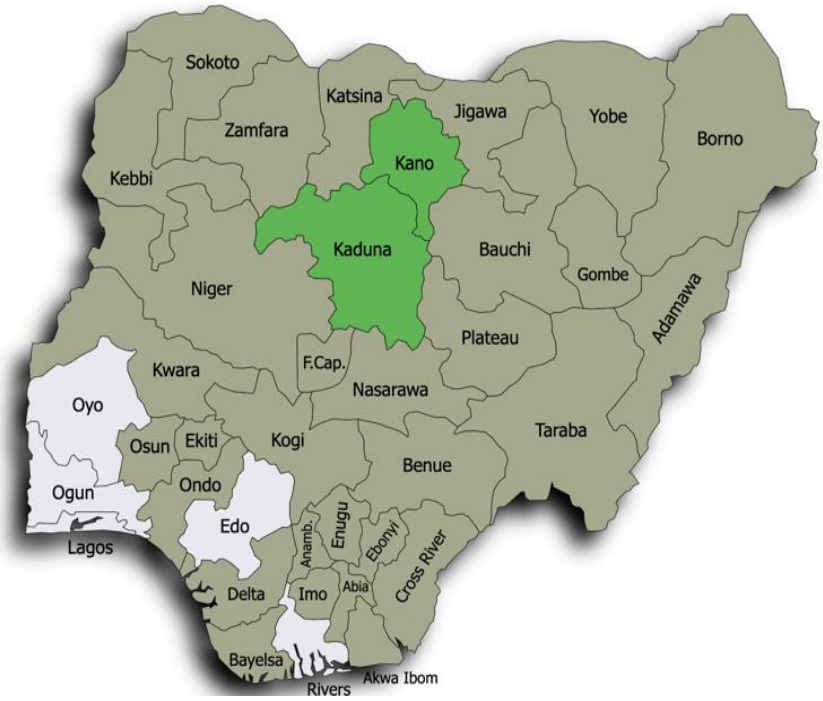
5. To establish the amount of tax payable per truck per route, disaggregated by truck type and route

6. To propose recommendations that will reduce the impact of taxes on vegetable prices.

Scope of the Study

As provided in the study ToR, the study will cover vegetable produce from Kano and Kaduna States, which are called the originating or departure states and marked in green on the map labelled Figure 2. The study destination markets, where the vegetable products are transported to, are five selected markets in southern Nigeria of Oyo, Ogun Lagos, Benin and Port Harcourt, shaded in off-white colour on the map. As indicated on the map, three of the destination markets (Oyo, Ogun and Lagos), are in the south-western part of the country, while Benin in Edo State is in the mid-western part of the country. The fifth destination market, Port Harcourt, which is the capital of Rivers state is in the southern part of the country

FFigure 3: Road Tax Study Routes



Study Methodology

The study methodology section presents the approaches used in determining the sample size for the study, the data collection techniques adopted, the types of data collected and how the collected data were analyzed.

Sample Size

Although the ToR commissioning this study provided a list from which respondents will be selected, determining who amongst these groups will participate as a respondent requires a systematic approach to ensure that relevant stakeholders are engaged and by extension, good quality data is collected for the study. To achieve this, being mostly qualitative research, the study adopted a **Purposive Sampling** technique in identifying respondents from the list provided by HortNigeria. Using this technique, the sampling units that the study investigated were selected based on the researchers' judgement of their experiences or perspectives concerning the five core study objectives.

To apply a 'system' to the selection process, the study adapted the MEALDPro guide[3] purposive sampling size selection criteria as detailed in Table 1 below.

Table 4: Purposive Sampling Methods

S#	Sampling Criteria	Description
1	1. Highly Informed 2. Informed 3. Averagely informed 4. Not Informed	Using the 5 study objectives as a yardstick, respondents from the list provided by HortiNigeria were classified into groups 1 – 4 as listed under the sampling criteria column. Where possible only the respondents that fall in groups 1 and 2 were selected. On very few occasions criteria 3 respondents were used. In such instances, the data collected from the criteria 3 respondents were further validated in other locations.
2	Snowball or Chain Sampling	Starting with the respondents identified in row 1 above, data was collected in stages. After the first stage of the data collection process with the 'known' respondents', the study team then requested the 'known' respondents to recommend other respondents who are equally knowledgeable abouts the study objectives.
3	Cluster Sampling	To effectively answer study objectives 4 and 5, Truck Drivers who are actively engaged in transporting the produce across markets are critical. Due to the huge number of drivers, variation in truck sizes and the routes they navigate, clustering became essential for this segment of the study population Two criteria were adopted in clustering the truck drivers that were interviewed, (1) routes that the truck drivers will be plying within the study timeframe of two months (Dec – Feb) and (2) the Size of trucks in tons that the drivers operate.

The sample sizes for all the criteria mentioned above were based on the provisions outlined in the approved inception report, as presented in Table 2 below.

[3] MEALDPro – A Guide to the MEAL DPro, Monitoring, Evaluation, Accountability and Learning for Development Professionals. Version 1.0, April 2019. License - CC BY-NC-SA 4.0 Deed | Attribution-NonCommercial-ShareAlike 4.0 International | Creative Commons

Table 5: Sample Size

S#	Respondent	Sample Size	Details
1	Transporters – Transport Company	6	3 per originating state – Kano and Kaduna
2	Truck Drivers	30	Kano – Lagos – 3, Kano – Oyo – 3, Kano – Ogun – 3, Kano – Benin – 3, Kano – Port Harcourt – 3, Kaduna – Lagos – 3, Kaduna – Oyo – 3, Kaduna – Ogun – 3, Kaduna – Benin – 3, Kaduna – Port Harcourt – 3
3	Producers	10	Kano – 5 and Kaduna – 5
4	Marketers	15	Lagos – 3, Oyo – 3, Ogun – 3, Benin – 3, Port Harcourt – 3
5	Tax Officials	4	Kaduna – 2 and Kano - 2

DATA COLLECTION

The road tax study adopted a combined data collection approach of qualitative and quantitative techniques, with significant emphasis on qualitative technique, as most of the data required can only be culled from the active market actors' institutional memory of the sector gained over time. As a result, the study dedicated time to carefully selecting these respondents.

In collecting the qualitative and quantitative data, three methodologies were adopted- 'Active Observation', Key Informant Interviews (KII) and Focus Group Discussion (FGD). The three approaches adopted are outlined below.

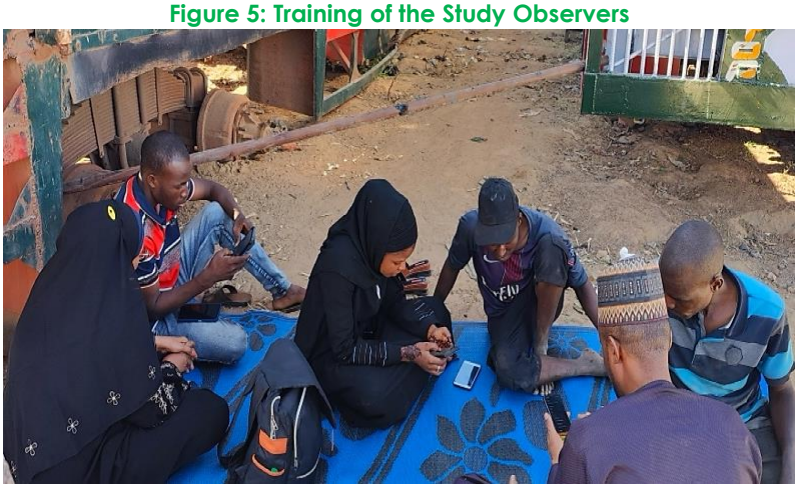
ACTIVE OBSERVATION (AO)

For this study, the respondents were grouped into three, (1) government tax officials (2) Producers, Marketers or Aggregators of vegetable produce and, (3) Transporters of vegetable produce. Because of the informal nature of the latter category, primary data can only be obtained through active observation. Most of the vegetable transporters only keep mental records of the taxes they pay, and even at that, only the most recent payments can be remembered. Consequently, the only approach to obtaining primary data from this group of market actors was through active observation.

Also, because of the road usage laws in some states, for example, Kaduna and the Federal Capital Territory, where trucks are only allowed to ply the roads between 6 pm – 6 am daily, vegetable transporters, who mainly use long vehicles between 18 – 48 metric tons, travel only in the nights. As a result of this and for security purposes, the study team used the truck drivers and their assistants as observers.

To achieve this, a simple observation tool was developed using kobotoolbox[4], (a computer-aided data collection interface), and deployed on the mobile phones of the truck driver and assistant. The truck driver and assistant were then trained on how to use the road tax track tool, using various pre-test sessions. While on a trip transporting vegetable produce to any of the target markets, the truck driver or assistant is expected to fill out the form at every checkpoint where tax is demanded. While the truck driver is engaged with the tax collectors, the assistant cautiously documents the process using the mobile app deployed on his phone. Where it is not safe to do the documentation at the point where the road tax was demanded, the driver will drive to a safe location before the next checkpoint and fill out the form. The filled form is transmitted immediately upon submission to the research team.

Figure 5: Training of the Study Observers



Using the active observation approach, both quantitative and qualitative data were collected.

Key Informant Interview (KII)

Government Tax Officials and private Transport Company Owners, who are seemingly more organized and may have structured systems that can easily be referenced were categorized under the Key Informant Interview data collection methodology. From these respondents, the study was interested in collecting data that will provide answers to the research question on types of taxes – official and non-official. An interview guide with a set of questions was developed and used during the interviews. Some of the respondents in this category requested that the KII questions be mailed to them ahead of the interview, to which the study team complied. Both Qualitative and Quantitative data were collected from this technique.

Focus Group Discussion (FGD)

Respondents like the National Road Transport Workers Association officials, Truck Drivers and their unions and Truck Park managers fall under the category of respondents to whom the Focus Group Discussion technique was applied in collecting data. This technique was adopted for this group of respondents for several reasons, the top among which is their number and the possibility of most of them using "recall". Because of the informal nature of the system these respondents operate in, they are not required to keep records of activities within that sphere, hence they rely on 'recalls' to answer questions about to their operations.

[4] KoboToolbox

Like the KII, a set of questions was also developed that guided the conduct of the FGD. Four research team members participated in all the FGDs, with the following roles (1) Interviewer, (2) Translator, and (3) two note-takers. Most of the data collected from the FGD technique were qualitative data.

Questionnaire

Other key actors in the road tax study like the vegetable producers, vegetable marketers and aggregators participated in the study through a structured questionnaire deployed to their mobile phones. The tool for this set of respondents was developed using Kobotoolbox earlier reference above. The data collected from this set of respondents was mainly quantitative data that could aid the answers to research question 2 - "to establish the tax contribution of the vegetable market".

Data Analyses and Presentation

As stated earlier, a mixed method of qualitative and quantitative techniques was adopted for the study. The two techniques informed the kind of data expected from the three data collection methodologies used for the study. For the KIIs and FGDs qualitative data was mostly collected with sparing quantitative data from time to time. In the structured Questionnaires deployed through the computer-aided data collection interface called Kobotoolbox, quantitative data forms the majority of the data that was collected through that platform. How the data from the various approaches used for the study were treated is detailed further below.

KIIs and FGDs Data

The qualitative data obtained from the Key Informant Interviews (KII) and Focus Group Discussions (FGDs) was transcribed and systematically organized. The set of questions employed during interviews served as headers to categorize and group the collected data. After the transcriptions and groupings, data quality assurances were conducted through data comparison, trend analysis and revalidation of responses through phone calls to respondents. The next task was coding the data using key criteria from the research questions to identify themes, matches, frequencies and outliers.

Structured Questionnaires

Quantitative data collected through the structured questionnaires deployed to respondents' mobile phones were received as a database, which was exported to Microsoft Excel. Advanced Excel codes were then applied in analyzing the transported data into tables and charts to establish frequencies and patterns that will inform answers to the research questions.

The analyzed data from the two data analysis approaches mentioned above were then organized into two reporting formats. The first is the PowerPoint presentations mainly with tables and charts and the second is the narrative reporting using the table and charts from the PowerPoint presentation as raw data.

Section Two

Narrative Reporting

This section presents the findings from the road tax study using the tables and charts from the analyzed data to systematically provide answers to the six study objectives.

Study Objective 1: To assess the current road tax system, including its collection mechanisms (govt known taxes, unknown or unapproved by the govt).

As indicated in the objective 1 statement above and emphasized further in the introductory section of the report, road taxes paid for transporting vegetable products across markets are broadly categorized into two – official and non-official taxes. For an in-depth assessment of the "current road tax system", the two categories will be analyzed separately and at the end, a synopsis tying the two categories together will be presented. The first category been the official or government "known" road taxes is explained below.

Official or Government "known" Road Taxes

According to Dr. Lawal Mohammed, the Kaduna State Executive Director of Tax Operations, tax issues generally are in the exclusive list, as a result, the onus of determining what to pay in taxes and how much to pay rests on the Federal Government. Therefore, all official pronouncements on items or services to be taxed are the prerogative of the Federal Government of Nigeria, and the Joint Tax Board (JTB), represents the vehicle used by the federal government in delivering such mandate. Any time taxes or its processes or procedures are reviewed, the JTB through the Federal Ministry of Finance issues an official gazette to communicate such changes to the public. The last gazette that was issued was on 4th, January 2021[5].

Once the JTB through the Federal Ministry of Finance approves and publishes the tax guidelines, the state governments who are also members of JTB will then proceed to enact enabling laws and set up structures that will facilitate the collection of the approved taxes. In the case of Kaduna and Kano, tax collection mechanisms have been harmonized. In Kaduna State, as shared by the State's Executive Director of Tax Operations, the state government oversees all collections. The state's local JTB meets to distribute the proceeds of the taxes collected based on an agreed sharing formula, between the state, LGAs and other parastatals within the state with a mandate to partake in the sharing of the collected taxes.

In Kano, the structure is slightly different. According to Alhaji Sammani Ibrahim, Director of Kano State Inter-Ministries Coordination in consultation with the LGAs, the approved taxes from the federal government are broken down further into categories that suit the specific needs of the state. The broken-down taxes are then printed on emblem sticker shapes, which are shared with the LGAs. Thus, both the state and the LGAs have the same emblem stickers, and the public is free to collect either from the state or the LGAs.

For the two states, the road taxes payable by vegetable product transporters are listed in Table 3 below.

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5 Finance-Act_2020.pdf (jtb.gov.ng)

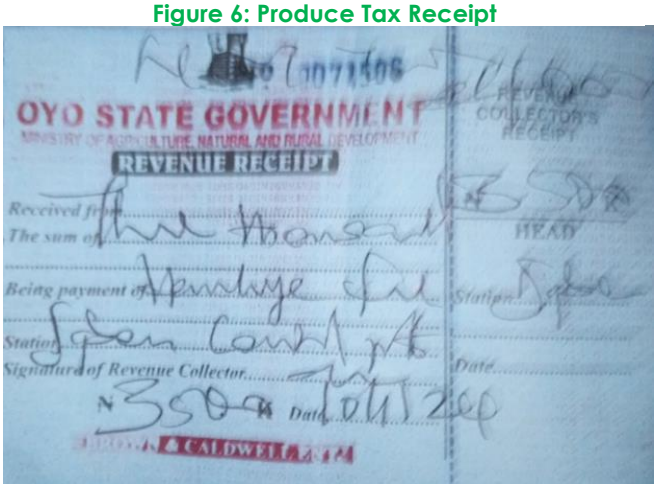
Table 6: Officially Authorized Taxes – Required per trip.

S#	Tax Type	Do they Collect this Tax?		Amount	
		Kaduna	Kano	Kaduna	Kano
1	Single inter-state road tax sticker	Yes	Yes	₦400	₦600
2	Single Haulage fee payable at the point of loading in the state of departure	Yes	Yes	₦7,500	₦6,000
3	Single Haulage fee payable at the point of discharge of the goods.	Not for Vegetable Products		0	0
4	Gaseous Emission Permit	Yes	Yes	₦300	₦350
5	Stage Carriage, Driver's & Conductor's Badge	Yes	Yes	₦200	₦300
6	Agricultural Produce Levy (Vegetable Produces)	Waived		0	0
7	Operational Permit Clearance Certificate	One-off optional payment that encompasses all the various taxes listed above			
8	Consolidated Clearance Certificate				
Total Road Tax Required from farm gate to market				₦8,400	₦7,250

For this study, the officially approved taxes will be further subdivided into two, the first is a list of those required per trip and the second is for those payable annually or for privileged services like signages, roadside parking etc.

Table 6 above highlights the official road taxes that commercial transporters like vegetable products transporters are required to pay for every trip made from the two source states (Kano and Kaduna). However, as earlier stated, the agricultural produce levy on vegetable products has been waived in the states. The story is slightly different in the five destination states. According to Abubakar Mamman, a driver plying the Kano – Oyo – Lagos routes, "produce levies are collected in these states, but not frequently". "… sometimes I will make up to four trips without encountering the produce tax collectors." Mallam Abubakar's story was corroborated by Alhaji Kabiru Haruna, also a driver plying the same route from Kaduna State. According to Alhaji Kabiru, before his last trip in January, it's been almost 3 – 4 months since he paid produce tax, but in January he met the produce tax collectors and paid N3,5000 to which a receipt was issued, as can be seen in figure 6. In summary, therefore, produce tax is not waived in the destination states, but is collected infrequently.

Figure 6: Produce Tax Receipt



As shared by the Kaduna State Executive Director of Tax Operations, vegetable producers are categorized as SHFs hence, the state governments view the waiving of the produce levy as an act of encouragement to the producers.

Figure 7: Officially Authorized Taxes – Paid annually or for privileged services

S#	Tax Type	Do they Collect this Tax?		Amount	
		Kaduna	Kano	Kaduna	Kano
1	Motor vehicle registration, which is done annually, with several other sundry items like fire services levy, road user levy, roadworthiness, radio and television levy, plate number etc.	Yes	Yes		
2	Haulage and Cabotage Fees	Applicable to other agricultural products, not vegetables			
3	Signages and Mobile Advertisements for vehicles with company branding	Yes	Yes		
4	Single parking permit sticker	For Trucks parked by the roadside		Trailers – ₦1,500 Mini Trucks – ₦1,000 Buses – ₦500	
5	Produce buyer License	Not applicable to vegetable products			

Table 7 above presents the second classification of road taxes that, though mandatory, does not fall in the immediate class of those required for daily transportation of vegetable produce from farm gate to market. The first in the list is a requirement for every motorist, which is incurred once a year, while the numbers 2 and 5, though taxes are charged on other agricultural products, vegetable products are exempted from them. Numbers 3 and 4 are for privileged services, hence, cannot be counted as a requirement for the daily transportation of vegetable products.

Collection Mechanism

Kaduna State

According to the Executive Director of Tax Operations (Dr. Lawal), tax collection in Kaduna is done through a single vehicle manned by the State's Internal Revenue Board. This vehicle is mandated by the States Joint Tax Board (SJTB) to collect all taxes on behalf of the state, LGAs and other parastatals in the state like Water Board, Ministry of Land, Fire Services etc. The collected taxes are shared quarterly with the various entitled state organs. A distribution formula as decided by the SJTB is applied in distributing the Taxes to the relevant state institutions.

The physical collection of the taxes is done through two channels. The first is remittance through banks and the second is through a collection agent - "Interswitch". According to Dr. Lawal at the beginning of every quarter, the forecasted revenue for that quarter will be communicated to Interswitch, with the understanding that such forecasted sums will be remitted to the state either at the beginning or end of the quarter in question. Interswitch on its part uses tax collection kiosks across the state, where taxpayers are at liberty to pay cash or through bank transfers.

Kano State

Unlike Kaduna State, Kano State's tax collection system is a decentralized approach between the LGAs and the state. According to Alhaji Sammani Ibrahim, the Director of Inter-Ministries Coordination, the tax collection process is divided between the state and the LGAs, with each entity having its own jurisdiction known to the other hence, there is no conflict in the collection process. The point of convergence for the two tax-collecting entities (state and LGAs) is in what to collect. According to the Director, Kano State has harmonized all its taxes to be collected in the state and published the same in a gazette called "Kano State and Local Government Revenue Administration (Codification and Consolidation) Amendment No. 2 Law, 2023 (1444 A.H)." The Director stressed further that, based on the harmonized law passed by the Kano State House of Assembly in Feb 2023, no authority, either from the state or LGAs is permitted to collect any form of taxes in Kano State outside those listed in the amended law. Consequently, the state and the LGAs authority agreed to print all common taxes into emblem stickers and are administered appropriately within each authority's jurisdiction.

As amplified in Table 6 above, the total amount payable in taxes for vegetable produce transporters and the likes per trip is ₦7,250. This amount is shared evenly between the state and LGAs par collection.

To address the long lists of taxes that vehicle owners are required to pay, especially the vegetable transporters, the Kano State Director of Inter-Ministries Coordination said the states came up with two certificates that cover all the frequently demanded levies. The first is the Consolidated Clearance Certificate and the second is the Operation Permit Clearance Certificate as indicated in Figures 5 and 6.

Figure 5: Consolidated Clearance Certificate

According to the Director, the state acknowledges the economic challenges in the country, and is aware that some transporters might struggle to pay the consolidated and operational certificates at once, hence allowing the existence of the other emblem stickers that were consolidated into these two certificates. Should a transporter wish to pay for the two certificates at once, he/she will require ₦7,250 for Kano and ₦8,400 for Kaduna. Where they choose to pay in piecemeal, the value will be the same as the two consolidated certificates, at the end of the day.

Figure 6: Operational Permit Clearance Certificate

In summary, therefore, the officially recognized taxes charged by the Kano and Kaduna State Governments for transporting vegetable products from these states per trip is ₦7,250 and ₦8,400 respectively. The collection mechanism in the two states is by electronic means through transfers to specified banks. Kaduna State also has an alternative arrangement with "Interswitch" a fintech company serving as a tax collection agent.

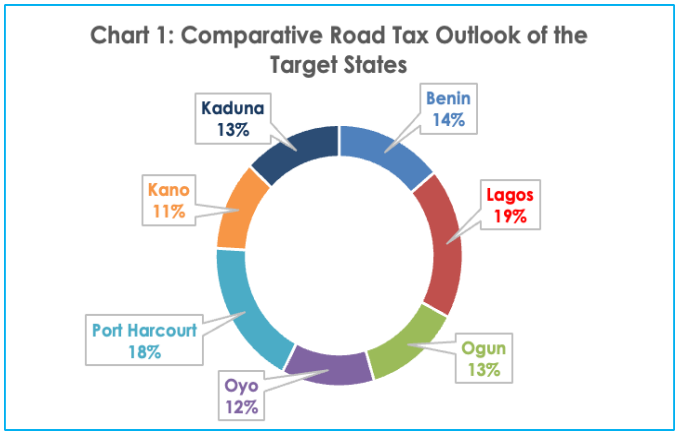
DESTINATION MARKETS' VEGETABLE PRODUCTS OFFICIAL TAX PROFILE

Like the tax practices in Kano and Kaduna States, the five destination states where vegetable products are transported also charge various taxes on transportation and sales of vegetable products. As indicated in Table 8, eight different types of taxes are required, four in the process of transportation and the other four are required either at the point of delivery or at the point of sales. Unlike the Kaduna and Kano where a transporter has an option of a one-off payment through the consolidated mechanism, INL is not aware of similar arrangements at the destination states. It may exist, but for the unfriendly nature of tax collectors, the researchers were not privy to such arrangements.

Table 8: Taxes Charged on Vegetable Products	
1	Park Levy
2	Road Tax
3	Market Stickers
4	LGA Tax
5	Association Levy
6	Market Tax
7	Environmental
8	Inter-State Road Tax

Using the originating states of the vegetable products as the denominator once again in assessing the taxes payable at the destination states, Chart 1 compares the vegetable products transportation tax burden of each of the 7 states in percentiles.

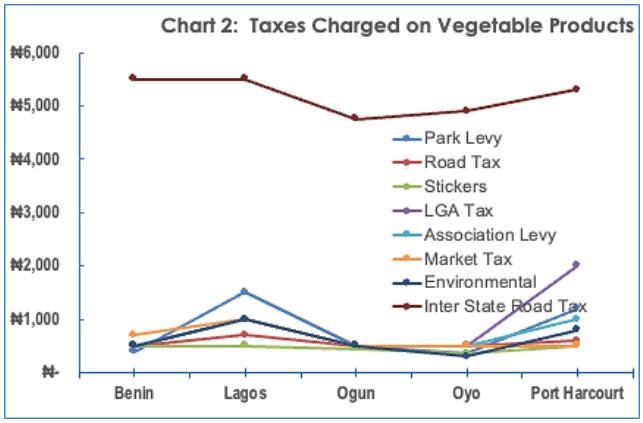
As presented in Chart 1, Port Harcourt and Lagos topped the chart with 18% and 19% respectively on the amount required by vegetable transporters in road taxes within the state. Oyo and Ogun States are within the vicinity of the vegetable products originating states of Kaduna and Kano, with 12% and 13% respectively, while Kano and Kaduna States are charging 11% and 13% respectively. Benin is slightly above the originating states at 14%, but considerably trailing Port Harcourt and Lagos.



To arrive at the percentages presented in Chart 1 above, the sums charged in road taxes that are mandatory to vegetable transporters were aggregated and the cumulative sums were used as the denominator for all the seven states as presented in Table 9. For each of the taxes listed in Table 8 above, the seven states have a slightly different rate that is charged. All those rates were pulled together per state and summed up to arrive at the figures in the column called taxes in Table 7. The rates charged for each of the taxable items that transporters of vegetable products pay are compiled and presented in Chart 2. As indicated in Chart 2, the most telling of the eight tax headers is the "interstate road tax". According to Mrs. Esther Umar, a vegetable marketer in Benin City, interstate

Table 9: Aggregate Taxes

Target States	Taxes
Benin	₦ 9,100
Lagos	₦ 12,200
Ogun	₦ 8,200
Oyo	₦ 7,900
Port Harcourt	₦ 11,900
Kano	₦ 7,250
Kaduna	₦ 8,400

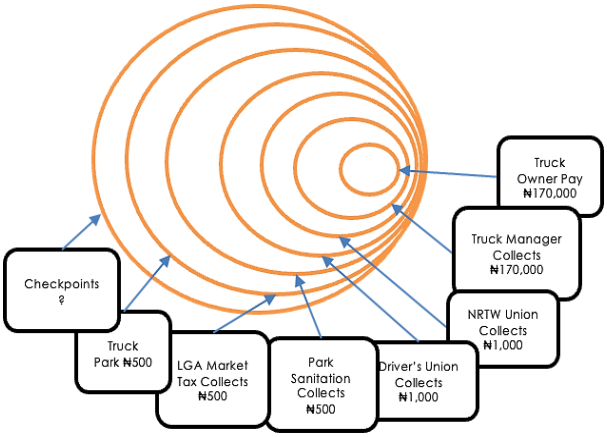


road taxes are charged on produce bought from other states. In our case, she narrated further, that because of the bad road, vegetable products coming from the north are mostly sold in Kogi State, making them cheaper there. According to Mrs. Umar, they commute to Kogi State to buy the vegetable produce, hence, the interstate charges that they had to pay. As indicated in Chart 2, the least interstate tax payable in the destination states is about N4,500. Other charges in the list are between N200 – N2,000 across the destination states.

Unofficial Road Taxes

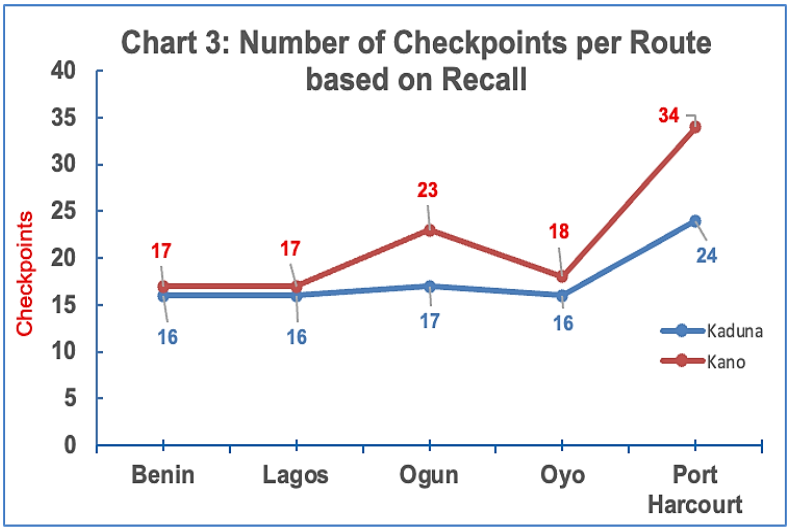
As the name implies, unofficial taxes are the amounts paid by transporters of vegetable products that are not officially sanctioned by the government, while transporting the products from farm gates to markets. Like a spiral as depicted in Figure 8, at the inner core of the spiral is the owner of the truck who is expected to pay huge amounts in road taxes after every load of vegetable products to be transported to the destination markets. At the outer core, are the various market actors waiting for 'cuts' from the proceeds of the purported road tax money the owner of the truck is expected to pay. This is a common practice across all vegetable aggregation and distribution centers in both Kano and Kaduna States, all of which are unofficial tolls collected in the name of road taxes.

Figure 7: Unofficial tax spiral

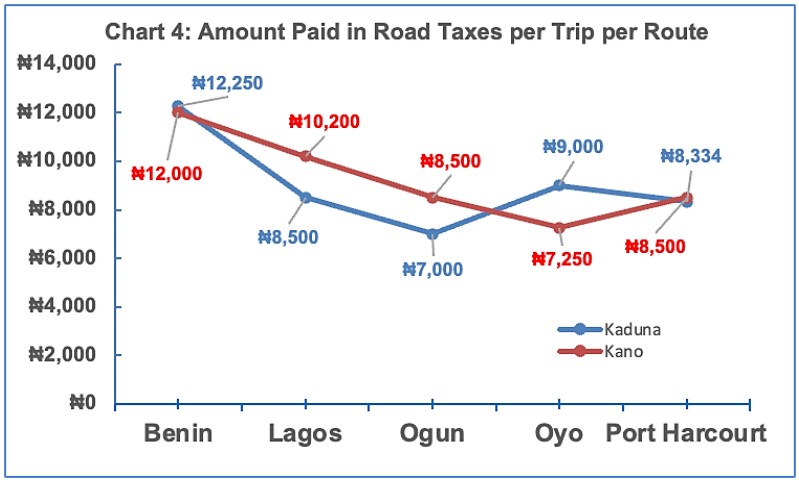


The circle of these unofficial taxes paid by transporters of vegetable products in the two states are as wide as the number of market actors one engages. The geography of these market actors may also add additional dimensions or depths to the spiral. The market actors that form this spiral are mainly gatekeepers with both progressive and adverse influences on the vegetable transport business sector. In most cases, according to Alhaji Dalhatu Umar, a truck driver from Dusten Wai, Kaduna State, these actors have strong ties with the producers of the products and in some cases, with "angel investors", willing to invest in the business behind the scenes. These seeming gatekeepers, Alhaji Dalhatu reiterates, facilitate business connections between the producers and the investors, and at post-harvest, introduce the truck drivers to the producers, which he said enhances their businesses.

The downside of these market actors is in how they bleed the system and make it too cumbersome taxwise to operate. The pain, according to Alhaji Gambo Hashim, a large-scale vegetable producer in Kura, Kano State, starts with the major actors like the truck managers, truck drivers and the union officials in various truck parks acting in cahoots to demand huge sums ranging from ₦150,000 - ₦200,000 from the truck owners, as sums required for road taxes at the various checkpoints. Once a truck is loaded with vegetable products heading to the destination markets in the south, this huge checkpoint levy must be deducted and handed over to the truck driver before the truck embarks on the journey to deliver the products, Alhaji Hashim shared. According to another active market actor, Mallam Shehu Abu, NARTO Vice Chairman also doubling as Trucks Manager, the checkpoints to the destination markets, especially those targeted by this study are innumerable. The least checkpoints on these routes are between 20 – 25, he reiterated. Mallam Shehu's submission is substantiated by the aggregated views of the KII and FGD respondents on the number of checkpoints on the study routes. As indicated in Chart 3, an average of 19 checkpoints were shared by the respondents from Kaduna State and 22 from Kano to the five destination markets. All these submissions were based on what the respondents can recall, both of which are slight embellishment of the reality.



Because all the actors are unanimous in their belief that the checkpoints are significantly high in number, that simply gives credence to the large down payment that every transporter must pay to the truck drivers as "road money" meaning the amount of money required to be paid in taxes between the originating market to the destination markets. This "road money" guarantees the safe delivery of vegetable products from the source markets to the destination. As indicated in Figure 7, once a truck is loaded with vegetable products, and the sums demanded for road taxes are paid by the truck owner, the truck driver, in turn, pays all the market actors in the spiral from the money collected from the truck owner for road taxes.



As highlighted in Chart 4, being the aggregate responses of the KII and FGD respondents, per checkpoint from Kano State to the destination markets, an average of ₦9,290 is required to ensure free passage of the vegetable products. In the case of Kaduna State, an average of ₦9,019 is required per checkpoint.

This narrative that the high number of checkpoints and the excessive sums demanded per checkpoint by the authorities manning them are initiated by the truck drivers and propagated by the union members, who themselves were once truck drivers and now direct beneficiaries of the exorbitant sums paid by truck owners in road taxes.

When all these amounts are summated, it is not difficult to deduce why the tales of high road taxes on vegetable products transportation are institutionalized as a critical part of the trade. Currently, in Kano State, from the findings of the KIIs and FGDs, an average of ₦198,480 is required in road taxes for vegetable products departing the state to the destination markets. For Kaduna State, an average of ₦158,803 is required. These figures, though charged by vegetable transporters, are poles apart from the reality of what is required in road taxes, even with the high number of checkpoints on the road.

The Checkpoints

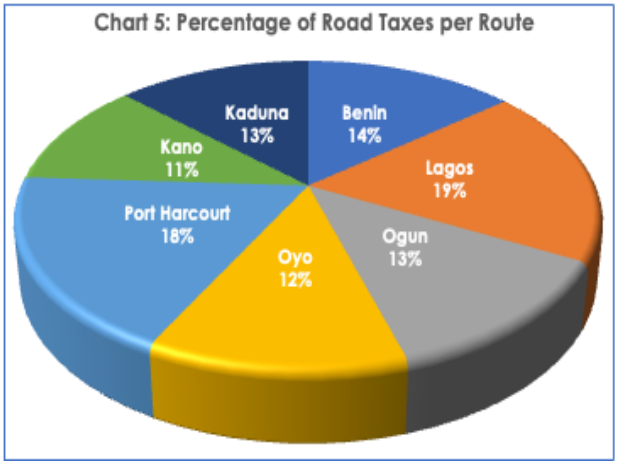
The legitimacy of the unofficial, yet exorbitant road taxes charged for transporting vegetable products across markets is anchored in the number of checkpoints on the highways. The truck drivers argued that the more checkpoints erected on the roads, the more road taxes they are expected to pay. Equally, these checkpoints which serve as the collection mechanisms for the unofficial road taxes, also gained their legitimacy from the pervasive insecurities in the country. According to Mallam Abdulkarim Nuhu, a NARTO member, in an FGD season, once there is an escalation in the instances of insecurity in the country, the number of checkpoints on the highway will increase, and they are never removed, even when the security challenges deescalate.

Figure 8: FGD with NARTO Officials

In summary, therefore, unofficial road taxes are occasioned by the security challenges in the country, which forces the authorities to set up checkpoints on the highways to curb such challenges. But unfortunately, the untoward tendencies of some of the security operatives manning the checkpoints are actively being exploited by the truck drivers. There is no gainsaying that the security operatives at the checkpoints demand gratifications from the truck drivers transporting vegetable products, but the amounts reported by the truck drivers, as payment to security agents at the checkpoint are disproportionate to the exact amount eventually paid.

Study Objective 2: To establish the tax contribution of the vegetable market

To establish the contributions of vegetable products with a reasonable degree of accuracy, all the tax receipts issued to the Study Observers, and the entries in the "road tax tracker" developed by the study to document the amount of untheorized solicitations in the name of road taxes, were aggregated and a weighted averaged calculated by route. As presented in Chart 5, across all routes to the destination markets, vegetable transporters pay an average road tax of 15%. At the source markets on the other hand, an average of 12% is required in road tax for vegetable products transported to destination markets.



However, referencing the road tax pie as can gleaned in Chart 5, Lagos and Port Harcourt routes, share almost similar percentile of road tax pie of 19% and 18% respectively while Benin, Ogun and Oyo markets trail with 14%, 13% and 12% respectively.

Study Objective 3: To establish the quantity of vegetables transported across these markets on a weekly, monthly, quarterly or annual basis

In responding to the research question posed by study objective 3, the key market outlets from where the vegetable products are assembled at the two source states of Kano and Kaduna will be used as the nodal points. Also, for a reasonable quantification of the products that are transported from these markets, the types of trucks and their capacities in metric tons will be used as the benchmark. The two states will be aggregated, and the collection and distribution outlets of the vegetable products treated separately and at the end, a summative view of the vegetable products from these markets will be presented. It is also worthy of note that the study took the monthly option of measuring the quantity of vegetable products transported across markets, from the various options offered in study objective 3 above. As it is the pattern used by the truck drivers themselves in determining their level of effort. As shared by Musa Salihu, a truck driver during an FGD with truck drivers, each of the drivers strives to make at least 4 trips in a month, to break even. Alhaji Aliyu Saidu, a driver from Dan Magaji, Kaduna corroborated this position by sharing that, except there is a problem either with the vehicle or the driver himself, "none of us want to make less than 4 trips in a month."

Figure 9: FGD with Truck Drivers

Vegetable Season

In the source's states, there are two main seasons for the production and distribution of vegetable products across markets, which are the dry season which commences toward the end of the year and terminates, before the next rainy season which is between May – Nov. Within these seasons, vegetables are aggregated by marketers and transport companies or individuals for distribution to other markets outside the source states, especially the five destination markets targeted by this study. For this study therefore, three aggregation and distribution centers per source state will be used as reference points in gauging the activities of the vegetable market and its transportation. According to Alhaji Hamisu Gambo, a vegetable products producer in Kura, Kano States, during an FGD with the Ungwa Uku Union Officials, these markets, are the most prominent in aggregation and transportation of vegetable products to the southern states. The Kano Markets are (1) Sarina, (2) Ungwa Uku and (3) Gun Dutse for Kano State. For Kaduna State on the other hand, according to Mallam Kabiru Haruna, (1) Dan Magaji 1 and (2) Dan Magaji 2 trail Parks and (3) Dutse Wei are the most active centers in vegetable aggregation and distribution, "…that is why most of us truck drivers are always gathered around the three centers."

Figure 10: FGD with Ungwa Uku Union Officials

Also, for this study, four vegetable products will be emphasized, (1) tomatoes, (2) pepper, (3) Onions and (4) Okra. These four products are the ones "in-season" at the time of this study, hence the emphasis on them. Others like watermelon, carrot, cucumber, lettuce etc., are available but in trickles. According to Alhaji Saidu Ibrahim, all transporters are concentrating on vegetable products that are available in large quantities, according to him tomatoes, pepper, onions and to some extent, okra are the only products that they are transporting at this time.

The data collection for the road tax study commenced towards the end of December 2023 when the last wet season harvests were gradually coming to an end and planting for the dry season of 2024 is commencing. Consequently, a holistic review of the quantities of vegetables ferried to the five destination states was not feasible. However, the little that was available within that window was calculated using the six collection and transportation centers in the two source states as the sample size.

As presented in Table 10, the areas shaded yellow are the active period of vegetable harvest and sales, while the listed communities under the column titled "production zones" are the areas where vegetables are mostly produced in the two states. The quantities of vegetables transported in the target collection and transportation centers studied are presented by source collection and distribution outlets.

Table 10: Production Seasons and Regions in the two source states

State	Vegetables	Production Zones	Production Season											
			Jan	Feb	Mar	April	May	June	July	August	Sept	Oct	Nov	Dec
Kano	Tomatoes	Kwanar Gafan, Gabasawa, Sumaila, Bagwai,Bunkure,Kura - Bichi, Tofa, D/Tofa, Rimin Gado, Minjibir, Kumbotso, D/Kudu & Garko												
	Onion	Bunkure,Rano,Badume, Dawanau,Bichi,Warawa,Kura - Garko, D/Kudu, Kumbotso, Minjibir, Rimin Gado, D/Tofa, Tofa & Bichi												
	Pepper	Gwarzo, Bagwai,Bunkure,Gabasawa,Rano,Kura,Garun mallam - Kibiya, Kumbotso, D/Kudu, Tofa, Rimin Gado, Minjibir & Garko												
	Okra	Sumaila,Kibiya - Kura, Kumbotso, D/Kudu, D/Tofa, Tofa, Bichi & Minjibir												
Kaduna	Tomatoes	Zaria,Makarfi,Dutsenwai,Soba,Ikara,Kubau - Kudan, Igabi, Sabon Gari, Kayadda, Giwa,												
	Onion	Zaria,Makarfi,Soba,Ikara,Kubau - Kudan, Igabi, & Sabon Gari												
	Pepper	Ikara,Igabi,Kubau,Lere,Sabon gari - Kudan, Makarfi, Soba Kayadda-Lere,& Kauru												
	Okra	Sabon gari, Zaria, Soba - Kubau, Ikara, Kudan, Makarfi, Anchau & Pambegua & Giwa												

The Collection and Distribution Centers

There are several vegetable collection and transportation centers in the two source states, but as stated earlier, because of the period when this study was conducted, only a few of these centers were actively engaged in the transportation of vegetable products. As a result, the study concentrated on the six major ones (3 per state)- (1) Sarina, (2) Ungwa Uku (3) Gun Dutse in Kano State and (4) Dusten Wai, (5) Dan Magaji 1 and (6) Dan Magaji 2 in Kaduna State. For emphasis, Dan Magaji 1 uses heavy utility trucks for plying vegetable products, while Dan Magaji 2 uses medium-sized trucks and buses. Even though the two collection and distribution centers bear almost similar names, they operate from relatively different locations, with different management and operational modalities.

In determining the quantity of vegetables transported across markets, two approaches were adopted. The first was through the KII and FGDs with the truck drivers, where each was asked to state the capacity of his truck and the quantity and type of vegetables he transported on his last trip. To avoid 'recall' challenges, the study team insisted on collecting such data from drivers' whose last trip was not later than a week from the day of data collection. The second approach was through the questionnaire deployed to the phones of the drivers who will be serving as Observers in the study. Each driver was requested to state the type, quantity and destination of the vegetables they will transporting that week to the destination markets. The essence of adopting these elaborate approaches is to ensure that the study obtains qualitative data, as much as possible.

The first outcome of the elaborate methodology adopted in arriving at the quantity of vegetables transported across the market is an overview of the type of trucks used at the collection and distribution centers, the truck's capacities in tonnage and the quantity of vegetable by type, that each of the trucks can carry. It is noteworthy here that at the vegetables collection and distribution centers in the two source states, trucks used for transportation are identified by the number of wheels each carries as can be seen in Table 11. General five distinct types of trucks are used to convey vegetable products to the destination markets, which are 22, 18, 14, 12 and 6 Wheelers respectively. All the

Table 11: Truck Type, disaggregated by truck capacity, Quantity and Type of Vegetable Products transported per Trip

Truck Types (In wheels per truck)	Capacity (in tons)	Tomatoes (Basket)	Pepper (100kg Bag)	Onions (100kg Bag)	Okra (100kg Bag)
22 wheeler	40	600	677	387	796
18 wheeler	32	280	350	937	969
14 wheeler	28	120	70	527	415
12 wheeler	24	60	30	96	408
6 wheeler	16	40	45	53	74

vegetable collection and distribution centers in the two source states use the first 4 truck types, except for Dan Magaji 2 in Kaduna State and Gun Dutse in Kano State. At Dan Magaji 2, only the 6 Wheelers are used, while at Gun Dutse, they combine the 6 Wheels with all the other truck types mentioned above.

On the whole, as stated earlier, the essence of this elaborate approach is to ensure that whatever figure is railed out by the market actors as the quantity of vegetable products they transported, it should be in tandem with their carrying capacity. Hence as presented in Table 8, a 22 -Wheeler truck can carry up to 600 crates or large baskets of tomatoes, and 677 – 796 (100kg bags) of pepper and Okra. For Onions, it can only carry 387 (100kg bags). The sequence is similar to all other truck variants. Broadly speaking therefore, four of the truck types used at all the collection and distribution centers are high utility trucks with massive carrying capacities ranging from 120 – 600 baskets of tomatoes and 70 – 677 bags of onions and so on.

Vegetable Products Transported

The timespan for data collection for the road tax study on vegetable products transported across markets was between the end of Dec 2023 and mid-Feb 2024. Within that window, the vegetable market and by extension, its transportation have started experiencing partial off-season lulls. Starting the presentation with what was transported from the source markets, as presented in Table 12, a total of 116,595 large baskets of tomatoes were

Table 12: Quantity of Vegetables Distributed Across Markets

Source Markets	Tomatoes (Basket)	Pepper (100kg Bag)	Onions (100kg Bag)	Okra (100kg Bag)
Kano	63,929	29,071	45,336	7,214
Kaduna	52,667	47,667	29,833	6,167
	116,595	76,738	75,169	13,381

transported within the study timeframe to the five destination markets. Whereas, pepper, onions and okra, totaling 165,288 (100kg bags) were transported from the 2 source markets to the 5 destination markets. According to Alhaji Kabiru Haruna, on average, a heavy duty-truck of between 14 – 22 Wheels can carry between 120 – 600 standard creates or large basket of tomatoes to the south. Alhaji Kabiru's position was further corroborated by Mallam Maharazu Aliiya, a driver from Kano, who shared that on average, each truck makes at least four trips in a month when products are available, and "per truck like mine" (an 18 Wheeler truck), 280 - 300 crates of tomatoes can be loaded, depending on the loading skills of the truck assistant.

Distributions to the Destination Markets

Triangulating between the data on distribution patterns to the destination states, culled from the KII and FGD, and those from the Observers' independent responses, the quantity of vegetable products from the two source markets were distributed to the destination markets as presented in Table 13. Lagos and Port Harcourt markets share the largest proportion of tomato products from the source markets within the period under review of 20.2% while the other three states of Benin, Ogun and Oyo shared the remaining.

Table 13: Percentage Distribution of the Vegetable Products to the Destination Markets

	Tomatoes (Basket)	Pepper (100kg Bag)	Onions (100kg Bag)	Okra (100kg Bag)
Benin	7.6%	5.0%	4.9%	0.9%
Lagos	10.2%	6.7%	6.6%	1.2%
Ogun	6.9%	4.5%	4.4%	0.8%
Oyo	6.6%	4.4%	4.3%	0.8%
Port Harcourt	10.0%	6.6%	6.4%	1.1%
	41.4%	27.2%	26.7%	4.7%

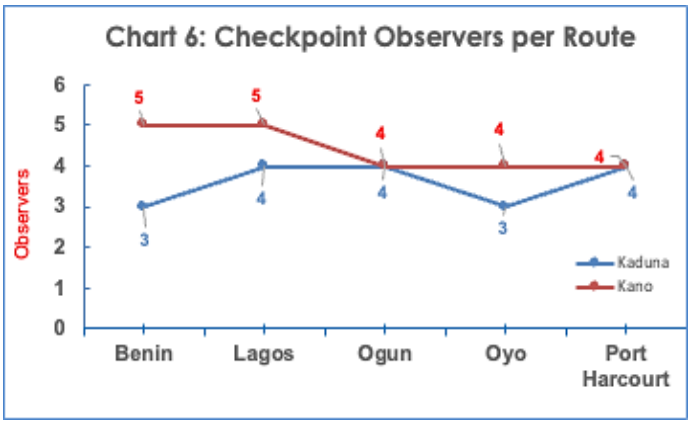
Objective 4: To establish within each market route, how many tax collection points exist

In the vegetable transport business, tax collection points are not explicitly labelled as such. Instead, like a cliché that euphemizes the actual role that the tax collectors play, the locations where the taxes are collected are called "checkpoints". The 'tax collection points' euphemism for Checkpoints also derived its legitimacy from the untoward attitude of some of the security personnel on the highway, who demand gratifications from the vegetable products transporters. Consequently, across Nigeria, tax collection points became synonymous with checkpoints. For this study, tax collection points will be used interchangeably with checkpoints. According to statements from, Akilu Yunusa and Jamilu Abdulmuninu, truck drivers operating from Dan Magaji Park Zaria, Kaduna State, nearly every checkpoint, particularly those set up during the night when vegetable transporters are most active, demand payments. Regardless of the recipient, these payments are consolidated by the vegetable product transporters and categorized as road taxes.

To determine the number of tax collection points that exist along the designated market routes, all the checkpoints encountered where payments were made, within the data collection window of the road tax study spanning from mid-December 2023 to the first week of February 2024, were considered as tax collection points. As mentioned earlier in the methodology section of the report, the truck drivers, who are also one of the key actors in the vegetable transportation business, were trained as observers.

As presented in Chart 5, the trained Observers were selected from the two source states of Kaduna and Kano, with emphasis on the busiest market routes. For each of the states,

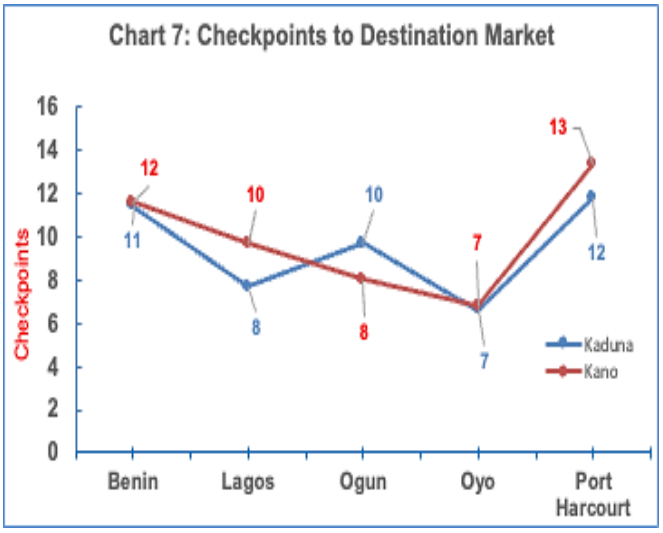
the destination markets that are most frequented have more Observers, this is to ensure that adequate data is collected on all the checkpoints. It is noteworthy that these checkpoints are also not particularly static hence, a significant amount of time is required to document accurately.



As indicated in Chart 6 therefore, a total of 40 Observers were recruited for six weeks to collect data on the number of checks across targeted markets. 22 of the Observers were from Kano State, while 18 were from Kaduna State. In the case of Kano, Benin and Lagos markets had five Observed each, while Ogun, Oyo and Port Harcourt were represented by 4 Observers each. In the case of Kaduna, Lagos, Ogun and Port Harcourt had 4 Observers each, while Oyo and Benin were represented by 3 Observers each.

In determining the number of tax collection points therefore, once again as stated in the methodology section of the report, a data collection tool, called "road tax collection point tracker" was developed and coded using a computer-based data collection platform called Kobotoolbox. The coded tool was then deployed to the mobile phones of the Observers. At every checkpoint, where money was demanded and paid, the Observers (the truck drivers and assistants), were required to fill in the road tax tracker and ~~send~~ submit the filled form immediately after each form had been completed. Through this process, the checkpoint tracker database was populated daily, throughout the six weeks of the data collection window.

At the end of the six-weeks data collection window, the checkpoints recorded in the database underwent a quality assurance process. Those that did not have evidence of payments made were removed from the database. Subsequently, all the submissions were aggregated by route and a weighted average was calculated for each route, to arrive at the number of tax collection points per route.



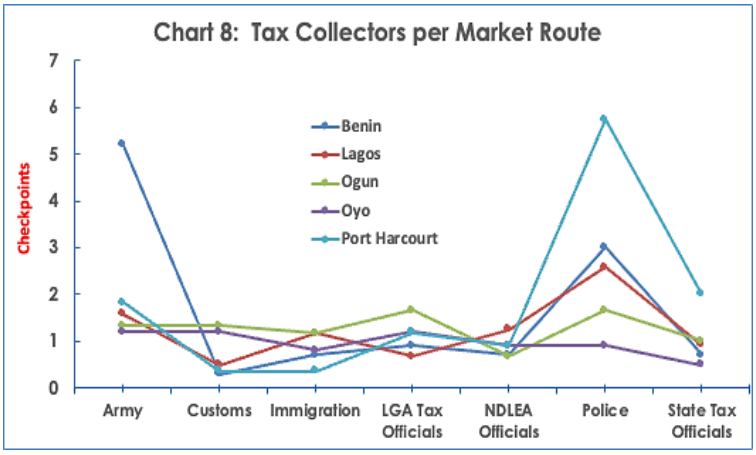
As highlighted in Chart 7, cumulatively across the five destination markets, a total of 97 checkpoints were encountered, disaggregated by 47 for Observers from Kaduna to the five destination markets and 50 for those leaving from Kano. As can also be seen from Chart 7, Benin, Ogun and Port Harcourt have the highest number of checkpoints, averaging 11 instances per location. While Lagos and Oyo trail with an average of 8 checkpoints.

Table 14: Overview of the Checkpoints per RoAute

	Kaduna	Kano
Benin	11	12
Lagos	8	10
Ogun	10	8
Oyo	7	7
Port Harcourt	12	13

Table 14, the source data for Chart 7, is presented as a quick overview of the tax collection points across the five target markets. In the table, Kaduna and Kano, the header of the table, are the sources states where the vegetables are sourced and transported to the destination markets. The rows are the destination markets where the vegetable products are eventually sold. For example, from Kaduna to Benin, there are 11 tax collection points, in the same vein, from Kano to Benin, 12 tax collections were reported.

To deepen understanding, the study also documented the personnel at the checkpoints who demanded gratifications from the vegetable products transporters. From Chart 8, there are seven prominent officials on the highway demanding road taxes from vegetable transporters. Of the personnel presented in Chart 8, the most frequent is the police. On average, there are 15 police checkpoints across all the market routes with Port Harcourt having the highest spike of police checkpoints averaging 7. The next on the chart is the checkpoints manned by the army, spotting an average of 8 checkpoints across the routes, with the most instances of army checkpoints found on the Benin route, which incidentally, is one of the passage routes to Port Harcourt. Government officials charged with the responsibility of collecting road taxes that the study Observers encountered during this study are only two, which are the States and LGAs tax officials – averaging 12 across all routes, with an average of 6 per route. Customs, Immigration and NDLEA officials, that were encountered in the process of collecting data for this study, charged taxes that were not necessarily related to vegetable produce transportation, however, vegetable produce transporters are forced to pay, regardless. Consequently, those taxes are categorized as unauthorized.



Objective 5: To establish the amount of tax payable per truck per route, disaggregated by truck type and route

Except for official taxes that disaggregate the amount payable in taxes by the sizes or weight of the vehicles, the unofficial tax collectors are not as charitable, the amount paid by the vegetable transporters is not based on any method or principle. As reported by Mallam Umar Sharif a truck driver from Kaduna State and corroborated by Alhaji Sani Muhammad Waziri, also a truck driver from Kano State, the amount a truck driver pays at a checkpoint is determined by many factors, principal amongst which are, the truck driver's negotiation skills, the mood of the security personnel and the time of the day when such taxes are demanded. As a result, disaggregating the taxes paid per truck was a little bit challenging, especially at the data collection point.

Assessing the disaggregation from the officially approved taxes angle, Alhaji Labaran Ayayafa shared that because of the time these taxes are collected (late in the night or very early in the day), the tax officials often resort to charging flat rates across all vehicle types, even when they the truck drivers are aware that the law has categorized these sums by truck capacity or type. Mallam Musa Yau, a truck driver from Kano State corroborated this situation by presenting a receipt of ₦7,000 he was charged in Rivers State for produce tax on a 22-wheeler trailer, as can be seen in Figure 12. According to him, he was surprised when the State tax official agreed to collect ₦7,000 from him for produce tax in place of about N25,000 that trucks of his size pay in River State. As a result of these fractures in the collection systems of the taxes, both official and unofficial, the study used the amounts paid by trucks as the nexus for the disaggregation regardless of whether they paid the correct amount or not, since the emphasis is on understanding how much each truck paid per route.

Figure 11: Produce Tax Receipts

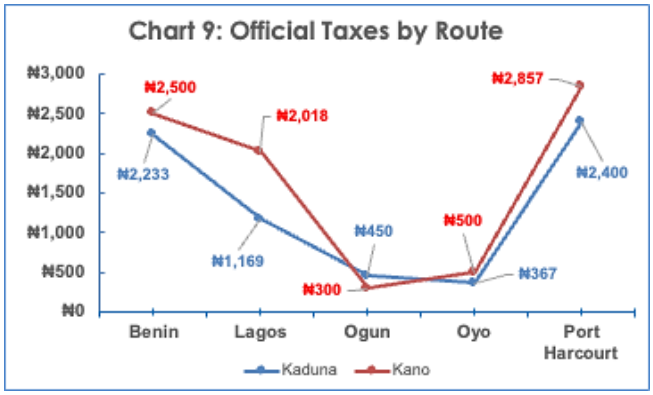
Tax Collected on Vegetable Products per Route

As earlier mentioned, there is no consistency in the amounts charged by the tax collectors at the collection points and this applies to both the official and non-official taxes. What is consistent is the fact that the truck drivers always part with monies that they believe are paid as taxes on the products they are transporting to the destination markets. Consequently, the disaggregation will be presented from the angle of the amounts paid by the transporters, as against the actual amounts they are expected to pay, especially for the official taxes.

In presenting the taxes collected, the two variants of taxes (official and unofficial), will be handled separately and at the end aggregated by route.

Official Road Taxes

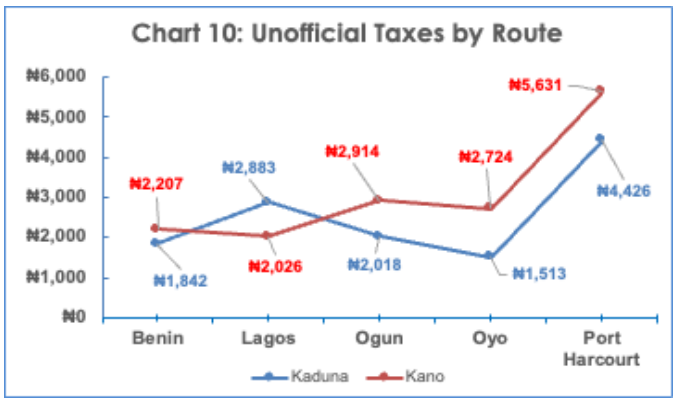
The distinguishing factor between the official and the unofficial taxes, in this case, is the receipt issued by the tax collectors. To an informed observer, that might be too simplistic, because, according to Mallam Buhari Abdullahi, a truck driver from Kano, in most cases, the truck drivers have the option of insisting on collecting a receipt for the official taxes. However, the driver will have to pay the full amount charged in that case. Where the driver opts to pay less, the condition will be that the tax official will not issue a receipt. In both scenarios, the amount paid is in respect of an officially approved road tax, but because it is not certain whether the latter amount collected, where receipts are not issued, will be paid into the government coffers, the study cautiously chose to treat such category of taxes as unofficial. As presented in Chart 9



therefore, the Oyo route from the two source states has the minimum amount paid per checkpoint of ₦367 and ₦300 for vegetable products from Kaduna and Kano States respectively, while Port Harcourt routes command the highest road tax per checkpoint of ₦2,400 and ₦2,857 from Kaduna and Kano Markets respectively. Consequently, on minimum of ₦14,794 is required in official taxes across all routes.

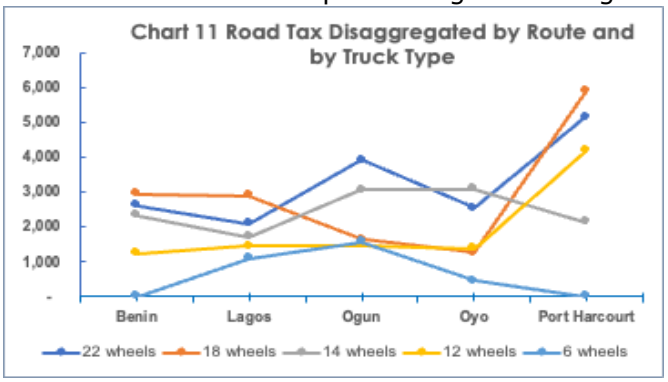
Unofficial Road Taxes

As reiterated earlier in the report, the unofficial taxes did not command any strategic method, either in the amounts collected or how they were collected. As a result, the disparity between the official and the unofficial road taxes is significant. In almost all cases, as exemplified in Chart 10, the unofficial road taxes are double what the truck drivers paid in official taxes at all the five targeted routes. For instance, a vegetable products transporter heading to the Oyo market from Kaduna pays 66% more in unofficial road taxes when compared to what they pay in official taxes. In the case of transporters from Kano, they pay 72% more in unofficial road taxes when compared to what they pay in official road taxes from Kano to Oyo market. At a minimum therefore, across all routes, ₦28,185 is paid on unofficial taxes, representing a 52% increase, when compared to what is paid officially as road taxes across all routes.



Road Taxes Disaggregated by Truck

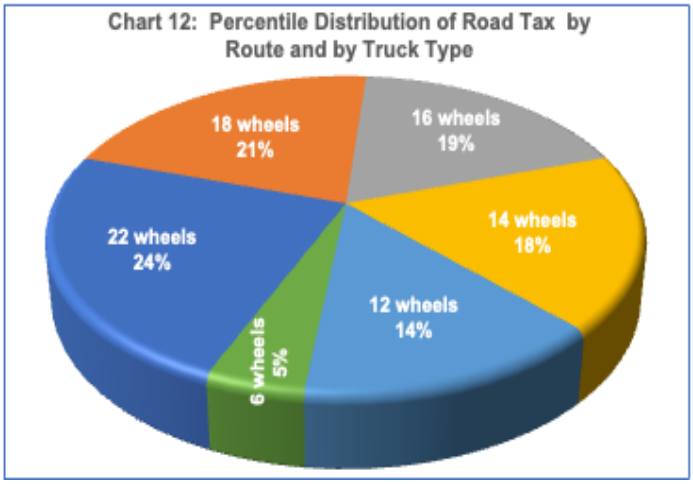
From the various responses of the stakeholders interviewed both for KII and FGD, and corroborated with the field data on checkpoints, road taxes especially the unofficial ones, are determined based on the whims of the collectors manning the checkpoints. According to Lawal Ali, a truck driver from Kano, and Yahaya Bala also a truck driver from Kaduna, the security personnel at the checkpoints do not outrightly quote an amount that they will collect, they expect the truck drivers to make the first move in presenting something and based on that, they will decide whether it is adequate or not. This position is further substantiated in Chart 11 where a 6 Wheels Mini Van on the Ogun route paid ₦1,567, while an 18 Wheeler Trailer on the same route paid only almost the same amount of ₦1,656. A Similar situation can be gleaned also on the Oyo route where a 16 Wheels Trailer paid ₦2,514 on road taxes, and an 18 Wheels Trailer on the same route paid ₦1,271 a 51% decrease, even though the 18 Wheels Trailer is of a high capacity and can accommodate more vegetables than the 16-Wheeler Trailer. These are some of the complications found with the unofficial taxes, throughout all routes.



In conclusion therefore, though it may sound appealing to have a disaggregated outlook of what is paid per 'truck type' per route, the non-systematic collection approach of the security personnel, coupled with the flexibility of the tax officers to negotiate what is eventually paid by the vegetable products transports, makes the disaggregation per truck

type somewhat ineffectual. There is also the factor of the distance covered and the number of checkpoints on that particular day, which is not consistent across. For Instance 22 Wheels high capacity truck going to Port Harcourt might be lucky to meet fewer checkpoints than the 6 Wheels minivan going to Ogun, which is unlucky to meet several checkpoints. If the amounts paid by these vehicles are compared, the minivan may end up paying more.

However, cumulatively across all routes, a total sum of ₦68,957 was reported as the road taxes paid by all the six truck types that participated in the study. When disaggregated in percentages by truck type and routes, Chart 12 presents the percentage of the road taxes paid by each of the six trucks across the five targeted markets. As presented in Chart 11, the 22-wheeled truck paid 24%, followed by the 18 and 16 Wheels paying 21%, and 19% respectively. But the argument still holds that this might be as a result of several factors, some of which have already been stated above. Hence, even though the taxes paid by each of the different truck types might seem hierarchical, several other variables that are outside the remit of this study have contributed to aligning the values, outside what is actually paid.



Conclusion

In concluding the road tax study, the two hypotheses postulated at the beginning of the study and other key conclusions drawn from the study objectives shall be used as the nexus around which the study conclusions will be presented. The first hypothesis attempts to draw a correlation between road taxes paid on vegetable products transported across the country and the availability of the products in the destination markets. The findings of this study did not support that assertion on two grounds.

1. Cumulatively, the average amount paid for vegetable products transportation to the destination markets is 15% of gross sales, meaning for every quantity of vegetable product sold, a 15% tax is expected. If this amount is juxtaposed with the tax regime in other spheres, PAYE – Pay as You Earn, (a convenient connotation for taxes paid by employees in Nigeria), amounting to about 24%, the road taxes of 15% on vegetable products transportation seems like a blessing in disguise to the vegetable produce value chain.

2. Prices of vegetable produce might have been affected by the challenges posed by the road tax collectors, but the quantity transported across markets is not, in some instances, the quantity has increased relatively. For example, according to Alhaji Mohammed Adamu, Chairman of the Sarina vegetable collection and distribution park, every week, between 15 – 30 trucks depart the park for the southern markets and this has been consistent for more than 5 months today. Therefore, the first hypothesis on incessant road taxes impacting negatively on the quantity of vegetable products transported across markets is null. The corollary effect of the increases in road taxes is the price for which the products are sold at the destination

markets. With the increases in the number of checkpoints and the rise in the amounts charged, the prices of vegetable products in the destination markets rose by 38%. At Kano market for instance, a large basket of tomatoes is sold at N7,714 and N8,333 at Kaduna, but at the destination markets, like Benin and Port Harcourt, the asking price of the same quantity of tomatoes is averaged at N39,500 and N53,500 respectively. Probing this situation further with one of the respondents, Alhaji Lawal Dalhatu Dalibi, a marketer from Dawaki Kudu, in Kano State, the situation that is forcing the prices of vegetable products to rise is multi-dimensional he said. The roads are bad, there are security challenges on the road, gasoline prices have been hiked, and so on, Alhaji Lawal reiterated. With all these problems, Alhaji Lawal reechoed that the prices of vegetable products and several other products transported across markets must increase. Drawing inferences from Alhaji Lawal's submission, therefore, the incessant and high road taxes did not affect the availability of vegetable products, it only affected the affordability of the products.

3. The submission above on the price differential between the source and the destination markets, to some degree validated the second hypothesis which postulated that the amount paid in taxes (official and non-official) by vegetable produce transporters impacts negatively on the prices of vegetable products in the market. What is known is that prices of vegetable products, especially tomatoes, are about 38% higher at the destination markets when compared to what is obtained at the source market. According to Alhaji Lawal, other exogenous factors also contribute to the hiking the prices of vegetable products. Consequently, the study's conclusion on hypothesis two is that it holds but partially.

4. Officially, an average of 15% of the gross market price of the vegetable products transported across markets are paid in taxes.

5. For the unofficial taxes on the other hand, the high taxes on vegetable products transportation that the market actors often lament about are those purportedly paid through the unofficial channels at the checkpoints. Between the truck owner, the truck manager and the truck driver, the story of between N150,000 – N175,000 paid in road taxes is rife. Sadly this fact was not supported by data collected for this study in the three weeks that the data collection process lasted. The story of the huge amounts paid in road taxes is very tangible when engaging the major actors in discussion, in some instances, some truck drivers were reported to have called either the truck owner or manager to report that the monies given him for road taxes is exhausted, requiring them to make immediately cash transfers to augment the shortfalls. Sadly this position is only in the narrative of those concerned, there is no substantive evidence to back the story.

Objective 6: To propose recommendations that will reduce the impact of taxes on vegetable prices.

From the findings of this study, the official taxes are somewhat within the regime of reasonability for two reasons. Firstly, when compared with what is paid by other categories of taxpayers in the country and secondly, the government of the two source states have categorized the producers of the vegetable products as smallholder farmers hence, sought to encourage them by waiving highly priced taxes such as produces tax and quarantine levies. The unofficial taxes, the situation is poles apart. All the above notwithstanding, two

broad recommendations are proposed, that may ultimately improve the performance of the vegetable markets, both in terms of product availability and affordability.

Improved Market Access – Long Range: The tax collectors, mostly the unofficial ones and in some negligible instances, the official ones, use untoward means in collecting the taxes, some of which bring about significant delays in the transportation process to the extent that the vegetable products are not delivered on time. In those instances, the marketers or producers of the products lost a portion of the product, because of its perishable nature. To forestall this state of affairs, and by extension reduce the degree of wastage in the sector, HortNigeria should embark on an aggressive advocacy campaign to the sub-national governments of the vegetable produce states for the provision of efficient transport infrastructures that will facilitate easy access to the markets for producers.

Two possible ideas are those proposed by the study respondents themselves, in their response to the question on how to better the process of moving vegetable products from farm gate to markets. The first recommendation is to advocate to the government to include a dedicated cargo train in its current plan for resuscitating rail transportation. According to the respondents, if products are moved by train to the southern markets, all the amounts paid in road taxes at checkpoints will be saved.

The second long-range recommendation is the facilitation of HortNigeria of cargo planes to transport vegetable products from the source states to the destination states. This will not only save time between harvest and delivery at the destination markets, but the push factor that comes with such enterprise will encourage vegetable farmers to increase production.

Strengthen Association of Vegetable Products Transporters – Short Range: The most exorbitant of the taxes on vegetable products transported across markets, is the lumpsum of between N150,000 – N175,000 charged before departure of the delivery trucks from their various collection centers. The huge amount is purportedly required for payment to the myriad of checkpoints on the highway. These sums can be completely eliminated if transparency and accountability can be built into the governance system of the vegetable transporters. For instance, every market actor in the vegetable transportation business using heavy trucks speaks passionately about the large sums of money required for payments at the checkpoints, but none of them can prove to the exactitude of how these monies are expended. It calls to reason therefore that with sufficient accountability in the governance system of the transporters themselves, there is the likelihood that these amounts will be saved or reduced to a minimum.

Reduce Instances of insecurity in the country: This and the next point, falls under the short-range recommendations for HortNigeria. The reason why several checkpoints laced the country's highways is incessant instances of insecurity, especially on the highways, a subtle pressure from HortNigeria, like supporting researchers or security experts to document and publish monthly instances of security challenges on the highway especially those encountered by vegetable products transporters is likely to put more pressure on the government to take more decisive action in curbing the menace.

Challenges

1. Because of the road usage law in most states, especially Kaduna and FCT, requiring that heavy or utility trucks can only ply the highway between 6 pm and 6 am, vegetable

products transportation can only happen at night. As a result, only the truck drivers and their assistants can safely play the role of tax collection points enumerators. The implication of this is the likely partiality that might creep into the data collection process because of the double roles they are playing.

2. The stakeholders in the transportation business associated with vegetable products transportation across the targeted routes were not comfortable with the study, and as a result, the majority were not amenable to the study. In most cases, the study team visited some collection and distribution centers severally without gaining the buy-in of the officials.

3. The government tax officials also were not amenable to the study. The study team had to resort to using personal contacts, the most prominent of which is PERL-ARC, to facilitate access to respondents.

4. The leadership system of the vegetable transporters is opaque, and the opacity permeates every strata of the various associations that coalesce to form the governance structure of the vegetable transporters. As a result of this, any request for information of whatever sort is met with subtle resistance, laced in the pretense of observing administrative protocols. For instance, the study team had to make an upward of 4 for 5 trips to a collection center before respondents are made available, and even at that, only a scanty number would be willing to engage.

Postscript

To further test the veracity of the study findings, in collaboration with HortiNigeria, a stakeholder dissemination event was held on March 21st, 2024. The dissemination event, which was bifocal in nature had 35 participants from the various sectors of the vegetable value chains, most prominent of which are the Marketers, Transporters, large scale producers, policy makers etc. Of the 35 participants that participated in the dissemination event, 23 were physically present at the HortiNigeria Kano Office where the event was anchored. The remaining 12 participated virtually via Microsoft TEAMS.

Key highlight of the event was the consensus by the participants on the opaqueness of the vegetable products taxes as presented by the study report in one of its findings. The participants were unanimous on the fact that huge sums are paid in road taxes for vegetable products' transportation, but accounting for such monies is a herculean task as presented by the study findings. To address this issue, the participants agreed with the study finding on the need for HortiNigeria to support the vegetable transporters associations with capacity building interventions that will enable them manage the union affairs more transparently.

On the security challenges in the country that necessitated the manning of the highways by security personnel, (some of whom the transporters accused of solicitations), the participants were also unanimous in their support of the study findings that HortiNigeria should embark on high level advocacy on the need to curb security challenges in the country. The participant however, added a second dimension to the advocacy, which is the need to address the deplorable condition of the interstate link roads across the country.

At the end of the two-hour long event, the participants accepted all the findings of the road tax study conducted by INL on behalf of HortiNigeria. The participant also expressed their appreciation of HortiNigeria's efforts in promoting a sustainable and inclusive horticulture sector in the country.